ऐरा/20010/एमवाईटीपी/टीकेआईएएल- त्रिवेन्द्रम/सीपी-III/2022-27
AERA/20010/MYTP/TKIAL-Trivandrum/CP-III/2022-27

परामर्श पत्र संख्या 25/2023-24
Consultation Paper No. 25/2023-24

भारतीय विमानपत्तन आर्थिक विनियामक प्राधिकरण
AIRPORTS ECONOMIC REGULATORY AUTHORITY OF INDIA

तिरूवनंतपुरम अंतर्राष्ट्रीय हवाईअड्डा, तिरूवनंतपुरम (टीआरवी) के संबंध में तृतीय नियंत्रण अवधि (01.04.2022 - 31.03.2027) के लिए वैमानिक टैरिफ निर्धारित करने के मामले में

IN THE MATTER OF DETERMINATION OF AERONAUTICAL TARIFF FOR THIRUVANANTHAPURAM INTERNATIONAL AIRPORT, THIRUVANANTHAPURAM (TRV) FOR THE THIRD CONTROL PERIOD (01.04.2022 - 31.03.2027)

जारी करने की तारीख : 12.02.2024
Date of issue: 12.02.2024

ऐरा भवन/AERA Building
प्रशासनिक कॉम्पलेक्स/Administrative Complex
सफदरजंग हवाईअड्डा/Safdarjung Airport
नई दिल्ली/New Delhi - 110003

Stakeholders' Comments

Thiruvananthapuram International Airport (TRV) is a Major Airport as per the definition outlined in Section 2 (i) of the Airports Economic Regulatory Authority of India (AERA) Act, 2008, read with the AERA (Amendment) Acts of 2019 and 2021, based on annual passenger throughput volume.

Thiruvananthapuram International Airport (TRV) was operated by the Airports Authority of India (AAI), which entered into a Concession Agreement with the current Airport Operator (Thiruvananthapuram (Kerala) International Airport Limited (TKIAL)) on 19th January 2021, to operate, manage and develop the Airport for a period of 50 years commencing from the Commercial Operation Date (COD). COD was achieved on 14th October 2021. The period from 1st April 2021 to 13th October 2021 has been considered as pre-COD period and the period from COD till 31st March 2022 has been considered as post-COD period. In this tariff determination exercise, since two Airport Operators are involved i.e., Airports Authority of India (pre-COD) and TRV (Kerala) International Airport Limited (post-COD), for the sake of clarity in this Consultation Paper, AERA has used AAI for Airports Authority of India and TKIAL for TRV (Kerala) International Airport Limited.

TKIAL, on 15th April 2022 sought clarification from the Authority related to control period for the airport. The Authority vide its Public Notice No. 05/2022-23 dated 20th June 2022 decided the following:

- *"To shift the Control Period for Trivandrum Airport from 01.04.2021-31.03.2026 to 01.04.2022-31.03.2027. The periodicity of the Control Period will be five years only.*
- *To consider the true up for 01.04.2021 to 31.03.2022 at the time of determination of tariff for the Third Control Period as per AERA policy."*

Following submissions have been made for the determination of aeronautical tariffs for the airport:

- On 14th December 2022, AAI submitted true-up proposal for Second Control Period and the period from 1st April 2021 to 13th October 2021.
- On 21st February 2023, TKIAL submitted true-up proposal for the period from 14th October 2021 (Commercial Operation Date (COD)) to 31st March 2022.
- On 21st February 2023, TKIAL also submitted Multi-Year Tariff Proposal (MYTP) for the Third Control Period (TCP) covering FY 2022-23 to FY 2026-27.

For this Consultation Paper, the Authority has considered the audited figures submitted by AAI for TRV for the Pre-COD Period (1st April 2021 to 13th October 2021) and the audited financials submitted by TKIAL for the period from 14th October 2021 (COD) till 31st March 2022 and from 1st April 2022 till 31st March 2023.

The Authority has released this Consultation Paper putting forward its proposals in the background of i) Government of India's decision to resume commercial flights and pick up in the passenger/ ATM traffic and ii) involvement of two Airport Operators in the tariff determination process.

The Authority shall consider written evidence-based feedback, comments, and suggestions from all the stakeholders on the proposals made in the Consultation Paper and pass a suitable Order determining the tariff for aeronautical services. The Authority would like to emphasize that the consultation process timelines are sacrosanct and hereby requests the stakeholders to provide their comments/ inputs within the timelines specified in this Consultation Paper, beyond which the same will not be considered by the Authority.

Thus, in accordance with the provisions of Section 13(4) of the AERA Act, the written comments on Consultation Paper No. 25/2023-24 dated 12th February 2024 are invited from the stakeholders, preferably in electronic form, at the following address:

Director (P&S, Tariff)
Airports Economic Regulatory Authority of India (AERA),
AERA Administrative Complex,
Safdarjung Airport, New Delhi – 110003, India
Email: director-ps@aera.gov.in, rajan.gupta1@aera.gov.in, inderpal.s@aera.gov.in copy to secretary@aera.gov.in

Stakeholders' Consultation Meeting (Virtual)	27th February 2024
Last Date for submission of comments	13th March 2024
Last Date for submission of counter comments	23rd March 2024

Comments and counter-comments will be posted on AERA website www.aera.gov.in
For any clarification/information, Director (P&S, Tariff) may be contacted on Telephone Number: +91-11-24695048.

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List of Abbreviations

Abbreviation	Expansion
A&G	Administrative & General
AAHL	Adani Airport Holdings Ltd
AAI	Airports Authority of India
AAICLAS	Airports Authority of India Cargo Logistics and Allied Services
AC	Air Conditioning
ACI	Airports Council International
ADP	Automatic Data Processing
AEL	Adani Enterprises Limited
AERA / the Authority	Airports Economic Regulatory Authority of India
AIC	Aeronautical Information Circular
AMC	Annual Maintenance Contract
AMSS	Automatic Message Switching System
ANS	Air Navigation Services
AO	Airport Operator
AOCC	Airport Operations Control Centre
AODB	Airport Operational Data Base
ARFF	Aircraft Rescue and Fire Fighting
ARR	Aggregate Revenue Requirement
ASQ	Airport Service Quality
ATC	Air Traffic Control
ATF	Aviation Turbine Fuel
ATM	Air Traffic Movement
ATS	Air Traffic Service
AUCC	Airport User Consultative Committee
BAS	Biometric Attendance System
BCAS	Bureau of Civil Aviation Security
BDDS	Bomb Detection and Disposal Squad
BHS	Baggage Handling System
BIAL	Bangalore International Airport Limited
BOQ	Bill of Quantity
BOT	Build-Operate-Transfer
BPCL	Bharat Petroleum Corporation Limited
BRS	Baggage Reconciliation System
CA	Concession Agreement
CAD	Computer Aided Design
CAGR	Compounded Annual Growth Rate
CAO	Chief Airport Officer
CAPEX	Capital Expenditure
CAR	Civil Aviation Regulations
CCR	Constant Current Regulators
CCTV	Closed Circuit Television
CFT	Crash Fire Tender
CGF	Cargo, Ground Handling and Fuel Supply to Aircraft
CHQ	Corporate Headquarters
CIAL	Cochin International Airport Limited
CISF	Central Industrial Security Force
CNS	Communication, Navigation and Surveillance
COD	Commercial Operation Date
COVID-19	Corona Virus Disease of 2019
CP	Consultation Paper
CPWD	Central Public Works Department

Abbreviation	Expansion
CSS	Corporate Support Service
CUSS	Common Use Self Service
CUTE	Common Use Terminal Equipment
CWIP	Capital Work in Progress
DCC	Direct Channel Complex
DFMD	Door Frame Metal Detector
DG Sets	Diesel Generator Sets
DGCA	Directorate General of Civil Aviation
DIAL	Delhi International Airport Limited
DSR	Delhi Schedule of Rates
DTB	Domestic Terminal Building
DVOR	Doppler Very High Frequency Omni Range
EHCR	Employee Head Count Ratio
EPOS	Electronic Point of Sale
ESS	Environmental Support Services
ETD	Explosive Trace Detectors
F&B	Food and Beverages
FA	Financing Allowance
FAR	Fixed Asset Register
FCP	First Control Period
FICCI	Federation of Indian Chambers of Commerce and Industry
FIDS	Flight Information Display System
FRoR	Fair Rate of Return
FTC	Fuel Throughput Charge
GA	General Aviation
GBR	Gross Block Ratio
GDP	Gross Domestic Product
GH	Ground Handling
GHA	Ground Handling Agent
GHIAL	GMR Hyderabad International Airport Limited
GoI	Government of India
GSE	Ground Support Equipment
GST	Goods & Service Tax
HIAL	Hyderabad International Airport Limited
HPCL	Hindustan Petroleum Corporation Limited
HR	Human Resources
HVAC	Heating, Ventilation and Air Conditioning
IAF	Indian Air Force
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICC	International Cargo Center
IDC	Interest During Construction
ILBS	Inline Baggage Screening
IMG	Inter-Ministerial Group
IND AS	Indian Accounting Standards
IOCL	Indian Oil Corporation Limited
IoT	Internet of Things
IP-AMSS	Internet Protocol Automatic Message Switching System
IT	Information Technology
JARS	Joint Asset Reconciliation Statement
KWP	Kilowatt peak
LED	Light Emitting Diode

Abbreviation	Expansion
LOA	Letter of Award
MEP	Mechanical, Electrical and Plumbing
MESS	Mechanized Environmental Support Services
MHE	Material Handling Equipment
MIAL	Mumbai International Airport Limited
MoCA	Ministry of Civil Aviation
MoRTH	Ministry of Road Transport & Highways
MSSR	Monopulse Secondary Surveillance Radar
MYTP	Multi-Year Tariff Proposal
NAR	Non-Aeronautical Revenue
NASFT	National Aviation Security Fee Trust
NOTAM	Notice To Air Missions
NITB	New Integrated Terminal Building
O&M	Operation and Maintenance
OMC	Oil Marketing Companies
OPEX	Operating Expenditure
OWS	Oil Water Separators
PAR	Plinth Area Rate
PBB	Passenger Boarding Bridges
PBG	Performance Bank Guarantee
PBT	Profit Before Tax
PCN	Pavement Classification Number
PHP	Peak Hour Passenger
PIDS	Perimeter Intrusion Detection System
PMC	Project Management Consultancy
PO	Purchase Order
PPP	Public Private Partnership
PSF	Passenger Security Fee
PV	Present Value
QTR	Quarters Ratio
R&M	Repairs and Maintenance
RAB	Regulatory Asset Base
RBI	Reserve Bank of India
RCC	Reinforced Cement Concrete
RCS	Regional Connectivity Scheme
RESA	Runway End Safety Area
RF links	Radio Frequency links
RFP	Request for Proposal
RHQ	Regional Headquarters
SCP	Second Control Period
SITC	Supply, Installation, Testing and Commissioning
SMR	Surface Movement Radar
SOFR	Secured Overnight Financing Rate
SPV	Special Purpose Vehicle
STP	Sewage Treatment Plant
TB	Terminal Building
TBLR	Terminal Building Ratio
TCP	Third Control Period
TKIAL	TRV (Kerala) International Airport Limited
TR stall	Travellers Requisite Stalls
TRV/TIA	Thiruvananthapuram International Airport
UDAN	Ude Desh ka Aam Naagrik

Abbreviation	Expansion
UDF	User Development Fees
ULD	Unit Load Devices
UPS	Uninterruptible Power Supply
VCS	Video Communication System
VDGS	Visual Docking Guidance System
VIP	Very Important Person
WAN	Wide Area Network
WDV	Written Down Value
WIP	Work in Progress
WPI	Wholesale Price Index
XBIS	X-ray Baggage Inspection Systems
YPP	Yield Per Passenger
YTD	Year To Date
Units of measure (UOM)	
Cr	crores
FY	Financial Year
MPPA	Million Passenger Per Annum
MT	Metric Tonne
PAX	Passenger
Sqm	Square meter
Y-o-Y	Year-on-Year

1 INTRODUCTION

1.1 Background

1.1.1 Thiruvananthapuram (also known as Trivandrum) is the capital of the state of Kerala and a major hub for Information Technology. It is the most populous city in Kerala. Thiruvananthapuram International Airport (TRV), established in 1932, holds the distinction of being the first airport in the state of Kerala, India. Its inaugural flight took off on 1st November 1935. The Airport is situated 3.7 kilometers away from the city centre and is in close proximity to various prominent destinations such as Kovalam beach and the under-construction Vizhinjam International Seaport.

1.1.2 TRV operates with two terminals. Terminal-I, which commenced operations in 1985, primarily handles domestic flight operations, excluding those of Air India. Terminal-II was inaugurated in 2011 and serves as the hub for all international flight operations along with domestic flights operated by Air India.

1.1.3 TRV is a Major Airport as per the definition outlined in Section 2 (i) of the Airports Economic Regulatory Authority of India (AERA) Act, 2008, read with the AERA (Amendment) Acts of 2019 and 2021.

1.1.4 As of year ended 31st March 2023, TRV stands as the second busiest airport in Kerala in FY 2022-23 and the fourteenth busiest in India, catering to around 4 MPPA in FY 2019-20 (pre-COVID) and 3.5 MPPA in FY 2022-23 (post-COVID). The traffic handled by the Thiruvananthapuram International Airport during the financial years from 2016-17 to 2022-23 is given in the table below:

Table 1: Actual Passenger and ATM traffic as submitted by TRV and available in AAI website from 2016-17 to FY 2022-23

Year	Passenger (in No's)			ATMs (in No's)		
	Domestic	International	Total	Domestic	International	Total
2016-17	1,571,767	2,309,742	3,881,509	12,473	16,644	29,117
2017-18	1,916,127	2,477,342	4,393,469	14,680	19,058	33,738
2018-19	1,904,908	2,529,551	4,434,459	14,452	18,641	33,093
2019-20	1,709,229	2,209,964	3,919,193	14,030	14,812	28,842
2020-21	476,559	458,876	935,435	5,111	4,202	9,313
2021-22	699,447	956,059	1,655,506	7,010	8,346	15,356
2022-23	16,79,385	17,98,682	34,78,067	12,270	12,324	24,594

1.1.5 Technical and Terminal Building details of TRV submitted by the TKIAL are provided in the table below:

Table 2: Technical and Terminal Building details of TRV submitted by TKIAL

Particulars	Details
Terminal Building (TB)	Terminal-I – 15,800 sqm Terminal-II – 43,500 sqm
Total Airport Area	630 acres Carved Out approx. 30 Acres Demised approx. 600 Acres
Designated Capacity	Terminal-I – 1.3 MPPA Terminal-II – 3.2 MPPA
Main Runway orientation and length	Runway 14/32, dimension 3,373m x 45m
Taxiway	23m wide
Apron	International - 13 Narrow body equivalent Domestic - 11 Narrow body equivalent
Operational hours	24 hours

Particulars	Details
Aerodrome Category	4E
Immigration Counters	16
Check in counters	38
Passenger Boarding Bridges	Domestic – 2 International – 4

1.2 Development of TRV through PPP mode

1.2.1 TRV was operated by the Airports Authority of India (AAI) which entered into a Concession Agreement with TKIAL on 19th January 2021 to operate, manage and develop the Airport for a period of 50 years commencing from the Commercial Operation Date (COD). The COD was achieved on 14th October 2021 in accordance with the terms and conditions mentioned in the Concession Agreement. In consideration for the grant of such concession, TKIAL shall pay AAI a monthly concession fee during the concession period, namely, specified amount of 'Per Passenger' fee for both domestic and international passengers (refer to Annexure 4 in Chapter 17 for the relevant clause of the Concession Agreement).

1.2.2 However as per the terms of the Concession Agreement and Memorandum of Understanding (MoU) dated 25th August 2021, only the AAI through the designated GoI agencies shall be authorized to undertake the 'reserved services' at the airport, namely, CNS/ATM services, Security services, Meteorological services, Mandatory health services, Customs control, Immigration services, Quarantine services and any other services as may be notified by GoI (refer to Annexure 4 in Chapter 17 for the relevant clause of the Concession Agreement).

1.3 Cargo, Ground Handling and Fuel Operations

Cargo Operations

1.3.1 TRV handled cargo volume of approx. 25,511 MT in 2019-20 (pre-COVID) which comprised 23,488 MT of international cargo and 2,023 MT of domestic cargo. Prior to the COD, domestic air cargo operations were managed by AAICLAS in a facility (Carved out area) with a 2,600-ton capacity.

1.3.2 The area of the Cargo facility retained in the Carved-out area, i.e., ear-marked for AAICLAS is 8,301 sqm as per Annexure IV of Schedule A to the Concession Agreement (refer to Annexure 4 in Chapter 17). Hence under the Concession Agreement, this cargo area is retained by AAICLAS and not transferred to TKIAL.

1.3.3 Clause 19.4.1 of Concession Agreement details the obligations of TKIAL for upgrading, developing, operating and maintaining the Cargo Facilities in accordance with the provisions of the Concession Agreement, Applicable Laws, Permits and Good Industry Practices (refer to Annexure 4 in Chapter 17)

1.3.4 Pursuant to the terms of the Concession Agreement and to cater to the growing demands at TRV, TKIAL started to participate in the cargo handling business. Accordingly, TRV has started processing domestic cargo from August 2022 onwards.

1.3.5 In this regard. AERA vide order no. 47/2021-22 dated 17th March 2022 allowed TKIAL to levy the existing charges for Domestic Cargo Handling Services at TRV till 30th September 2022. On 23rd September 2022, an interim Order No. 24/2022-23 was issued allowing TKIAL to levy the existing tariff as on date 30th September 2022 for a further period of 6 months w.e.f. 1st October 2022 till 31st March 2023. Further, to avoid a regulatory vacuum, AERA vide Order No. 42/2022-23 dated 23rd March 2023 allowed TKIAL continuation of existing rates for the Cargo facility till 30th September 2023 and thereafter vide Order No.

20/2023-24 dated 27th September 2023 allowed TKIAL to continue the existing rates for the Cargo facility till 31st March 2024.

1.3.6 The cargo operations have also been factored in the ARR of TKIAL. The major components such as capital expenditure, depreciation, operating expenses and revenues with respect to the cargo operations and facilities have been presented separately in the respective sections.

Ground Handling Operations

1.3.7 Clause 19.2 of the Concession Agreement details TKIAL's obligations towards provision of infrastructure required for ground handling services at the TRV in accordance with the provisions of the Agreement, Applicable Laws and Good Industry Practice (refer to Annexure 4 in Chapter 17).

1.3.8 Further, subject to the provisions of the Concession Agreement, TKIAL has the right to grant license to any entity for providing Ground Handling Services at TRV, on the terms and conditions mentioned in the License Agreement between TKIAL and the potential service providers.

1.3.9 Pursuant to above terms of the Concession Agreement, TKIAL has engaged GSEC Bird Airport Services Private Limited and Air India SATS Airport Services Private Limited for provision of such Ground Handling services at TRV through a bidding process, resulting in a revenue share of 45% of Gross Revenue from each of the service providers.

Fuel Facility Operations

1.3.10 Clause 19.3 of the Concession Agreement lists down TKIAL's obligations towards providing aircraft fueling services, which has been detailed in Annexure 4 in Chapter 17.

1.3.11 Previously, when the airport was operated by AAI, various Oil Marketing Companies (OMCs) were providing fuel services at the airport using their own infrastructure. As mandated by the Concession Agreement (CA), TKIAL is planning to build an open access facility and is in the process of acquiring the existing assets of IOCL, BPCL and HPCL along with setting up a hydrant refueling system.

1.3.12 The fuel farm operations have also been factored in the ARR of TKIAL. The major components such as capital expenditure, depreciation, operating expenses, and revenues with respect to the fuel farm operations and facilities have been presented separately in the respective sections.

2 TARIFF DETERMINATION OF THIRUVANANTHAPURAM INTERNATIONAL AIRPORT

2.1 Introduction

2.1.1 AERA was established by the Government of India vide notification No. GSR 317(E) dated 12th May 2009. The functions of AERA, in respect of Major Airports, are specified in section 13(1) of The Airport Economic Regulatory Authority of India Act, 2008 ('AERA Act' or 'The Act') read with AERA (Amendment) Act 2019 and 2021, which are as below:

a) To determine the tariff for aeronautical services taking into consideration:
   - (i) The capital expenditure incurred and timely investment in improvement of airport facilities.
   - (ii) The service provided, its quality and other relevant factors.
   - (iii) The cost of improving efficiency.
   - (iv) Economic and viable operation of major airports.
   - (v) Revenue received from services other than aeronautical services.
   - (vi) The Concession offered by the Central Government in any agreement or memorandum of understanding or otherwise.
   - (vii) Any other factor which may be relevant for the purposes of the Act.

   Provided that different tariff structures may be determined for different airports having regard to all or any of the above considerations specified in sub-clauses (i) to (vii).

b) To determine the amount of development fees in respect of major airports.

c) To determine the amount of passenger service fee levied under rule 88 of the Aircrafts Rules, 1937 made under the Aircraft Act, 1934.

d) To monitor the set performance standards relating to quality, continuity and reliability of service as may be specified by the Central Government or any Authority by it in this behalf.

e) To call for such information as may be necessary to determine the tariff under Clause 13(1)(a).

f) To perform such other functions relating to tariffs, as may be entrusted to it by the Central Government or as may be necessary to carry out the provisions of this Act.

2.1.2 The terms "Aeronautical services" and "Major Airports" are defined in Sections 2(a) and 2(i) of the Act, respectively.

2.1.3 As per the AERA Act, 2008, following are the Aeronautical services:

i. Aeronautical services provided by the Airport Operators.
ii. Cargo, Ground Handling and Fuel Supply Services; and
iii. Air Navigation Services.

2.1.4 AAI shall be handling the Air Navigation Systems (ANS) at TRV. Tariff for ANS is presently regulated by the Ministry of Civil Aviation (MoCA) of India to ensure uniformity across the Airports in India. All the assets, expenses and revenues pertaining to ANS are considered separately by the Ministry while determining tariff for ANS services. Further, the tariff for ANS services is determined at the Central level by the Ministry to ensure uniformity across the Airports in the Country. Hence, AERA determines tariff for Aeronautical services of the Airport by excluding the assets, expenses, and revenues from ANS.

2.2 Authority's orders applied in tariff proposals in this Consultation Paper

2.2.1 Detailed Guidelines laying down information requirements, periodicity and procedure for Tariff determination have been issued by the Authority. The details of Authority's Orders and Guidelines issued in this regard are as under:

i. Order No. 13 dated 12.01.2011 (Regulatory philosophy and approach in Economic Regulation of Airport Operators) and Direction No. 5 dated 28.02.2011 (Terms and conditions for determination of tariff for Airport Operators); and

ii. Order No. 05 dated 02.08.2010 (Regulatory philosophy and approach in Economic Regulation of the services provided for Cargo facility, Ground Handling and Supply of Fuel to aircrafts); Order No. 12 dated 10.01.2011 and Direction No. 4 dated 10.01.2011 (Terms and conditions for determination of tariff for services provided for Cargo facility, Ground Handling and Supply of Fuel to aircrafts).

iii. Order No. 07/2016-17 dated 13.06.2016 (Normative Approach to Building Blocks in Economic Regulation of Major Airports).

iv. Order No. 14/2016-17 dated 23.01.2017 in the matter of aligning certain aspects of AERA's Regulatory Approach (Adoption of Regulatory Till) with the provisions of the National Civil Aviation Policy – 2016 (NCAP-2016) approved by the Government of India.

v. Order No. 20/2016-17 dated 31.03.2017 in the matter of allowing Concession to Regional Connectivity Scheme (RCS) Flights under RCS – Ude Desh ka Aam Naagrik (UDAN) at Major Airports.

vi. Order No. 35/2017-18 dated 12.01.2018 and Amendment No. 01 to Order No. 35/2017-18 dated 09.04.2018 in the matter of determination of useful life of Airport assets.

vii. Order No. 42/2018-19 dated 05.03.2019 in the matter of Determination of Fair Rate of Return (FRoR) to be provided on Cost of Land incurred by various Airport Operators in India.

2.3 Past tariff determination history of Thiruvananthapuram International Airport

2.3.1 Pursuant to the AERA Act 2008, the Authority issued guidelines for the purpose of determination of aeronautical tariffs at Major Airports. AAI had submitted Multi Year Tariff Proposals (MYTP) for the First Control Period from FY 2011-12 to FY 2015-16 for TRV, in respect of which the Authority had determined the Aeronautical tariff vide its Order No. 15/2015-16 dated 17th April 2015.

2.3.2 With respect to the Second Control Period of TRV commencing from FY 2016-17 to FY 2020-21, the Authority had determined the Aeronautical tariff vide its Order No. 03/2017-18 dated 2nd June 2017 read with addendum dated 28th June 2017 and corrigendum dated 1st December 2017. Also, the Authority had issued Order No. 25/ 2020-21 dated 2nd July 2020 with respect to provision of compensation in lieu of Fuel throughput charges at TRV.

2.3.3 AAI and TKIAL entered into a Concession agreement on 19th January 2021 for Operations, Management and Development of TRV and the date of Commercial Operations (COD) was 14th October 2021. The following are the tariff orders for Aeronautical Charges and Cargo respectively issued by the Authority for TRV.

Table 3: Tariff orders issued by the Authority for TRV

Tariff Orders	Applicability period
Order No. 03/2017-18 dated 2nd June 2017	Second Control Period order till 31st March 2021

Tariff Orders	Applicability period
Ad hoc Order No. 65/2020-21 dated 24th March 2021	w.e.f. 1st April 2021 to 30th September 2021
Order No. 19/2021-22 dated 22nd September 2021 (for AAI)	w.e.f. 1st October 2021 to 31st March 2022
Order No. 22/2021-22 dated 6th October 2021 (for the new AO)	till 31st March 2022
Order No. 42/2021-22 dated 14th March 2022	w.e.f. 1st April 2022 to 30th September 2022
Order No. 22/2022-23 dated 20th September 2022	w.e.f. 1st October 2022 to 31st March 2023
Order No. 41/2022-23 dated 22nd March 2023	w.e.f. 1st April 2023 to 30th September 2023
Order No. 19/2023-24 dated 20th September 2023	w.e.f. 1st October 2023 to 31st March 2024

Table 4: Cargo Tariff orders issued by the Authority for TRV

Tariff Orders	Applicability period
Order No. 42/2020-21 dated 1st September 2020 (for AAICLAS)	First Control Period w.e.f. 1st October 2020 up to 31st March 2024
Ad hoc Order No. 47/2021-22 dated 17th March 2022	w.e.f. 1st April 2022 till 30th September 2022
Order No. 24/2022-23 dated 23rd September 2022	w.e.f. 1st October 2022 till 31st March 2023
Order No. 42/2022-23 dated 23rd March 2023	w.e.f. 1st April 2023 till 30th September 2023
Order No. 20/2023-24 dated 27th September 2023 (CGF)	w.e.f. 1st October 2023 till 31st March 2024

2.4 Multi Year Tariff Proposal submission by TKIAL for Third Control Period

2.4.1 In terms of Direction No. 05 issued on 28th February 2011 (Terms and Conditions for Determination of Tariff for Airport Operators), Control Period means a period of five Tariff Years during which the Multi Year Tariff Order and Tariff(s) as determined by the Authority pursuant to such order shall subsist. Thus, TKIAL, on 15th April 2022 sought clarification from the Authority relating to the control period that is applicable for TRV. The Authority vide its Public Notice No. 05/2022-23 dated 20th June 2022 decided the following:

- *"To shift the Control Period for Trivandrum Airport from 01.04.2021-31.03.2026 to 01.04.2022-31.03.2027. The periodicity of the Control Period will be five years only.*
- *To consider the true up for 01.04.2021 to 31.03.2022 at the time of determination of tariff for the Third Control Period as per AERA policy."*

2.4.2 In compliance with the above, the following submission were made to the Authority for Tariff determination of Third Control Period:

- On 14th December 2022, AAI submitted true-up proposal for Second Control Period and the period from 1st April 2021 to 13th October 2021.
- On 21st February 2023, TKIAL submitted true-up proposal for the period from 14th October 2021 (Commercial Operation Date (COD)) to 31st March 2022.
- On 21st February 2023, TKIAL also submitted Multi-Year Tariff Proposal (MYTP) for the Third Control Period (TCP) covering FY 2022-23 to FY 2026-27.

Tariff determination for the pre-COD and post-COD period

a) Pre-COD Period:

2.4.3 AAI submitted its true up proposal for the Second Control Period and Pre-COD period from 1st April 2021 to 13th October 2021 vide email dated 14th December 2022. The document is available on the AERA website. To ensure clarity and understanding, a chronological timeline was established to represent the sequence of events leading up to the issue of Consultation Paper. The timeline captures key milestones such as the submission of the proposal, the preliminary scrutiny, the identification of discrepancies, the commencement of the inquiry, and the subsequent provision of information by AAI which has been presented in the table below:

Table 5: Sequence of events regarding true up submissions by AAI

S. No.	Event	Date
1	Submission of original true up proposal of AAI	14th December 2022
2	Review of true-up submission and documentation provided by AAI	December 2022 to March 2023
3	Additional information on Operating Expenses	March 2023
4	Additional information on water charges and personal cost	May 2023
5	Additional information on Capital Expenditure, Non- Aeronautical Revenue	June 2023
6	Additional information on left over assets	November 2023

b) Post COD:

2.4.4 The tariff determination for the post-COD period has been considered for TKIAL under the following categories:

a) True up of the period from COD till 31st March 2022
b) Tariff determination for the Third Control Period i.e., from 1st April 2022 to 31st March 2027.

2.4.5 TKIAL in line with Authority's decision as stated in para 2.4.1, submitted its MYTP for true up of Post COD period and determination of aeronautical tariff for Third Control Period on 21st February 2023. The document is available on the AERA's website.

Table 6: **Sequence of events regarding true up and MYTP submissions by TKIAL**

S. No.	Events	Date
1	Submission of MYTP by AO	21st February 2023
2	Additional information on RAB, Operating Expenses, Traffic & FRoR	April 2023
3	Clarifications and details relating to Operating Expenditure	May 2023
4	Clarifications on Work-In-Progress assets	May 2023
5	Additional information and Clarification on Capital Expenditure Projects	May 2023 to July 2023
6	Submission of financials for FY 2022-23	July 2023
7	Clarifications relating to Capital Expenditure and Operating Expenditure	July 2023
8	Clarifications relating to Non-Aeronautical Revenue - Master Service Agreement etc.	August 2023
9	Additional information relating to Capital Expenditure and Operating Expenditure	August 2023
10	Assessment report relating to Terminal-1 Building	September 2023
11	Clarifications relating to Capital Expenditure	September 2023
12	Additional information relating to Operating Expenditure, Non-Aeronautical Revenues and Capital Expenditure on CAPEX, OPEX & NAR	November 2023
13	Clarifications with respect to Capital Expenditure	December 2023
14	Status of Capital Expenditure projects, Head count, costs incurred till December 2023	January 2024
15	Additional information relating to actual traffic and Fuel volumes till December 2023	January 2024

2.4.6 As operations of TRV was taken over by TKIAL from the COD, i.e., 14th October 2021, the Authority has considered to true up the necessary building blocks of TKIAL for a period of 169 days commencing from

14th October 2021 up to 31st March 2022. Accordingly, the Authority has considered the Third Control Period of five years for TKIAL from 1st April 2022 to 31st March 2027.

2.4.7 The Authority has appointed an independent consultant, M/s PKF Sridhar & Santhanam LLP, to assess the MYTP submitted by TKIAL for the Third Control period. M/s PKF Sridhar & Santhanam LLP has assisted the Authority in examining the true up submission of AAI for the Second Control Period and Pre-COD period, by comparing each regulatory building block with the Tariff Order for the Second Control period, reviewing true up submission of TKIAL for the Post COD period, performed independent studies on the allocation of assets between Aeronautical and Non-aeronautical activities and efficient O&M expenses of TRV for the Second Control Period and FY 2021-22, examined the MYTP of TKIAL by verifying the data from various supporting documents submitted by TKIAL such as audited financials, Fixed Asset Register, Bill of Quantities of capital addition projects including award of various work orders, examining the building blocks in tariff determination, visiting the Airport in December 2023 and also ensuring that the treatment given to it is consistent with the Authority's methodology, approach etc.

2.4.8 Further to the presentation on MYTP made by TKIAL, the Authority advised TKIAL to re-evaluate the Capital Expenditure projects proposed by it as part of the MYTP submission, inter alia, considering the current passenger handling capacity at the Airport, traffic trends for present and future etc. together with the need to ensure modular construction of facilities as mandated by the Concession Agreement. Revised Capital Expenditure estimates have not been submitted by TKIAL. Therefore, the Authority has, in this Consultation Paper, assessed the Capital Expenditure requirements based on the assessment of current traffic scenario, available capacities, future traffic estimates, and the need to ensure modular development of infrastructure at the Airport, with a view to ensure determination of optimal Aeronautical charges to be levied on the airport users.

2.4.9 In carrying out the analysis of MYTP submitted by TKIAL, the Authority has carried out review of all details, break up of cost items etc. provided by TKIAL together with considering the financials of FY 2022-23 and status of projects as of December 2023. Wherever details have not been provided/ not completely provided, the Authority has carried out appropriate rationalisation of such costs. The Authority also has, in its analysis, indicated certain activities where the costs are proposed to be considered on incurrence basis. These have been elaborated in the relevant paragraphs.

2.4.10 The Authority notes that Clause 5.7.1 of Direction 5/2010-11 pertaining to Terms and Conditions for determination of Tariff for Airport Operators Guidelines, 2011 states as follows:

"For any service provided by the Airport Operator for (i) ground handling services relating to aircraft, passengers and cargo at an airport; (ii) the cargo facility at an airport and (iii) supplying fuel to the aircraft at an airport, the Authority shall follow the regulatory approach and process for tariff determination as mentioned in the Direction No. 4/ 2010-11 on Terms and Conditions for determination of Tariff for services provided for Cargo facility, Ground Handling and Supply of Fuel to the Aircraft Guidelines, 2011".

Further, Clause 1.2 of the Direction No.4/ 2010-11 states as follows:

"these Guidelines shall apply to Service Provider(s) for (i) the Cargo facility at a Major Airport, (ii) ground handling relating to aircraft, passengers and cargo at a major airport and for (iii) supplying fuel to the aircraft at a major airport: Provided that Airport Operator providing the Regulated Service(s) as defined herein shall be excluded from the application of these Guidelines.

2.4.11 Taking cognizance of the above provisions laid out under Direction 5/2010-11 and Direction 4/2010-11 and the fact that TKIAL is providing the services for cargo facility and supplying fuel to the aircraft, the Authority has examined the Assets, Expenses and Revenues pertaining to Cargo and Fuel farm of TKIAL separately under the relevant chapters in this Consultation Paper, for the purpose of determining Aggregate Revenue Requirement of TKIAL.

Related Party Transactions

2.4.12 The Authority, through its Independent Consultant, conducted an analysis of the tendering procedures implemented by TKIAL and has reviewed the associated contract agreements concerning operating expenses and revenues entered into with related parties.

2.4.13 The Authority, on a sample review of contracts, notes that TKIAL has entered into contract with certain Related Parties as detailed hereunder.

Table 7: Services provided to TKIAL by related parties

S. No.	Nature of Services	Name of Related Party	Description of Relationship
1	Master Service Agreement to operate and manage Non-Aeronautical Facilities	Adani Airport Holdings Limited	Company holding 49% shareholding in TKIAL
2	Corporate Support Service	Adani Airport Holdings Limited	Company holding 49% shareholding in TKIAL
3	Corporate Support Service	Adani Enterprises Limited	Holding Company
4	Borrowing	Adani Airport Holdings Limited	Company holding 49% shareholding in TKIAL

The Authority also notes the following from the Concession Agreement signed between TKIAL and AAI:

"5.6.1 The Concessionaire agrees and undertakes that it shall procure contracts, goods and services for the operations, management and development of the airport in a fair, transparent and efficient manner and without any undue favour or discrimination in this behalf. In pursuance hereof, it shall, within six (6) months from the COD, frame policy specifying the principles and procedures that it shall follow in awarding for supply of goods and services, and shall place the policy on its website for the information of general public and all interested parties, The policy shall:

(a) include the principles and procedures followed for sub-leasing, sub-licensing or grant or allocation of any space, building, rights or privileges to private entities in the Airport

(b) be approved by the Board of Directors of the Concessionaire

5.6.2 For procurement of goods, works, services, sub-lease(s), sub-license(s) or any other rights or previleges where the consideration (including deposits in any form or respect thereof) exceeds Rs. 25,00,00,000/- (Rupees Twenty Five Crore) in any accounting year (collectively, the ***contracts****) the Concessionaire shall invite offers through open competitive bidding by means of e-tendering and shall select the awardees in accordance with the policy specified under clause 5.6.1*

5.6.3 The Parties agree that the Concessionaire should pre-quality and short-list the applicants in a fair and transparent manner for ensuring that only experienced and qualified applicants are finally selected on arm's length basis in a manner that is commercially prudent and protects interest of users."

5.6.4 The Concessionaire hereby agrees not to have any subsidiary or joint venture or any other similar form of arrangement with any other party.

2.4.14 AERA expects that TKIAL and the AAI, (Concession granting Authority) will ensure that the contracts with Related Parties are at arm's length and that the Related Party has experience of providing similar service in other places to ensure protection of interest of all stakeholders, as per the terms of the Concession Agreement detailed above, which may be followed in letter and spirit.

2.5 Construction of this Consultation Paper

2.5.1 This Consultation Paper has been developed in the order of the events as explained above. Chapter-wise details have been summarized as follows:

i. A background on Thiruvananthapuram International Airport and TKIAL is explained in Chapter 1. The background of the Authority's tariff determination process is explained in this Chapter and in Chapter 3, wherein the framework for determination of tariff is discussed.

ii. Chapter 4 lists out the submissions by AAI for true up of for the Second Control Period and Pre- COD period. This is followed by the Authority's examination and proposals on the specific issues regarding the true up for the Second Control Period and Pre COD period. This chapter also discusses the assessment and the outcome of the studies conducted by the Authority regarding asset allocation ratios between aeronautical and non-aeronautical assets and efficient cost segregation between aeronautical and non-aeronautical operating expenses. The summary of these reports is given under Annexures to this Consultation Paper and the reports have been appended separately to the Consultation Paper.

iii. Chapter 5 lists out submission of TKIAL for true up of the Post COD period. This is followed by the Authority's examination and proposals on the specific issues regarding the true up for the Post COD period. This chapter also discusses the assessment and the outcome of the studies conducted by the Authority regarding asset allocation ratios between aeronautical and non-aeronautical assets and efficient cost segregation between aeronautical and non-aeronautical operating expenses. The summary of these reports is given under Annexures to this Consultation Paper and the reports have been appended separately to the Consultation Paper.

iv. Chapter 6 presents the submissions by TKIAL regarding Traffic Projections and the Authority's examination and proposal on the same.

v. Chapter 7 includes the submissions by TKIAL regarding Capital Expenditure (CAPEX), Depreciation and RAB for the Third Control Period along with the Authority's detailed examination, adjustments, rationalization and proposals on the Aeronautical capital expenditure, useful lives and RAB for the Third Control Period.

vi. Chapter 8-13 includes the submissions by TKIAL regarding various building blocks pertaining to the Third Control Period including Fair Rate of Return, Inflation, Operation and Maintenance Expenses, Non-aeronautical Revenue, Taxation and Quality of Service along with Authority's examination and proposals on each matter.

vii. Chapter 14 presents the Aggregate Revenue Requirement as determined by the Authority based on the proposals for the Third Control Period.

viii. Chapter 15 summarizes the Authority's proposals put forward for consultation.

ix. In Chapter 16, the Authority invites views of all the stakeholders regarding proposals put forward for tariff determination for the Third Control Period in the Consultation Paper.

x. Chapter 17 contains Annexures.

- Annexure 1 – Summary of study on allocation of assets between Aeronautical and Nonaeronautical assets
- Annexure 2 – Summary of study on efficient Operation and Maintenance expenses
- Annexure 3 –Projects not considered for addition to RAB by the Authority for the Third Control Period
- Annexure 4 – Clauses of the Concession Agreement entered between AAI and TKIAL

xi. Chapter 18 contains the list of Appendices.

2.6 Studies commissioned by the Authority

2.6.1 The Authority commissioned the following studies through its Independent Consultant for the purpose of tariff determination of TRV:

a) **Study on allocation of Assets between Aeronautical and Non-Aeronautical Assets**: The Study (herein after referred to as “Study on Allocation of Assets”) has carried out a detailed analysis of the Regulatory Asset Base (RAB) of both AAI and TKIAL. The study has developed a rationale for classification of assets into Aeronautical, Non-aeronautical, Air Navigation Services (ANS) and Common. It then apportioned the Common assets based on appropriate ratios. Further, the Study has also examined the assets transferred from AAI to TKIAL (as on COD) and determined the Deemed Initial RAB as on COD.

b) **Study on efficient Operation and Maintenance Expenses:** The Study (herein after referred to as Study on Opex) examined the historical trends in the O&M expenses of TRV and assessed how the Airport has been performing in comparison to select peers in the industry. The Study verified the classification of the various expenses between Aeronautical, Non-aeronautical, ANS and Common and made revisions wherever necessary. The Common expenses were further apportioned based on appropriate ratios. Further, the Study ascertained the expenses that were unreasonably high and rationalized them based on suitable benchmarks.

2.6.2 The recommendations of these studies have been used in this Consultation Paper. The summary of the Study on Allocation of Assets is given in Annexure 1 of this Consultation Paper and the study is attached as Appendix 1 of this Consultation Paper. The summary of the Study on Opex is given in Annexure 2 of this Consultation Paper and the study is attached as Appendix 2 of this Consultation Paper.

3 FRAMEWORK FOR TARIFF DETERMINATION OF THIRUVANANTHAPURAM INTERNATIONAL AIRPORT FOR THE THIRD CONTROL PERIOD

3.1 Methodology

3.1.1 The Methodology adopted by the Authority to determine Aggregate Revenue Requirement (ARR) is based on AERA Act, 2008 read with AERA (Amendment) Act 2019 and 2021, the AERA (Terms and Conditions for determination of Tariff for Airport Operators) Guidelines, 2011 and further Guidelines issued by AERA from time to time.

3.1.2 As per the guidelines, the Authority has adopted the Hybrid-Till mechanism for tariff determination for the Third Control Period wherein, 30% of the non-aeronautical revenues is to be used for cross-subsidizing the aeronautical charges and the same methodology is utilized for true up of all the regulatory blocks of the Second Control Period.

3.1.3 The ARR for a given Control Period, under Hybrid Till mis calculated as

$$ARR = \sum_{t=1}^{5} ARR_t$$

$$ARR_t = (FRoR\ x\ RAB_t) + D_t + O_t + T_t - s\ \ x\ NAR_t$$

where,

t is the tariff year in the control period, ranging from 1 to 5
ARR_t is the Aggregate Revenue Requirement for tariff year ‘t’
FRoR is the Fair Rate of Return for the Control Period
RAB_t is the Aeronautical Regulatory Asset Base for tariff year ‘t’
D_t is the Depreciation corresponding to the Regulatory Asset Base for tariff year ‘t’
O_t is the Aeronautical Operation and Maintenance expenditure for the tariff year ‘t’
T_t is the Aeronautical taxation expense for the tariff year ‘t’
s is the cross-subsidy factor for revenue from services other than Aeronautical services under the Hybrid Till methodology followed by the Authority, s = 30%.
NAR_t is the Non-Aeronautical Revenue in tariff year ‘t’.

3.1.4 Based on ARR, Yield per passenger (Y) is calculated as per the formula given below:

$$Yield\ per\ passenger\ (Y) = \frac{\sum_{t=1}^{5} PV(ARR_t)}{\sum_{t=1}^{5} VE_t}$$

where,

$PV\ (ARR_t)$ is the Present Value of ARR for all the tariff years. All cash flows are assumed to occur at the end of the year. The Authority has considered discounting cash flows, one year from the start of the Control Period.

VE_t is the passenger traffic in year ‘t’

3.1.5 All the figures presented in this Consultation Paper have been rounded off up to two decimals.

3.2 Revenues from Air Navigation Services (ANS)

3.2.1 TKIAL will be performing aeronautical services such as landing, parking, ground handling, cargo, and fuel supply services at TRV and has submitted revenue projections for the same in the Third Control Period in its MYTP. However, AAI shall be handling the Air Navigation Systems (ANS) at TRV and hence the MYTP submitted by TKIAL does not consider revenues, expenditure, and assets on account of ANS.

3.2.2 Tariff for ANS is presently regulated by the Ministry of Civil Aviation (MoCA). All the assets, expenses and revenues pertaining to ANS are considered separately by the Ministry while determining tariff for ANS services. Further, the tariff for ANS services is determined at the Central level by the Ministry to ensure uniformity across the Airports in the Country. Hence, AERA determines tariff for Aeronautical services of TKIAL by excluding the assets, expenses, and revenues from ANS.

4 TRUE UP OF AAI FOR THE SECOND CONTROL PERIOD AND PRE-COD PERIOD

4.1 Background

4.1.1 AAI entered into a Concession Agreement dated 19th January 2021 with Thiruvananthapuram (Kerala) International Airport Limited (TKIAL, the 'Concessionaire') to operate, manage and develop TRV, Thiruvananthapuram for a period of 50 years commencing from the Commercial Operation Date (COD), i.e., 14th October 2021.

4.1.2 As per the Concession Agreement between AAI and TKIAL (Clause 28.11.3), the amount which was due and payable by the Concessionaire to AAI, is subject to reconciliation, true up and final determination by AERA.

4.1.3 Pursuant to the above Concession Agreement, AAI has submitted True up workings for the Second Control Period and for period from 1st April 2021 up to 13th October 2021.

4.1.4 The true up workings submitted by AAI covers the following building blocks:

i. Traffic
ii. Regulatory Asset Base
iii. Depreciation
iv. Fair Rate of Return
v. Operation and Maintenance Expenses
vi. Return on Land
vii. Non-aeronautical Revenue
viii. Aeronautical Revenue
ix. Taxes

4.1.5 The Authority has examined AAI's true up submission in detail. Analysis of the Authority, has been organized as follows:

i. Recorded AAI's submission regarding different regulatory building blocks for true up of the Second Control Period and Pre-COD Period
ii. Recapped the decisions taken by the Authority in the Tariff Order for the Second Control Period (Order No. 03/2017-18 dated 2nd June 2017)
iii. Provided Authority's examination and proposals regarding the true up calculation of each regulatory building block for the Second Control Period and Pre-COD Period

4.1.6 The Authority has considered the following documents for determining true up for the Second Control Period and Pre-COD Period:

i. Tariff Order for Thiruvananthapuram International Airport (Order No. 03/2017-18) dated 2nd June 2017.
ii. Trial balance figures of AAI for the Second Control Period and Pre-COD Period
iii. AERA Guidelines and Orders
iv. Authority's decisions on the Regulatory Building Blocks as per previously issued Tariff Orders of other airports.

4.2 AAI's submission of True up for Second Control Period and Pre-COD period (from FY 2016-17 to COD)

4.2.1 AAI has submitted a True Up submission on 14th December 2022. The details of the submission made by AAI have been provided below:

Table 8 : Submission of True up by AAI for Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Opening RAB	357.01	454.87	437.76	450.07	485.12		507.88	
Closing RAB	454.87	437.76	450.07	485.12	507.88		503.87	
Average Regulatory Asset Base (RAB)	405.94	446.32	443.92	467.60	496.50		505.88	
Fair Rate of Return (FRoR)	14%	14%	14%	14%	14%		14%	
Return on Average RAB	56.83	62.48	62.15	65.46	69.51	**316.44**	38.03	**354.47**
Depreciation	29.48	33.56	37.55	39.92	43.04	**183.55**	22.74	**206.29**
Operating Expenditure	111.01	136.60	152.05	169.01	127.64	**696.30**	70.78	**767.08**
Interest on Working Capital	-	-	-	-	-	**-**	0.68	**0.68**
Return on Land	-	-	-	-	-	**-**	0.33	**0.33**
Corporate Tax	-	5.04	28.39	4.44	-	**37.88**	156.44	**194.32**
Add: Carry forward of Shortfall from First Control Period	158.83	-	-	-	-	**158.83**	-	**158.83**
Less: Deductions for Non-aeronautical Revenues	16.69	17.43	22.59	26.64	7.37	**90.72**	6.84	**97.56**
Total ARR	**339.47**	**220.24**	**257.55**	**252.20**	**232.82**	**1,302.28**	**282.16**	**1,584.44**
Revenue earned from Aeronautical Services	137.07	214.14	271.75	229.27	60.46	**912.70**	39.32	**952.01**
(Excess) / Shortfall	**202.40**	**6.10**	**(14.20)**	**22.93**	**172.35**	**389.59**	**242.84**	**632.43**
PV Factor	1.81	1.59	1.39	1.22	1.07		1.00	
PV of (Excess) / Shortfall	**366.89**	**9.71**	**-19.81**	**28.05**	**184.98**	**569.83**	**242.84**	**812.67**

4.3 Authority's examination of True up submitted by AAI for Second Control Period and Pre-COD Period

4.3.1 The Authority has taken cognizance of the decisions taken at the time of determination of tariff for the Second Control Period and has then proceeded to examine the same as part of the tariff determination for the current Control Period.

4.3.2 The decisions taken at the time of determination of tariff for Aeronautical services for the Second Control Period vide Order No. 03/2017-18 dated 2nd June 2017 have been reproduced below:

Table 9 : Decisions taken by the Authority in Order no. 03/2017-18 for the Second Control Period

S. No	Particulars	Decision no. and Description
1	Traffic Forecast	3a. The Authority decides to consider the ATM and passenger traffic as per Table 19. 3b. The Authority decides to true up the traffic volume (ATM and passengers) based on actual traffic in the 2nd Control period while determining tariff for the 3rd control period.
2	Opening Regulatory Asset Base	5a. The Authority decides to consider the opening regulatory base for the 2nd control period under Hybrid Till as Rs. 344.54 crores.

S. No	Particulars	Decision no. and Description
3	Capital Expenditure	6a. The Authority decides to consider allowable project cost of Rs. 471 crores and accordingly to reckon the amount of Rs. 471 crores as addition for total assets during the 2nd control period. 6b. The Authority directs AAI to undertake user stakeholder consultation process for major capital expenditure items as per the Guidelines. 6c. The Authority decides to true up the Opening RAB of the next control period depending on the capital expenditure incurred and date of capitalization of underlying assets in a given year.
4	Depreciation	7a. The Authority decides to adopt depreciation rates as per Table 28 and depreciation for the 2nd control period as per Table 29. 7b. The Authority proposes to consider the recommendations of the study on depreciation and finalize the depreciation rates in consultation with the stakeholders. It shall make necessary adjustments in RAB and true up of depreciation while considering tariff determination in future.
5	RAB	8a. The Authority decides to consider RAB for the 2nd control period as given in Table 31. 8b. The Authority decides to true up the RAB of 2nd control period based on actual asset addition and revised depreciation rates based on the Authority's decision on the study commissioned by the Authority, at the time of determination of tariff for the 3rd control period.
6	FRoR	9a. The Authority decides to consider the FRoR at 14% for TRV for the 1st and 2nd control period. 9b. The Authority decides to undertake a study to determine FRoR for major AAI airports given the low debt structure of AAI as a whole.
7	Non-Aeronautical Revenues	10a. The Authority decides to consider the revenues accruing to AAI on account of the aeronautical services of Cargo facility, Ground Handling Services and Supply of fuel to aircraft (FTC) including land lease rentals and building rent from these activities as aeronautical revenue. 10b. The Authority decides to consider the Non-Aeronautical revenue as per Table 35. 10c. The Authority decides that Non-Aeronautical revenues will be trued up if it is higher than the projected revenues. In case there is a shortfall, true up would be undertaken only if the Authority is satisfied that there are reasonably sufficient grounds for not realizing the projected revenues.
8	Operation and Maintenance Expenditure	11a. The Authority decides to consider the operational and maintenance expenditure as given in Table 41, for the purpose of determination of aeronautical tariffs for the 2nd control period. 11b. The Authority expects AAI to reduce O&M expenditure over a period of time. 11c. The Authority decides to true up the O&M expenditure for 2016-17 to 2020-21 of the 2nd control period based on the actuals at the time of determination of tariffs for the 3rd control period.
9	Taxation	12a. The Authority decides to consider the corporate tax for aeronautical activities as per Table 43 for the 2nd control period. 12b. The Authority decides to true up the difference between the actual/ apportioned corporate tax paid and that estimated by the Authority for the 2nd control period during determination of tariffs for the 3rd control period.
10	Aeronautical Revenue	13a. The Authority decides to consider the Annual Tariff proposals as given in Table 46 (and Annexure) for determination of tariff during 2nd control period as the present value of proposed revenues (yield) by AAI is lower than the present value of ARR (yield) as per Authority. 13b. The Authority decides to continue with waiver of landing charges for (a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators (b) Helicopters of all types as

S. No	Particulars	Decision no. and Description
		approved by Govt. of India vide order no. G.17018/7/2001- AAI dated 9th February 2004 in order to encourage and promote intra-regional connectivity at TRV. 13c. The Authority decides to provide waiver of landing and other charges in line with Order No. 20/2016-17 dated 31st March 2017 of the Authority. 13d. The Authority decides to merge UDF and PSF (facilitation) charges and only UDF charges to be applicable on each domestic and international embarking passenger w.e.f. 1st July 2017. 13e. The Authority decides to consider shortfall/ excess in revenues for the 2nd control period based on proposed tariffs by AAI while determining aeronautical tariffs for the 3rd control period.

4.4 True up of Traffic

<u>AAI's submission for true up of Traffic for Second Control Period and Pre-COD period</u>

4.4.1 AAI has submitted the following passenger and ATM traffic based on actuals for the Second Control Period and Pre-COD Period:

Table 10 : AAI's submission for True up of traffic for the Second Control Period and Pre-COD period for TRV

Year	Passenger (in Nos)			ATM (in Nos)		
	Domestic	International	Total	Domestic	International	Total
FY 17	1,571,767	2,309,742	3,881,509	12,473	16,644	29,117
FY 18	1,916,127	2,477,342	4,393,469	14,680	19,058	33,738
FY 19	1,904,908	2,529,551	4,434,459	14,452	18,641	33,093
FY 20	1,709,229	2,209,964	3,919,193	14,030	14,812	28,842
FY 21	476,559	458,876	935,435	5,111	4,202	9,313
Total (FY17 to FY21)	**7,578,590**	**9,985,475**	**17,564,065**	**60,746**	**73,357**	**134,103**
Pre-COD (1st April 2021 to 13th October 2021)	263,194	302,459	565,653	3,125	3,428	6,553

<u>Recap of decisions taken by the Authority for Traffic at the time of tariff determination for the Second Control Period</u>

4.4.2 The Authority vide decision no. 3 of Order no 03/2017-18 dated 2nd June 2017 decided the following with respect to Traffic for Second Control Period:

- *Decision no. 3.a. The Authority decides to consider the ATM and Passenger traffic as per Table 19.*
- *Decision no. 3.b. The Authority decides to true up the traffic volume (ATM and Passengers) based on actual traffic in 2nd control period while determining tariffs for the 3rd Control Period.*

Table 11: Traffic as approved by the Authority for Second Control Period (Table 19 of Second Control Period order)

Year	Passenger (In Nos)			ATM (In Nos)		
	Domestic	International	Total	Domestic	International	Total
FY 17	1,555,119	2,388,270	3,943,389	12,600	16,961	29,561
FY 18	1,772,835	2,507,684	4,280,519	13,860	17,640	31,499
FY 19	2,021,032	2,633,068	4,654,100	15,246	18,345	33,591
FY 20	2,303,976	2,764,721	5,068,698	16,770	19,079	35,849
FY 21	2,626,533	2,902,957	5,529,490	18,447	19,842	38,289
Total	**10,279,495**	**13,196,700**	**23,476,196**	**76,923**	**91,867**	**168,789**

Authority's examination and proposal for Traffic as part of True-up of the Second Control Period and the Pre-COD Period

4.4.3 The Authority verified the actual Passenger traffic and ATM (as per Table 10) for the Second Control Period based on the details available on AAI's website and noted no variances.

4.4.4 The Authority examined the actual passenger traffic and ATM of TRV with the traffic projections approved by the Authority for the Second Control Period (as per Table 11) and noted that the actual Passenger and ATM traffic for the first three tariff years of the Second Control Period is more or less in line with that approved by the Authority in the Tariff Order for the Second Control Period, with minor deviations.

4.4.5 The Authority notes that there has been a decrease in the Passenger and ATM traffic from FY 2019-20 due to the closure of operations by Jet Airways with no replacement for vacant slots and the impact of COVID-19 pandemic towards the end of FY 2019-20.

4.4.6 The actual traffic for the 5th tariff year viz., FY 2020-21 is significantly lower than the projections in Tariff order for the Second Control Period, due to the adverse impact of the COVID-19 pandemic.

4.4.7 Further, the Authority has considered the actual traffic handled in FY 2021-22 till COD for true up of the Pre COD period as AAI has operated the Airport till 13th October 2021 and the remaining period of FY 2021-22 is post COD when the traffic was handled by TKIAL.

4.4.8 Based on the above facts, the Authority proposes to consider the actual passenger traffic and ATM as submitted by AAI for true up of the Second Control Period and Pre-COD period as given in Table 10.

4.5 True up of Capital Expenditure (CAPEX)

AAI's submission for true up of RAB for the Second Control Period and Pre-COD Period:

4.5.1 AAI has submitted the details of capital additions during the Second Control Period and Pre-COD period as follows:

Table 12: Capital Additions incurred during Second Control Period and Pre-COD Period submitted by AAI

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD* (B)	Total (A+B)
Aero additions (A)	128.31	16.38	49.76	73.74	68.05	**336.24**	17.60	**353.84**
Non-aero additions (B)	0.00	0.04	0.11	0.03	0.05	**0.23**	-	**0.23**
Other additions** (C)	0.17	2.11	4.45	3.23	1.72	**11.68**	-	**11.68**
Total additions (A + B + C)	**128.47**	**18.53**	**54.32**	**77.01**	**69.82**	**348.15**	**17.60**	**365.75**

** Pre-COD refers to the period from 1st April 2021 to 13th October 2021*
*** Other Additions include assets related to Cargo and ANS/CNS operations like XBIS, DVOR, DVOR Building, HF RX Antenna, Radio equipment test set, IP AMSS server network, etc.*

4.5.2 AAI has classified the above capital additions into Aeronautical, Non-aeronautical, ANS and Common as shown below:

Table 13: Asset Classification submitted by AAI

Asset Category	Asset Sub-Category / Description	Asset classification
Boundary-Freehold	Construction of boundary wall	Aeronautical

Asset Category	Asset Sub-Category / Description	Asset classification
Building Freehold	Extension of airside corridor & CISF barrack, construction of new fire station, provision of RCC ramp in NITB	Aeronautical
	Civil infrastructure works at ATC complex and for examination and renovation of toilet in ANS building	Aeronautical
	Provision of canopy in existing walkway, Provision of emergency Casualty center, modification of cargo complex	Aeronautical
	Civil infrastructure works at Cargo complex	Aeronautical
	Renovation of toilet in admin building	Aeronautical
	Construction of DVOR building, replacement of DVOR	ANS
	Provision of Casualty center, Modification of Arrival & Departure Hall	Common
	Provision of shed for parking in AAI residential Colony, children's park in AAI residential Colony	Common
Computer Software	Software application - MS Office 2016, 2019, Auto CAD for Civil engineering	Aeronautical
	MS office 2016	Aeronautical
Furniture & Fixtures	Preparation table and benches for egress, Providing boarding gate counter, immigration counters & check in counters, Supply of chairs	Aeronautical
	Table and Chair for CNS/ATM block	Aeronautical
	Sofa, Locker, Visitors chair, Senate conference table, Supply of Optimizer	Aeronautical
	Acrylic Painting On Canvas, Statue etc	Aeronautical
Furniture & Fixture - Trolley	Procurement Of 250 Passenger Baggage Trolley	Aeronautical
Office Appliances	Complaint Kiosk, LED Monitors, Printers, LED Signages, Smart TV, CCTV	Aeronautical
	Office Equipment required at CNS/ATM department	Aeronautical
	Desktop/Scanner/Cards etc	Aeronautical
	Water Dispenser/telephone Cables/ID Card Machines	Aeronautical
	Termination of Toll Booth Camera	Aeronautical
	Procurement of IT infrastructure for Common User Domestic Cargo Terminal (CUDCT)	Aeronautical
	Precision biometric integrated attendance, matrix biometric device	Common
Plant & Equipment - Freehold	Integration of tower ATS automation with AOCC, Provision of way findings signage, Replacement of existing old DG sets & CCR, Supply of threat containment vessel, CUTE & CUSS, scanner, keyboard, Runway rubber removal machine	Aeronautical
	Replacement of conventional lamp, SITC of RF links for remote sites CNS, SITC 10KVA MOD UPS for IPAMSS CNS, providing comprehensive VCS at AAI, SITC of augmentation of tower ATS automation	Aeronautical
	Supply of weighing scale	Aeronautical
	Provision of ventilation for DTB & Admin, BAS device, SITC of network equipment, ALCO SENSOR IVCM with printer	Aeronautical
	Provision of addl. AC units at various locations, Replacement of cooling towers at NITB, SITC of CCTV upgradation, Provision of garden lighting at NITB, Procurement of boom lift	Aeronautical
	Toll booth	Aeronautical
	SITC of Cargo XBIS	Cargo*
	SITC of HF RX antenna, Procurement of survey equipment, Procurement of WAN routers for ADP and AMSS, Procure radio communication test set	ANS
	Biometric access control systems, Replacement of old split/window AC	Common
	Provision of borewell, standby pumps, rewiring of residential colony	Common
Plant & Equipment - Leasehold	XBIS Lease	Aeronautical

Asset Category	Asset Sub-Category / Description	Asset classification
Runway, Taxiway & Apron	Resurfacing & strengthening of runway, construction of additional apron, extension of parallel taxi track	Aeronautical
Solar Panel	SITC of 500 KWP grid connected solar	Aeronautical
Vehicle	Ambulance, BDDS & Dog Squad vehicles, Mobile command post, tractor, tow tug trolley	Aeronautical
	Cargo trolley	Cargo*
	Vehicles used for ANS activities	ANS

**Cargo assets are Assets related to bonded cargo activities within the airport operational area managed by the AAI until FY 2016-17*

4.5.3 Further, AAI has submitted that the above common assets have been allocated into aeronautical and non-aeronautical by using the following ratios:

Table 14: Ratios submitted by AAI for the Second Control Period and Pre-COD Period

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD*
Employee Head Count Ratio (Aeronautical : Non-Aeronautical)	98.41% : 1.59%	98.31% : 1.69%	98.01% : 1.99%	98.51% : 1.49%	98.44% : 1.56%	98.28% : 1.72%
Staff Quarters Ratio (Aeronautical : ANS)	78.12% : 21.88%	78.12% : 21.88%	74.07% : 25.93%	73.91% : 26.09%	71.43% : 28.57%	85.00% : 15.00%
Terminal Building Ratio (Aeronautical : Non-Aeronautical)	92% : 8%					

**Pre-COD refers to the period from 1st April 2021 to 13th October 2021*

4.5.4 Considering the above, AAI has submitted RAB for the Second Control Period and Pre-COD Period as follows:

Table 15: RAB for the Second Control Period and Pre-COD period submitted by AAI

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Opening RAB (A)	357.01	454.87	437.76	450.07	485.12		507.88*	
Addition (B)	128.31	16.38	49.76	73.74	68.05	**336.24**	17.60	**353.84**
Addition - Financing Allowance (C)	2.05	0.14	0.32	2.89	3.23	**8.64**	1.41	**10.05**
Depreciation (D)	29.48	33.56	37.55	39.92	43.04	**183.55**	22.74	**206.29**
Depreciation - Financing Allowance (E)	0.01	0.07	0.09	0.17	0.35	**0.69**	0.27	**0.96**
Sales/Disposals/Transfers (F)	3.01	-	0.14	1.48	5.14	**9.77**	-	**9.77**
Closing RAB (G = A + B + C - D - E - F)	**454.87**	**437.76**	**450.07**	**485.12**	**507.88***		**503.87**	
Average RAB [(A + G) ÷ 2]	**405.94**	**446.31**	**443.91**	**467.59**	**496.50**		**505.87**	

** Opening RAB for the Pre COD period is the closing RAB of FY 2020-21*

<u>Recap of decision taken by the Authority for RAB at the time of tariff determination for the Second Control Period</u>

4.5.5 The Authority vide its decision no. 5, 6 and 8 of Order no. 03/2017-2018 dated 2nd June 2017 decided the following with respect to Opening Aeronautical RAB, Additions and RAB for Second Control Period:

- *Decision no. 5.a The Authority decides to consider the opening regulatory base for the 2nd Control Period under Hybrid Till as Rs. 344.54 crore.*

- *Decision no. 6.a. The Authority decides to consider allowable project cost of Rs. 471 crores and accordingly to reckon the amount of Rs. 471 crores as addition for total assets during the 2nd control period.*
- *Decision no. 6.c. The Authority decides to true up the Opening RAB of the next control period depending on the capital expenditure incurred and date of capitalization of underlying assets in a given year.*
- *Decision no. 8.a. The Authority decides to consider RAB for 2nd Control Period as given in Table 31.*

Table 16: RAB as approved by Authority in the Tariff Order for Second Control Period (Table 31 of the Order)

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Opening RAB (A)	344.54	419.13	422.47	391.53	381.67	
Addition (B)	105.00	36.00	-	20.00	310.00	**471.00**
Depreciation (C)	30.41	32.66	30.94	29.86	34.87	**158.74**
Sales/Disposals/Transfers (D)	-	-	-	-	-	-
Closing RAB (E = A + B – C – D)	**419.13**	**422.46**	**391.52**	**381.66**	**656.80**	
Average RAB [(A + E) ÷ 2]	**381.83**	**420.79**	**406.99**	**386.59**	**519.23**	

- *Decision no. 8.b. The Authority decides to true up the RAB of 2nd control period based on actual asset addition and revised depreciation rates based on the Authority's decision on the study commissioned by the Authority, at the time of determination of tariff for the 3rd control period.*

<u>Authority's examination and proposal for RAB as part of tariff determination for the Second Control Period and Pre-COD Period:</u>

4.5.6 The Authority had undertaken the "*Study on Allocation of Assets between Aeronautical and Non-Aeronautical Assets*" to carry out a detailed analysis of the Regulatory Assets, apportion the common assets based on appropriate ratios, and examine the assets transferred from AAI to TKIAL.

4.5.7 The Authority notes the following while comparing the RAB as submitted by AAI for true up (Table 15) and that approved in Second Control Period tariff order (Table 16):

- There is a difference between Opening RAB as on 1st April 2016 as submitted by AAI and that approved by AERA in the Second Control Period Order. This variation has been discussed in para 4.5.9.
- AAI has not capitalized a significant part of the additions of capital expenditure that it had proposed at the time of determination of tariffs for the Second Control Period. The same has been discussed in para 4.5.13.

Opening RAB for the Second Control Period

4.5.8 The Authority notes that at the time of determination of tariff for the Second Control Period, in the Tariff Order, the Opening RAB for FY 2016-17 was determined to be Rs. 344.54 crores (Decision No. 5a, Tariff Order No. 03/2017-18 dated 2nd June 2017). The details are as follows:

Table 17: Opening RAB of Second Control Period approved by AERA in the Second Control Period Order

(Rs. in crores)

Particulars	Ref.	Amount
Original Cost of Airport Aeronautical Assets excluding CNS/ATM related assets as on 01.04.2011	A	420.00
Aeronautical asset addition during the First Control Period	B	128.15
Cost of Aeronautical Assets as on 31.03.2016	**C = A + B**	**548.15**

Particulars	Ref.	Amount
Accumulated Depreciation as on 31.03.2016	D	203.61
Closing RAB as on 31.03.2016	**E = C – D**	**344.54**
Opening RAB as on 01.04.2016	**F = E**	**344.54**

4.5.9 For true-up, AAI has considered a slightly different value for Opening RAB for FY 2016-17 from what was approved by AERA in the Tariff Order for TRV for the Second Control Period. The opening RAB submitted by AAI as part of the true up proposal submission is Rs. 357.01 crores. On seeking clarification, AAI has submitted the following justification for the difference of Rs. 12.48 crores – *"the reason for variation is that certain assets were inadvertently excluded during the tariff finalization process for the Second Control Period. However, these assets were subsequently identified and included when transferring them to TKIAL. Consequently, these assets have been duly considered and accounted for in the Opening RAB for the Second Control Period"*.

4.5.10 Based on the explanation provided by AAI and the comparison of the left-out assets (the list of left out assets are detailed in Annexure 1 of Appendix 1) with the physical verification report (Joint Asset Reconciliation Statement (JARS) dated 4th November 2022 signed between AAI and TKIAL team), it is noted that these assets exclusively belong to TRV. Hence, the Authority proposes to include these left out assets as part of the Opening RAB for FY 2016-17 of the Second Control Period.

4.5.11 Further, the Authority notes that the classification of the left-out assets by AAI aligns with the allocation principles determined by the Authority in the Second Control Period for Opening RAB, as stated in para 8.3 of Order No. 03/2017-18 dated 2nd June 2017.

4.5.12 The Authority, based on the above facts, proposes to consider the opening RAB for true-up of the Second Control Period as given below.

Table 18: Opening RAB for Second Control Period proposed by the Authority

(Rs. in crores)

Particulars	Ref.	Amount
Opening RAB as on 01.04.2016 as per Second Control Period Order (A)	Table 17	344.54
Assets left out of opening block as on 1.04.2016 (B)	Annexure 1 of the Independent Study	12.48
Revised Opening RAB as on 01.04.2016 (A + B)		**357.01**

Capital additions submitted by AAI for Second Control Period and Pre-COD Period

4.5.13 The Authority notes differences between the approved figures in the Tariff Order for the Second Control Period and the actual capitalization of aeronautical assets. The Tariff Order for the Second Control period had projected a capitalization of aeronautical assets worth Rs. 471.00 crores by FY 2020-21, but as per AAI's submission, Rs. 353.84 crores worth of aeronautical assets have been capitalized until the COD (Commercial Operation Date).

The Authority reviewed the total capital additions provided by AAI and compared them with the capital additions approved in the Second Control Period order as detailed below:

Table 19: Reconciliation of Additions considered in the Second Control Period Order and Actuals incurred by AAI

(Rs. in crores)

Particulars	Ref.	Amount
Additions as per Second Control Period Order	A	471.00

Particulars	Ref.	Amount
Capital Expenditure proposed in Second Control Period but later deferred due to impact of COVID-19 pandemic	B	274.95
Variance in cost between additions approved and incurred (refer para 4.5.14 b))	C	7.14
Additions capitalized in the Second Control Period but not approved by AERA in the Second Control Period Order	D	150.64
Total additions proposed by AAI in its True-up of Second Control Period	**E = A - B + C + D**	**353.84**

4.5.14 The Authority has analyzed the reasons for such differences which are detailed below:

a. Capex proposed in the Second Control Period amounting to Rs. 274.95 crores were deferred due to the disruption caused by COVID-19 pandemic and also since AAI was in the process of concessioning out TRV to TKIAL.

b. The cost of assets commissioned by AAI as compared to the approved amount in Second Control Period order resulted in cost overrun of Rs. 7.14 crores due to actual tendered costs being higher than the estimates.

c. AAI capitalized assets worth Rs. 150.64 crores, which were not approved in the Second Control Period Order. These assets were commissioned mainly for enhancing passenger facilitation (such as toilet renovations), improving security (installing CCTV etc.), and maintaining the overall operational efficiency of the airport like SITC of 500 KWP grid connected solar, provision of wayfinding signage, replacement of existing old DG sets, threat containment vessel, integration of tower ATS automation with AOCC etc.

4.5.15 Based on the above analysis, the Authority notes that the justification for the difference between the capital additions as approved in the Tariff Order of the Second Control Period (Rs. 471.00 crores) and the actual additions submitted by AAI (Rs. 353.84 crores) as explained above appear to be reasonable. Thus, the Authority proposes to allow the actual capital expenditure submitted by AAI till COD for the purpose of true up.

4.5.16 Further, the Authority, as part of its review, noted the following with respect to the RAB submitted by AAI:

a) **Financing Allowance:** It was observed that the RAB submitted by AAI included Financing Allowance of Rs. 10.05 crores as additions to the Second Control Period. The Authority, considering the nature of airport as being brown field, and the detailed explanation provided below in this regard, proposes not to allow financing allowance as additions for the determination of RAB:

- Providing return on capital expenditure from the very beginning of construction will significantly lower the risks for an airport operator and may require revisiting the return on equity allowed to airport operators as the investment in the asset class will then be equated to risk free rate of return.
- Further, provision of Financing Allowance will disincentivize the Airport Operators from ensuring timely completion of projects and delivery of services to the users. Therefore, a return should be provided only when the assets are made available to the airport users except in the case of certain costs like IDC that will have to be incurred if debt is used for funding projects.
- Furthermore, the future returns from the project should generate adequate amounts to cover the cost of equity during the construction stage. The airport operator is adequately compensated for the risks associated with the equity investments in a construction project once the project is capitalized by means of a reasonable cost of equity.

- Developments at greenfield airports inherently take longer durations to commission and operationalize. Thus, airport operators would have to wait for a considerable duration before getting returns on large capital projects. Keeping this in view, financing allowance was provisioned in the initial stages to such airports. It may be further noted that financing allowance was never provided in the case of brownfield airports like MIAL, DIAL and other AAI airports. Further, financing allowance for greenfield airports of BIAL, HIAL, CIAL etc. was allowed only for the initial stages of their development after which IDC was permitted on the debt portion of the proposed capital expenditure.
- It is pertinent to note that in case of a greenfield airport, investment in regulatory blocks by the Airport Operator would not make the airport facilities available to the passengers. Brownfield and Greenfield airports cannot be equated on this issue. In greenfield airports, the tariff is not applicable, and no revenue is available to the Airport Operator till the aeronautical services have been created and put to use. However, in the case of brownfield airports, where the AO brings in additional investments, the airport facilities are mobilized and enabled to other functional parts of the airport, which remains functional, and the AO continues to collect charges from the users. In the case of TRV, the Airport ought to be considered as a brownfield airport, which would not be eligible for an allowance on equity portion of newly funded capital projects.
- Financing Allowance is a notional allowance and different from interest during construction. Therefore, the provision of Financing Allowance on the entire capital work in progress would lead to a difference between the projected capitalization and actual cost incurred, especially when the Airport Operator funds the projects through a mix of equity and debt.

b) **Financial Lease Assets (Accounting treatment Adjustment):**

- It was observed that assets worth Rs. 3.10 crores were acquired under a contract to operate the X-ray Baggage Inspection Systems (XBIS) using a Build-Operate-Transfer (BOT) model. According to this contract, AAI leased the XBIS system for a period of 6 years, with an annual lease payment of Rs. 0.65 crores. Initially, AAI treated this lease as an operating lease, recording the lease payment as part of its O&M expenses until FY 2018-19.
- However, in FY 2019-20, due to the implementation of accounting standard on leases, AAI reclassified the lease from an operating lease to a "Financial Lease." Consequently, the asset value of Rs. 3.10 crores were included as additions to the Regulated Asset Base (RAB).
- The Authority proposes that these assets would not be considered as part of the RAB additions but would be considered as an Operating expense based on the lease nature of the transaction.

c) Interest on Capital Expenditure during Construction (Rs. 0.16 crores):

- The Authority noted that interest on Capital expenditure has been included in Operation and Maintenance expenses for the Second Control Period. It was explained by AAI that the interest is associated with a loan obtained from AXIS Bank in FY 2020-21 at the headquarters level. This interest has been allocated to the station (TRV) based on the portion of the loan utilized for acquiring capital assets. According to the Study and Direction 5 of AERA, interest on Capital Expenditure represents the financing cost incurred in acquiring capital assets. Therefore, this cost should be capitalized and considered as part of RAB in order to claim a return on investment. Hence, the

Authority proposes to consider this cost as a part of capital additions commissioned and acquired through debt in FY 2020-21 and Pre-COD period.

d) Left out Assets (Rs. 1.12 crores):

- Further to the submission in the MYTP, the Authority notes that AAI has informed vide email dated 17th November 2023 that it had inadvertently left out two assets amounting to Rs. 1.12 crores capitalized in FY 2017-18, while submitting the proposal for true up of RAB as on COD. These relate to assets which were constructed by or available with Kerala State Industrial Enterprises Limited (KSIE) that were transferred/handed over to AAI. The Authority also notes that AAI has informed that these were later transferred to TKIAL along with other assets on COD. The Authority thus proposes to consider these assets as part of RAB additions for the purpose of true up.

4.5.17 Taking the above factors into account, the Authority proposes the following revised capital additions for the purpose of true up of the Second Control Period and Pre-COD Period:

Table 20: Adjustments made to Additions submitted by AAI and proposed by the Authority

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
As per AAI								
Aero Additions (A)*	128.31	16.38	49.76	73.74	68.05	**336.24**	17.60	**353.84**
Non-aero additions (B)	0.00	0.04	0.11	0.03	0.05	**0.23**	-	**0.23**
Other additions (C)	0.17	2.11	4.45	3.23	1.72	**11.68**	-	**11.68**
Total Additions (D = A + B + C)	**128.47**	**18.53**	**54.32**	**77.01**	**69.82**	**348.15**	**17.60**	**365.75**
Exclusions								
Financial Lease (Aero) (Ref. 4.5.16 b)) (E)	**-**	**-**	-	3.10	-	**3.10**	-	**3.10**
Inclusion								
IDC – Aero (F)	-	-	-	-	0.11	**0.11**	0.04	**0.16**
IDC – Non-Aero (G)	-	-	-	-	-	**-**	-	**-**
IDC – ANS (H)	-	-	-	-	0.002	**0.002**	-	**0.002**
Left out assets – Aero (Ref. 4.5.16 d)) (I)	-	1.12	-	-	-	**1.12**	-	**1.12**
Additions as per the Study								
Aero Additions (J = A – E + F + I)	128.31	17.50	49.76	70.64	68.16	**334.37**	17.64	**352.01**
Non-aero additions (K = B + G)	0.00	0.04	0.11	0.03	0.05	**0.23**	-	**0.23**
Other additions (L = C + H)	0.17	2.11	4.45	3.23	1.73	**11.69**	-	**11.69**
Total Additions (M = J + K + L)	**128.47**	**19.65**	**54.32**	**73.91**	**69.93**	**346.29**	**17.64**	**363.93**

**Excludes Financing Allowance (refer Table 15)*

Reclassification and Reallocation of assets submitted by AAI for the Second Control Period and Pre-COD Period

4.5.18 The Authority has commissioned an independent study through the Consultant appointed by AERA on allocation of assets between Aeronautical and Non-aeronautical services for TRV for the Second Control Period and FY 2021-22 (Pre and Post COD of AAI and TKIAL respectively) (summary of the study is given in Annexure 1 and the Study is attached as Appendix 1) and used the recommendation of the study, while truing up the RAB till COD, i.e., 13th October 2021 for AAI.

4.5.19 The Authority notes that the Independent Study has provided a broad framework for allocation of various classes of airport assets into Aeronautical, Non-aeronautical and Common. The process followed by the Study is as follows:

- The assets responsible for/ used exclusively for the provision of aeronautical (as defined in section 2 (a) of the AERA Act,2008) services have been classified as 'Aeronautical' for the purposes of Study. Additionally, the decisions of AERA on allocation of certain assets in the previous control periods and in the case of other airports have also been taken into consideration for this exercise.
- Assets which are solely used for the provision of services other than aeronautical services are classified as 'Non-Aeronautical'.
- If any asset is not exclusively used for the provision of either Aeronautical service or Non-Aeronautical service, it has been classified as 'Common'.
- Apart from being an airport operator, AAI is also responsible for the provision of Air Navigation Services (ANS) over the Indian airspace. Therefore, certain ANS assets also form part of the books of AAI. However, since this service is managed separately by AAI and the tariff for the same are presently regulated by Ministry of Civil Aviation (MoCA), the assets related to the same are not considered under the RAB of AAI. Therefore, such assets have been excluded from the Aeronautical Gross Block of AAI.
- However, certain ANS related assets were also transferred to TKIAL as on COD. As per the terms of the Concession Agreement, AAI would continue to provide ANS services at TRV. As mentioned in Schedule Q of Clause 20.2.1 of the Concession Agreement, TKIAL is required to make available all necessary civil infrastructure and necessary support to AAI for providing ANS services. Therefore, the ANS related assets, when transferred to the books of the TKIAL, would be considered as aeronautical in nature considering that TKIAL is not providing or charging for ANS services at TRV whereas it is required to provide the supporting infrastructure.
- Aeronautical assets (e.g. aerobridges, among others) are directly added to RAB and assets identified to be Non-Aeronautical (e.g. commercial complex) are excluded from it. The assets that have been classified as Common assets need to be further bifurcated into aeronautical and non-aeronautical based on a suitable ratio. This ratio has been determined based on the underlying proportion of their expected utilization for Aeronautical and Non-aeronautical services and activities at the Airport.

4.5.20 The Authority upon reviewing allocation of assets conducted in the Study, has made the following observations and proposals regarding AAI's submission of allocation ratios and classification of assets to be considered for the Second Control Period and Pre-COD period:

- Revision of Allocation Ratios: The bifurcation of common assets to aeronautical and non-aeronautical is based on three ratios i.e., Terminal Building Ratio (TBLR), Employee Head Count Ratio (EHCR) and Staff Quarters Ratio (QTR). A comprehensive evaluation of these ratios, as submitted by AAI, has been undertaken in the Study. After evaluating the analysis presented in the Study, the Authority agrees with the recommendations and proposes the following ratios to be considered for the allocation of common assets (for a more detailed explanation, refer to section 4.4 of the Study on Allocation of Assets):

Table 21: Allocation Ratios submitted by AAI and recomputed by the Authority

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD
Submitted by AAI						
Employee Ratio (Aero : Non-Aero)	98.41% : 1.59%	98.31% : 1.69%	98.01% : 1.99%	98.51% : 1.49%	98.44% : 1.56%	98.28% : 1.72%
Terminal Building Ratio (Aero : Non-Aero)	92.00% : 8.00%					
Staff Quarter Ratio (Aeronautical : ANS)	78.12% : 21.88%	78.12% : 21.88%	74.07% : 25.93%	73.91% : 26.09%	71.43% : 28.57%	85.00% : 15.00%
Proposed by the Authority as per the Independent Study						
Employee Ratio (Aero : Non-Aero)	94.73% : 5.27%	94.12% : 5.88%	94.02% : 5.98%	93.86% : 6.14%	93.78% : 6.22%	92.50%: 7.50%
Terminal Building Ratio (Aero : Non-Aero)	90% : 10%					
Staff Quarters Ratio (Aeronautical : ANS)	78.12% : 21.88%	78.12% : 21.88%	74.07% : 25.93%	73.91% : 26.09%	71.43% : 28.57%	85.00% : 15.00%

- Based on the examination of the submission made by AAI, the Authority concurs with the majority of the asset allocation methodology adopted in the submission by AAI, except as specifically identified in the table below. Further, assets have been analysed on a case-to-case basis and in case of any discrepancies identified in allocation, appropriate reclassification has been made for such assets.

Table 22: Reclassification of assets capitalized in the Second Control Period and Pre-COD Period proposed by the Authority

(Rs. in crores)

Asset Category	Asset Sub-Category / Description	Reason for Reclassification	Asset classification as per		Impact
			AAI	Independent Study	
Boundary-Freehold	Construction of boundary wall	-	Aero	Aero	-
Building Freehold	Extension of airside corridor & CISF barrack, construction of new fire station, provision of RCC ramp in NITB	-	Aero	Aero	-
	Civil infrastructure works at ATC complex and for examination and renovation of toilet in ANS building	The construction of civil infrastructure at the ANS building led to its reclassification as ANS and subsequent removal from RAB.	Aero	ANS	-0.21
	Provision of canopy in existing walkway, Provision of emergency Casualty centre, modification of cargo complex	Assets are pertaining to Terminal Building	Aero	Common (TBLR)	-0.16
	Civil infrastructure works at Cargo complex	The civil infrastructure works were undertaken for Cargo complex, thus treated	Aero	Not Considered*	-0.26

Asset Category	Asset Sub-Category / Description	Reason for Reclassification	Asset classification as per		Impact
			AAI	Independent Study	
		as Cargo, and removed from RAB			
	Renovation of toilet in admin building	The renovation of the toilet facilities in the administrative building, which is exclusively used by employees of AAI, resulted in the reclassification of the asset as "common." Consequently, the allocation of this asset is now based on the Employee Head Count Ratio.	Aero	Common (EHCR)	-0.02
	Construction of DVOR building replacement of DVOR	-	ANS	ANS	-
	Provision of Casualty centre, Modification of Arrival & Departure Hall	Change in % of Terminal Building ratio.	Common (TBLR)	Common (TBLR)	-0.04
	Provision of shed for parking in AAI residential Colony, children's park in AAI residential Colony	-	Common (QTR)	Common (QTR)	-
Computer Software	Software application - MS Office 2016, 2019, Auto CAD for Civil engineering	-	Aero	Aero	-
	MS office 2016	It is used by the employees of AAI, thus the MS office 2016 has been classified as common and allocated based on Employee Head Count Ratio	Aero	Common (EHCR)	-0.00
Furniture & Fixtures	Preparation table and benches for egress, Providing boarding gate counter, immigration counters & check in counters, Supply of chairs	-	Aero	Aero	-
	Table and Chair for CNS/ATM block	The table and chairs are purchased for CNS block. Thus, classified as ANS.	Aero	ANS	-0.01
	Sofa, Locker, Visitors chair, Senate conference table, Supply of Optimizer	The assets like Sofa, Locker, Visitors chair etc. were purchased for employees of AAI at TRV. Thus, classified as common and allocated based on Employee Head Count Ratio	Aero	Common (EHCR)	-0.01
	Acrylic Painting on Canvas, Statue etc	The assets like Acrylic Painting on Canvas, Statue etc are for aesthetic enhancement of the airport	Aero	Common (TBLR)	-0.04

Asset Category	Asset Sub-Category / Description	Reason for Reclassification	Asset classification as per		Impact
			AAI	Independent Study	
		premises. It is not directly related to the core aeronautical operations or safety requirements of the airport. Thus, considered as common.			
Furniture & Fixture - Trolley	Procurement Of 250 Passenger Baggage Trolley	-	Aero	Aero	-
Office Appliances	Complaint Kiosk, LED Monitors, Printers, LED Signages, Smart TV, CCTV	-	Aero	Aero	-
	Office Equipment required at CNS/ATM department	Office Equipment purchased for CNS/ATM department.	Aero	ANS	-0.06
	Desktop/Scanner/Cards etc	Desktop/Scanner/Cards etc- Used for employees of AAI sitting in Admin Building	Aero	Common (EHCR)	-0.02
	Water Dispenser/telephone Cables/ID Card Machines	Water Dispenser/telephone Cables assets are for both Aeronautical and Non-Aeronautical activities. Thus, classified as common.	Aero	Common (TBLR)	-0.01
	Termination of Toll Booth Camera	Termination of Toll Booth Camera is at the Car park area which is a non-aeronautical area	Aero	Non-Aero	-0.04
	Procurement of IT infrastructure	Procurement of IT infrastructure - It is for Cargo Operations	Aero	Not considered*	-0.01
	Precision biometric integrated attendance, matrix biometric device	Precision biometric integrated attendance, matrix biometric device- Used for employees of AAI sitting in Admin Building	Common (EHCR)	Common (EHCR)	-0.00
Plant & Equipment – Freehold	Integration of tower ATC automation with AOCC, Provision of way findings signage, Replacement of existing old DG sets & CCR, Supply of threat containment vessel, CUTE & CUSS, scanner, keyboard, Runway rubber removal machine	-	Aero	Aero	-
	Replacement of conventional lamp, SITC of RF links for remote sites CNS, SITC 10KVA MOD UPS for IPAMSS CNS, providing comprehensive VCS at AAI, SITC of	Assets used in CNS department	Aero	ANS	-0.79

Asset Category	Asset Sub-Category / Description	Reason for Reclassification	Asset classification as per		Impact
			AAI	Independent Study	
	augmentation of tower ATC automation				
	Supply of weighing scale	Supply of weighing scale was purchased for cargo operations	Aero	Not Considered*	-0.00
	Provision of ventilation for DTB & Admin, BAS device, SITC of network equipment, ALCO SENSOR IVCM with printer	BAS device etc. is used by employees of AAI.	Aero	Common (EHCR)	-0.04
	Provision of additional AC units at various locations, Replacement of cooling towers at NITB, SITC of CCTV upgradation, Provision of garden lighting at NITB, Procurement of boom lift	Replacement of conventional light & lighting fittings etc are done at Terminal building which is used for both aero and non-aeronautic activities. Thus, classified as common.	Aero	Common (TBLR)	-0.84
	Toll booth	Procurement of boom lift & toll booth	Aero	Non-Aero	-0.14
	SITC of Cargo XBIS	-	Cargo	Not Considered*	-
	SITC of HF RX antenna, Procurement of survey equipment, Procurement of WAN routers for ADP and AMSS, Procure radio communication test set	-	ANS	ANS	-
	Biometric access control systems, Replacement of old split/window AC	Change in % of Employee Head Count Ratio.	Common (EHCR)	Common (EHCR)	-0.14
	Provision of borewell, standby pumps, rewiring of residential colony	-	Common (QTR)	Common (QTR)	-
Plant & Equipment - Leasehold	XBIS Lease	-	Aero	Aero	-
Runway, Taxiway & Apron	Resurfacing & strengthening of runway, construction of additional apron, extension of parallel taxi track	-	Aero	Aero	-
Solar Panel	SITC of 500 KWP grid connected solar	-	Aero	Aero	-
Vehicle	Ambulance, BDDS & Dog Squad vehicles, Mobile command post, tractor, tow tug trolley	-	Aero	Aero	-
	Cargo trolley	-	Cargo	Not Considered*	-

Asset Category	Asset Sub-Category / Description	Reason for Reclassification	Asset classification as per		Impact
			AAI	Independent Study	
	Vehicles used for ANS activities	-	ANS	ANS	-
Total					**-2.84**

** Cargo assets are Assets related to bonded cargo activities within the airport operational area managed by the AAI until FY 2016-17*

4.5.21 As can be seen above, due to the reclassification of assets proposed by the Authority, there is an impact of Rs. 2.84 crores (reduction) in the aeronautical capital additions of AAI from FY 2016-17 till COD.

4.5.22 The break-up of the revised aeronautical capital additions given above, across Second Control Period and Pre-COD is as follows:

Table 23: Revised aeronautical capital additions from FY 2016-17 till COD proposed by the Authority

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
As per AAI submission (A)	128.31	16.38	49.76	73.74	68.05	**336.24**	17.60	**353.84**
As per the Independent Study (B)	127.71	16.95	49.41	70.26	67.37	**331.69**	17.48	**349.17**
Variance (A – B)	**0.60**	**(0.57)**	**0.35**	**3.48**	**0.68**	**4.55**	**0.12**	**4.67***

* *The variance of Rs. 4.67 crores is due to exclusion of lease asset of Rs. 3.10 crores (refer para 4.5.16 b), inclusion of IDC of Rs. 0.16 crores (refer para 4.5.16 c), inclusion of left out assets of Rs. 1.12 crores (refer para 4.5.16 d) and reclassification of Rs. 2.84 crores (Table 22)*

4.5.23 Based on the above resultant revision to capital additions, the Authority proposes the following Aeronautical Gross Block for AAI for the Second Control Period and Pre COD period:

Table 24: Gross Block proposed by the Authority for Second Control Period and Pre COD period

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD
As per AAI Submission						
Aeronautical Gross Block (A)	684.41	700.79	749.45	821.44	883.13	900.73
Non-Aeronautical Gross Block (B)	21.76	21.80	21.90	21.93	21.95	21.95
Other Assets Gross Block (C)	38.53	40.64	45.09	48.31	50.04	50.04
Total Gross Block (D = A + B + C)	**744.70**	**763.23**	**816.44**	**891.69**	**955.12**	**972.72**
Percentage Aeronautical (E = A ÷ D)	*91.90%*	*91.82%*	*91.79%*	*92.12%*	*92.46%*	*92.60%*
Proposed by the Authority as per the Independent Study						
Aeronautical Gross Block (F)	683.82	700.76	749.07	817.57	878.58	896.06
Non-Aeronautical Gross Block (G)	21.91	22.40	22.76	23.13	23.45	23.46
Other Assets Gross Block (H)	38.98	41.19	45.73	49.01	51.23	51.38
Total Gross Block (I = F + G + H)	**744.70**	**764.36**	**817.57**	**889.71**	**953.26**	**970.90**
Percentage Aeronautical (J = F ÷ I)	*91.82%*	*91.68%*	*91.62%*	*91.89%*	*92.17%*	*92.29%*
Variance (K = J - E)	*-0.08%*	*-0.14%*	*-0.17%*	*-0.23%*	*-0.30%*	*-0.31%*

4.6 True up of Depreciation

AAI's submission for true up of Aeronautical Depreciation for Second Control Period and Pre-COD period

4.6.1 AAI has submitted that depreciation has been calculated based on AERA approved rates provided in the tariff order of the Second Control Period. AAI has computed the aeronautical depreciation for the Second Control Period and Pre-COD Period as follows:

Table 25: Aeronautical depreciation submitted by AAI for True up of Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Depreciation as per AAI (refer Table 8)	29.48	33.56	37.55	39.92	43.04	**183.55**	22.74	**206.29**

Recap of decision taken by the Authority for depreciation at the time of tariff determination for the Second Control Period:

4.6.2 The Authority vide its decision no. 7 of order No. 03/2017-18 dated 2nd June 2017 decided the following with respect to depreciation for Second Control Period.

- *Decision no. 7.a.: The Authority decided to adopt depreciation rates as per Table 28 and depreciation for the 2nd control period as per Table 29.*

Table 26: Depreciation rates as submitted by AAI and as considered by the Authority in the Second Control Period (Table 28 of Second Control Period order)

S. No	Asset class	As per AAI	As per Authority till FY14	As per Authority – 2015 onwards
1	Free hold land	0%	0%	0%
2	Runways	13%	3.33%	3.33%
3	Taxiways	13%	3.33%	3.33%
4	Aprons	13%	3.33%	3.33%
5	Road, bridges & culverts	13%	1.63%	3.33%
6	Terminal & other buildings in operational area	8%	1.63%	3.33%
7	Building-Temporary	100%	100%	33.33%
8	Building-Residential	5%	1.63%	3.33%
9	Fencing-Temporary	100%	100%	33.33%
10	Other buildings -Unclassified	8%	1.63%	3.33%
11	Computers & IT H/w & accessories	20%	16.21%	16.67%
12	Plant and Machinery	11%	4.75%	6.67%
13	Tool and Plant	20%	4.75%	6.67%
14	Office Furniture & fixtures	20%	6.33%	10%
15	Other Vehicles	14%	9.50%	12.50%
16	Electric Installations & AC	11%	4.75%	10%
17	Other Office Equipment	18%	4.75%	20%
18	F&F- operational area	20%	6.33%	10%
19	XBIS (X-RAY Baggage)	11%	4.75%	6.67%
20	CFT	13%	4.75%	6.67%
21	Boundary wall -Operational	8%	1.63%	3.33%
22	Intangible assets - computer s/w	20%	20%	20%
23	Boundary wall- Residential	5%	1.63%	3.33%
24	Vehicle (Car/Jeep)	14%	9.50%	12.50%

Table 27: Depreciation considered by the Authority in the Second Control Period Order (Table 29 of Second Control Period Order)

(Rs. in crores)

S. No	Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total
1	As per AAI	60.93	58.67	52.65	45.62	70.63	**288.51**

S. No	Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total
2	As per Authority	30.41	32.66	30.94	29.86	34.86	**158.74**

- *Decision no. 7.b.: The Authority decides to consider the recommendations of the study on depreciation and finalize the depreciation rates in consultation with the stakeholders. It shall make necessary adjustments in RAB and true up depreciation while considering tariff determination in future.*

Authority's examination and proposal for Aeronautical Depreciation as part of tariff determination for the Second Control Period and Pre-COD Period:

4.6.3 The Authority notes that for the purposes of true up, AAI has calculated the depreciation for the period from 1st April 2016 to 31st March 2018 using the depreciation rates approved by AERA in the tariff order of the Second Control Period till FY 2017-18 and for the period from 1st April 2018 to COD, the depreciation has been determined by considering the useful life as prescribed under AERA Order No. 35/2017-18 dated 12th January 2018.

4.6.4 Upon review of the depreciation rates used by AAI for additions, the Authority observed that they were in line with the rates specified in AERA Order No. 35/2017-18 dated 12th January 2018, except for trolleys, office appliances and solar panels. AAI submitted that this deviation from Order 35/2017-18 was an oversight and should be corrected. Therefore, the Authority proposes to adjust the depreciation rates for these specific items according to Order 35/2017-18 and recalculate the depreciation accordingly.

4.6.5 The Authority has computed depreciation for the Second Control Period and Pre-COD period, after making necessary adjustments to the assets excluded from RAB and the same is presented as follows:

Table 28: Depreciation proposed by the Authority for Second Control Period and Pre-COD period

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Depreciation as per AAI (A) (refer Table 8)	29.48	33.56	37.55	39.92	43.04	**183.55**	22.74	**206.29**
Adjustments due to reclassification of assets (B)	-0.02	-0.03	-0.13	-0.36	-0.35	**-0.90**	-0.21	**-1.11**
Depreciation proposed by the Authority (A + B)	**29.46**	**33.52**	**37.43**	**39.56**	**42.69**	**182.65**	**22.53**	**205.19**

4.6.6 The Authority proposes to consider depreciation as per Table 28 for true up of the Second Control Period and Pre-COD period.

4.7 True up of Regulatory Asset Base (RAB)

4.7.1 After considering all the aforementioned analysis and adjustments, the Authority has determined the following RAB for each year during the Second Control Period and the Pre-COD Period:

Table 29: RAB for Second Control Period and Pre COD period proposed by the Authority

(Rs. in crores)

Particulars	Ref.	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
As per AAI Submission									
Opening RAB (F)	Table 15	357.01	454.87	437.76	450.07	485.12		507.88	
Addition (G)		130.36	16.52	50.09	76.63	71.28	**344.88**	19.01	**363.88**

Particulars	**Ref.**	**FY 17**	**FY 18**	**FY 19**	**FY 20**	**FY 21**	**SCP Total (A)**	**Pre-COD (B)**	**Total (A+B)**
Depreciation (H)*		29.49	33.63	37.64	40.09	43.39	**184.24**	23.01	**207.26**
Sales/Disposals/Transfers (I)		3.01	-	0.14	1.48	5.14	**9.77**	-	**9.77**
Closing RAB (J = F+G-H-I)		**454.87**	**437.76**	**450.07**	**485.12**	**507.88**		**503.87**	
Average RAB [(F + J) ÷ 2]		**405.94**	**446.31**	**443.91**	**467.59**	**496.50**		**505.87**	
Proposed by the Authority as per the Independent Study									
Opening RAB (A)	Table 18	357.01	452.25	435.68	447.52	476.74		496.28	
Addition (B)	Table 23	127.71	16.95	49.41	70.26	67.37	**331.69**	17.48	**349.17**
Depreciation (C)	Table 28	29.46	33.52	37.43	39.56	42.69	**182.65**	22.53	**205.19**
Sales/Disposals/Transfers (D)**		3.01	-	0.14	1.48	5.14	**9.77**	-	**9.77**
Closing RAB (E = A+B-C-D)		**452.25**	**435.68**	**447.52**	**476.74**	**496.28**		**491.23**	
Average RAB [(A + E) ÷ 2]		**404.63**	**443.96**	**441.60**	**462.13**	**486.51**		**493.75**	

**Includes depreciation of Rs. 0.96 crores on Financing Allowance*

***Mainly relates to Runway Rubber Removal Machine, XBIS, CFT/Firefighting equipment etc.*

Deemed Initial RAB

4.7.2 As per Concession Agreement, TKIAL shall be liable to pay to AAI an amount equivalent to investments made by AAI in aeronautical assets as of COD and as considered by the Authority as part of Regulatory Asset Base (RAB) subject to reconciliation, true up and final determination by the Authority. The relevant clauses of the concession agreement in this regard are mentioned below:

Clause 28.11.3

(a) It is agreed by the parties that the concessionaire shall be liable to pay to the Authority an amount equivalent to the investments made by the Authority in the Aeronautical Assets as of the COD and considered by the Regulator as part of the Regulatory Asset Base, subject to requisite reconciliation, true-up and final determination by the Regulator of the quantum of such investment ***("Deemed Initial RAB")****.*

(b) The estimated depreciated value of investments made by the Authority in the Aeronautical Assets at the Airport as on 31st March 2018 is Rs. 424,00,00,000 (Rupees Four Hundred and Twenty Four crore) ***("Estimated Deemed Initial RAB")****. It is agreed by the Parties that the Estimated Deemed Initial RAB shall be due and payable by the Concessionaire to the Authority within 90 (ninety) days of COD.*

Clause 28.11.4

"Pursuant to the payment of the Estimated Deemed Initial RAB, and upon the reconciliation, true-up and final determination by the Regulator of the quantum of the investment under 28.11.3(a), any surplus or deficit in the Estimated Deemed Initial RAB with respect to the Deemed Initial RAB shall be adjusted as part of the Balancing Payment that becomes due and payable as per Clause 31.4 after the expiry of 15 (fifteen) days from such final determination by the Regulator, with due adjustment for the following ("Adjusted Deemed Initial RAB"):

(a) reduced to the extent of over-recoveries, if any, of Aeronautical Revenues by the Authority until the COD, that the Regulator would provide for as a downward adjustment while determining Aeronautical Charges for the next Control Period; or

(b) increased to the extent of under-recoveries, if any, of Aeronautical Revenues by the Authority until the COD, that the Regulator would provide for as an upward adjustment while determining Aeronautical Charges for the next Control Period.

The amount(s) to be paid by the Authority or Concessionaire shall be the present value of Adjusted Deemed Initial RAB calculated using the fair rate of return as determined by the Regulator for the time period from the COD to the date of actual payment of the Adjusted Deemed Initial RAB.

Clause 28.11.5

Upon reimbursement of such amount by the Concessionaire to the Authority, the Deemed Initial RAB will, in addition to the investments made by the Concessionaire, be considered for the purpose of determination of Aeronautical Charges by the Regulator.

(a) The Authority undertakes to make any required supporting submissions to the Regulator towards such consideration and determination by the Regulator.

(b) The parties shall submit to and request the Regulator to separately identify the Deemed Initial RAB in future determinations of Aeronautical Charges with regard to consideration of depreciation, required returns etc.

4.7.3 The Authority notes that in November 2022, members from both the AAI and TKIAL teams collaborated to conduct a physical verification of the assets. Following this verification, they jointly signed the fixed asset register to confirm the assets' status as of COD. TKIAL has accepted that the value of aeronautical assets transferred by AAI as on COD was Rs. 486.21 crores and that the value of ANS related assets transferred was Rs. 0.05 crores as detailed in Joint Asset Reconciliation Statement (JARS).

4.7.4 Taking cognizance of the above clauses in the Concession Agreement and adjustments & reclassification proposed by the Authority based on the outcome of the independent study conducted by the Independent Consultant appointed by AERA on allocation of assets for TRV, Thiruvananthapuram, including disallowance of Financing Allowance, exclusion of Financial lease assets, inclusion of IDC and the left out assets, reclassification of assets and the resulting change in depreciation, the Authority has determined the Deemed Initial RAB as on COD, as follows:

Table 30: Deemed Initial RAB for TKIAL as on COD considered by the Authority

(Rs. in crores)

Particulars	Ref.	Aeronautical Assets	Non-Aeronautical Assets	Other Assets	Total
		(A)	(B)	(C)	D = (A + B +C)
Closing RAB as on 13th October 2021, as submitted by AAI (A)	Table 15	503.87	1.59	9.97	**515.43**
Financing Allowance net of depreciation (B)	Para 4.5.16a)	-9.08	-	-	**-9.08**
Financial Lease Assets (C)	Para 4.5.16b)	-3.10	-	-	**-3.10**
IDC (D)	Para 4.5.16c)	0.16	-	0.00	**0.16**

Particulars	Ref.	Aeronautical Assets	Non-Aeronautical Assets	Other Assets	Total
		(A)	(B)	(C)	D = (A + B +C)
Left out assets (E)	Para 4.5.16d)	1.12	-	-	**1.12**
Reclassification of assets (F)	Table 22	-2.84	1.50	1.34	**-**
Change in depreciation (G)	Table 28	1.11	(0.31)	(0.25)	**0.54**
Net block of assets as on 13th October 2021 after reclassification and other adjustments as per the Study [H = sum (A to G)]		**491.23**	**2.79**	**11.05**	**505.07**
Less: Assets retained by AAI (I)		8.00	0.07	10.51	**18.59**
Net block of assets transferred by AAI to TKIAL as on 13th October 2021 (J = H - I)		**483.23**	**2.71**	**0.54**	**486.48**
Other Assets* (ANS & Cargo) considered as aeronautical (K)	Table 22	0.54	-	-0.54	**-**
Opening RAB of TKIAL as on 14th October 2021 (L = J + K)		**483.77**	**2.71**	**-**	**486.48**

** Other Assets include assets related to Cargo and ANS/CNS operations which has been transferred to TKIAL. This asset has been considered as part of RAB in TKIAL submission. Cargo assets are Assets related to bonded cargo activities within the airport operational area which was managed by the AAI until FY 2016-17 but after transfer, the cargo activities are undertaken by TKIAL itself. Therefore, the study considers it as part of Initial RAB of TKIAL.*

4.7.5 Therefore, the Deemed Initial RAB which would be the opening RAB for TKIAL as on COD is determined by the Authority to be Rs. 483.77 crores.

4.8 True up of Fair Rate of Return (FRoR)

AAI's submissions on the Fair Rate of Return (FRoR) for Second Control Period and Pre-COD period

4.8.1 AAI has considered Fair Rate of Return (FRoR) as 14% in MYTP for true up of Second Control Period and Pre COD period based on the decision taken in Order no. 03/2017-2018 dated 2nd June 2017 of TRV for tariff determination of Second Control Period.

Recap of decision taken by the Authority for FRoR at the time of tariff determination for the Second Control Period

4.8.2 The Authority vide Decision no. 9 of the Order no. 03/2017-2018 dated 2nd June 2017 decided the following with respect to Fair Rate of Return for the Second Control Period

- *Decision no 9.a. The Authority decides to consider the FRoR at 14% for TRV for the 1st and 2nd Control Period.*
- *Decision no 9.b. The Authority decides to undertake a study to determine FRoR for major AAI airports given the low debt structure of AAI as a whole.*

Authority's examination and proposal for true up of Fair Rate of Return for Second Control Period and Pre-COD period

4.8.3 The Authority noted that interest on Capital expenditure has been included in Operation and Maintenance expenses in FY 2020-21 and Pre COD period (1st April 2021 to 13th October 2021). Upon seeking clarification from AAI about the nature of interest, AAI submitted that the interest is associated with Term Loan of Rs.

2,100 crores which was raised from M/s. Axis Bank Ltd to meet part of its Capital Expenditure for FY 2020-21 at an interest rate of 6.21% for AAI Airports. The term loan was disbursed to TRV from FY 2020-21 as per the Capital expenditure requirement. However, AAI has not considered the cost of debt factor into FRoR computation.

4.8.4 The Authority had earlier considered the Fair Rate of Return at 14% for most of the major AAI airports. Accordingly, the Authority decided to consider the Fair Rate of Return at 14% in the Second Control Period order considering that for TRV internal accruals were sufficient to meet capital expenditure requirement and accordingly no loan was required and FRoR was arrived at 14%.

4.8.5 In the Tariff Order for the Second Control Period, the Authority had decided to commission a study with regard to determination of FRoR and true up the same. The Authority notes that the capital structure of AAI is not cost efficient and is highly equity leveraged. AAI has taken steps to make its capital structure efficient by availing debt in FY 2020-21 for executing capital expansion plans at certain Airports (which also includes TRV). However, TRV has been concessioned out to TKIAL. Hence, at this juncture, the Authority does not intend to conduct an independent study for assessing the normative capital structure.

4.8.6 The Authority notes that as per AAI's replies to queries dated 19th June 2023, loan amounting to Rs. 11.23 crores and Rs. 1.94 crores were disbursed for incurring the capital expenditure in FY 2020-21 and FY 2021-22.

4.8.7 Therefore, the Authority proposes to consider the cost of equity at 14%, for true up of the first four tariff years of the Second Control Period and thereafter to rework the FRoR considering loan disbursed for fifth tariff year of the Second Control Period and the Pre COD period. The revised FRoR for the Second Control Period and Pre COD period are as given below.

Table 31: FRoR proposed by the Authority for true up of the Second Control Period and Pre COD period

Particulars	Ref	FY17	FY18	FY19	FY20	FY21	Pre-COD
Cost of Equity (%)	G	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Cost of Debt (%)	H	-	-	-	-	6.21%	6.21%
Equity %	C	100.00%	100.00%	100.00%	100.00%	98.29%	99.70%
Debt %	D	-	-	-	-	1.71%	0.30%
FRoR (%)	E = (A * C) + (B * D)	14.00%	14.00%	14.00%	14.00%	13.87%	13.97%
Weighted Average FRoR	F	13.97%					

4.8.8 Further, it is to be noted that AAI operated the Airport in FY 2021-22 till 13th October 2021. Therefore, AAI is eligible to claim return on RAB only till the COD. Hence, for FY 2021-22, the Authority proposes to pro-rate the FRoR for 196 days during which AAI operated the Airport. The pro-rated FRoR for FY 2021-22 (till COD) has been computed as follows:

$$\text{FRoR COD} = \text{FRoR} * n / 365$$

where FRoR is the fair rate of return for the entire FY 2021-22, FRoR COD is the pro-rated FRoR for the period till COD and n is the number of days in operation by AAI in FY 2021-22.

4.8.9 Based on the above approach the pro-rated FRoR for Pre COD period has been computed as follows:

Table 32: Pro-rated FRoR proposed by the Authority for true up of Pre-COD period

Particulars	Value (%)
FRoR for FY 2021-22 (A)	13.97%
Number of days of operations in FY 2021-22 (B)	196
Pro-rated FRoR for FY 2021-22 (till COD) (A*B/365)	7.50%

4.8.10 Based on the above analysis, the Authority proposes to consider FRoR as 13.97% for true up of the Second Control Period and 7.50% for FY 2021-22 (up to COD) for true up of the Pre-COD period.

4.9 True up of Operation and Maintenance (O&M) expenses

AAI's submission for true up of Operation and Maintenance expenses for Second Control Period and Pre-COD period

4.9.1 The component wise break up of Aeronautical Operation and Maintenance expenses submitted by AAI for the Second Control Period and Pre-COD Period is as follows:

Table 33: O&M expenses submitted by AAI for true-up of Second Control Period & Pre-COD Period

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Employee Benefit Expenses	48.71	60.58	74.97	78.42	58.01	**320.70**	33.30	**354.00**
A&G Expenses	2.61	1.90	2.56	3.92	5.59	**16.58**	0.04	**16.62**
CHQ & RHQ Expenses	32.58	43.44	42.45	52.47	31.11	**202.05**	17.54	**219.59**
R&M Expense	11.95	11.46	12.54	12.46	15.65	**64.05**	9.61	**73.66**
Utility & Outsourcing Expenses	13.64	16.57	16.52	18.68	16.83	**82.25**	9.63	**91.88**
Other Outflows	1.53	2.64	3.01	3.06	0.45	**10.68**	0.66	**11.33**
Total O&M Expenditure	**111.01**	**136.60**	**152.05**	**169.01**	**127.64**	**696.30**	**70.78**	**767.08**

4.9.2 The above submission of aeronautical operational expenses by AAI is based on the classification as given below:

Table 34: O&M expenses classification adopted by AAI for Second Control Period and Pre-COD Period

Expense Category	Expense Sub-Category / Description	Expense Classification	Allocation Basis
Employee Benefit Expenses	Salary, wages & bonus	Common	EHCR
A&G Expenses	Advertisement; Arbitration Expenses; Legal Charges;	Common	Actuals
	Other fees like Aerodrome license; Travelling and Conveyance; Freight Charges/Shifting Expenses; Insurance Cost; Rent, Rates & Taxes; Municipal Taxes; Consultancy/Advisory Expenses; Interest & Solatium; Interest Capex Term Loan Axis; Interest on Finance Lease XBIS; Prior Period (PP) Exp-Admin & other expense	Aeronautical	100%
	Books, Journals & Periodicals; Telephone Charges; Office Expenses; Other Sundry Expenses	Common	EHCR
R&M Expenses	Civil Works; Electrical Works	Common	TBLR
	Furniture & Fittings; Electronics	Common	EHCR
	R&M Build Operate Transfer (BOT) XBIS Lease; Airport Operations Control Centre (AOCC) Expenses; Inline Baggage Manpower; Vehicle	Aeronautical	100%

Expense Category	Expense Sub-Category / Description	Expense Classification	Allocation Basis
CHQ/RHQ Expenses	CHQ/RHQ expenses allocated to TRV	Common	95%
Utility & Outsourcing Expenses	Power Charges	Common	Electricity Ratio
	Water Charges	Aeronautical	100%
	Consumption of other consumables	Common	TBLR
	Consumption of paper glass; Consumption of Petrol, Oil, Lubricant (Car & Jeeps); Hire charges for cars/jeeps; Other hire charges	Aeronautical	100%
	Watch & Ward Exp./Other Security Contracts; Conservancy Charges/Cleaning Contracts Environmental Support Services (ESS); Upkeep Mechanized Environmental Support Services (MESS)	Common	TBLR
Other Outflows	Collection charges on UDF; Collection charges paid to IATA (Aero charges); Collection charges on Passenger Service Fee (PSF)	Aeronautical	100%

4.9.3 The following allocation ratios have been used by AAI for allocation of above Common expenses to Aeronautical and Non-aeronautical expenses:

Table 35: Allocation ratios adopted by AAI for Second Control Period and Pre-COD Period

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD
EHCR (Aero : Non-Aero : ANS)	74.50% : 1.20% : 24.30%	72.31% : 1.24% : 26.45%	71.37% : 1.45% : 27.18%	70.22% : 1.06% : 28.72%	70.07% : 1.11% : 28.82%	68.02% : 1.19% : 30.79%
EHCR (Aero : Non-Aero)	98.41% : 1.59%	98.31% : 1.69%	98.01% : 1.99%	98.51% : 1.49%	98.44% : 1.56%	98.28% : 1.72%
Terminal Building Ratio (Aero : Non-Aero)	92.34% : 7.66%	92.12% : 7.88%	92.21% : 7.79%	92.19% : 7.81%	93.29% : 6.71%	91.59% : 8.41%
Electricity Ratio (Aero : Non-Aero : ANS)	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%

Recap of decision taken by the Authority for Operation and Maintenance expenses at the time of tariff determination for the Second Control Period

4.9.4 The Authority vide Decision no. 11 of Order no. 03/2017-2018 dated 2nd June 2017 for the Second Control Period had decided the total O&M expenses to be Rs. 633.47 crores based on its analysis of the submissions made by AAI.

- *Decision no 11.a.: The Authority decides to consider the operational and maintenance expenditure as given in Table 41, for the purpose of determination of aeronautical tariffs for the 2nd Control Period.*
- *Decision no 11.c.: The Authority decides to true up the O&M expenditure for 2016-17 to 2020-21 of the 2nd Control Period based on the actuals at the time of determination of tariff for the 3rd Control Period.*

Table 36: O&M expenses considered by the Authority in the Second Control Period Order (Table 41 of the Order)

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	Total
Employee Benefit Expenses	54.62	68.28	73.00	78.04	83.44	**357.38**
A&G Expenses	2.67	2.94	3.22	3.54	3.89	**16.26**
CHQ & RHQ Expenses	22.70	23.84	25.03	26.28	27.59	**125.44**

Particulars	FY17	FY18	FY19	FY20	FY21	Total
R&M Expense	9.87	10.85	11.94	13.13	14.44	**60.23**
Utility & Outsourcing Expenses	13.29	13.61	13.96	14.36	14.79	**70.01**
Other Outflows	0.75	0.79	0.83	0.87	0.91	**4.15**
Total	**103.90**	**120.31**	**127.98**	**136.22**	**145.06**	**633.47**

4.9.5 The following allocation ratios were adopted by the Authority for allocating the expenses in the Second Control Period order:

Table 37: Allocation Ratio adopted by the Authority in the Second Control Period Order

Particulars	%
Terminal Building Ratio (TBLR)	90%:10%
Employee Head Count Ratio (EHCR)	95%:5%

4.9.6 The major considerations, in terms of O&M expenses and allocation ratios, adopted by the Authority in the Second Control Period order are as follows:

Para 7.6: The Authority observed that the percentage of non- aeronautical area is lower as compared to similar airports. The Authority had proposed to adopt 90% as aeronautical area for asset allocation of terminal related assets to encourage growth of Non-Aeronautical Revenue (NAR) which would cross-subsidize aeronautical charges.

Para 7.16: The Authority notes that allocation ratio of 97.9% as mentioned by International Air Transport Association (IATA) refers to the average allocation of total assets and not just terminal assets. As per AAI's submissions, terminal related assets have been allocated based on 93.47%:6.53%, 93.11%:6.89% and 92.70%:7.30% respectively for FY 2015-16, FY 2016-17 and FY 2017-18. The Authority had proposed to consider terminal related assets in the ratio of 90%:10% for aeronautical and non-aeronautical allocation.

Authority's examination and proposal for Operation and Maintenance expenses as part of tariff determination for the Second Control Period and Pre-COD Period:

4.9.7 The Authority has commissioned an independent study through the Consultant appointed by AERA on efficient Operation and Maintenance expenses for TRV for the Second Control Period and FY 2021-22 (Pre and Post COD of AAI and TKIAL respectively) (summary of the study is given in Annexure 2 and the Study is attached as Appendix 2). The Study has included analyzing O&M expenses submitted by AAI, conducting internal and external benchmarking, identifying cost drivers for allocation, and making necessary adjustments for accurate expense alignment.

4.9.8 Based on outcomes of the Study on Opex for the Second Control Period and Pre-COD period, the Authority has made the following observations regarding AAI's submission of O&M expenses under various heads for the Second Control Period and Pre-COD period in the following sequence:

a) Allocation Ratios
b) Assessment and Rationalization of O&M expenses
c) Reclassification and Reallocation of Expenses

a) Allocation Ratios

Revision of the Terminal Building Ratio:

4.9.9 The Authority in the Second Control Period Order decided to adopt the Terminal Building Ratio as 90%:10% (Aeronautical : Non-Aeronautical) (refer para 4.9.6 for extract of relevant paragraphs in the Second Control

Period Order) to encourage the growth of non-aeronautical revenues which would cross-subsidize aeronautical charges. Further it can be observed that in its computations, AAI has considered only the specific areas allocated to commercial activities as non-aeronautical. The common areas have not been identified and further bifurcated between aeronautical and non-aeronautical. Therefore, in light of the above, the Terminal Building Ratio has been considered as 90:10 (Aeronautical : Non-Aeronautical) in line with the Authority's decision in Order No. 03 /2017-18 dated 2nd June 2017.

Revision of the Gross Block Ratio:

4.9.10 The Authority notes that AAI has used Terminal Building Ratio for allocation of certain expenses that are incurred for the entire airport. However, the Authority observes that the Study recommends applying Gross Block ratio (ratio of aeronautical gross block to total gross block) to such expenses which are common to airport (detailed reasons for using Gross Block Ratio has been mentioned in paras 4.7.3 to 4.7.6 of the Study on Allocation of Assets). Hence, in line with the Study's proposal, the Authority proposes to consider Gross Block Ratio as shown in Table 7 of the Study on Opex, presented as follows:

Table 38: Gross Block Ratio as per the Authority

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD
Aero Gross Block %	91.82%	91.68%	91.62%	91.89%	92.17%	92.29%
Non-Aero Gross Block %	2.95%	2.93%	2.79%	2.60%	2.46%	2.42%
ANS Gross Block %	5.23%	5.39%	5.59%	5.51%	5.37%	5.29%

Revision of the Employee Head Count Ratio (EHCR):

4.9.11 The Authority analyzed the method used by AAI to calculate the Employee Head Count Ratio (EHCR). The Authority observes that categorization of certain departments like Law, Housekeeping, Land Management, and Medical were taken as aeronautical. The Authority is of the view that these departments offer services not only to aeronautical areas but also to other departments and non-aeronautical areas. Thus, the Authority proposes to reclassify these departments based on the nature of the services they offer.

Further, the Authority notes that even though the costs directly pertaining to ANS employees have been excluded from the O&M expenses, the common expenses are included. Therefore, the Authority had considered the common expenses allocated to ANS employees as deemed non-aeronautical and had recomputed the Employee ratio as shown in Table 10 of the Study on Opex presented below:

Table 39: Employee Head Count Ratio as per the Authority

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD
Aero: Non-Aero: ANS	71.71%: 3.99%: 24.30%	69.23%: 4.32%: 26.45%	68.47%: 4.35%: 27.18%	66.90%: 4.38%: 28.72%	66.75%: 4.43%: 28.82%	64.02%: 5.19%: 30.79%
Aero: Non-Aero	94.73%: 5.27%	94.12%: 5.88%	94.02%: 5.98%	93.86%: 6.14%	93.78%: 6.22%	92.50%:7.50%

Revision of the Electricity Ratio:

4.9.12 The Authority has received the rationale behind the electricity ratio used by AAI to divide electricity expenses between ANS and the airport. AAI explained that the ratio is based on the average consumption of units by ANS equipment. Since there are no separate meters, estimates of consumption are used to determine the consumption by ANS. AAI recovers utility costs from non-aero concessionaires based on the load factor of non-aero areas. The percentage of recoveries from non-aeronautical concessionaire ranges from 4.63% to

11.87% as presented and computed in Table 12 of the Study on Opex. The Authority concurs with the methodology used by AAI to compute the consumption, hence considers the electricity ratio submitted by AAI to be appropriate.

4.9.13 Based on the above analysis of ratios, the Authority proposes to consider the following revised ratios for the allocation of expenses of TRV for the Second Control Period and Pre-COD Period:

Table 40: Allocation Ratios submitted by AAI and recomputed by the Authority

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD
Submitted by AAI						
Employee Ratio (Aero : Non-Aero : ANS)	74.50%: 1.20% : 24.30%	72.31% : 1.24% : 26.45%	71.37% : 1.45% : 27.18%	70.22% : 1.06% : 28.72%	70.07% : 1.11% : 28.82%	68.02% : 1.19% : 30.79%
Employee Ratio (Aero : Non-Aero)	98.41% : 1.59%	98.31% : 1.69%	98.01% : 1.99%	98.51% : 1.49%	98.44% : 1.56%	98.28% : 1.72%
Terminal Building Ratio (Aero : Non-Aero)	92.34% : 7.66%	92.12% : 7.88%	92.21% : 7.79%	92.19% : 7.81%	93.29% : 6.71%	91.59%: 8.41%
Electricity Ratio (Aero : Non-Aero : ANS)	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%
Recomputed as per the Study						
Employee Ratio (Aero : Non-Aero : ANS)	71.71% : 3.99% : 24.30%	69.23% : 4.32% : 26.45%	68.47% : 4.35% : 27.18%	66.90% : 4.38% : 28.72%	66.75% : 4.43% : 28.82%	64.02% : 5.19% : 30.79%
Employee Ratio (Aero : Non-Aero)	94.73% : 5.27%	94.12% : 5.88%	94.02% : 5.98%	93.86% : 6.14%	93.78% : 6.22%	92.50%: 7.50%
Terminal Building Ratio (Aero : Non-Aero)	90% : 10%	90% : 10%	90% : 10%	90% : 10%	90% : 10%	90% : 10%
Electricity Ratio (Aero : Non-Aero : ANS)	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%
Gross Block Ratio (Aero : Non-Aero : ANS)	91.82% : 2.95% : 5.23%	91.68% : 2.93% : 5.39%	91.62% : 2.79% : 5.59%	91.89% : 2.60% : 5.51%	92.17% : 2.46% : 5.37%	92.29% : 2.42% : 5.29%

b) <u>Assessment and Rationalization of O&M expenses</u>

4.9.14 The Authority has taken note of the expenses related to the Second Control Period and Pre-COD Period submitted by AAI. While conducting a comparison analysis with the approved expenses as per Second Control Period order, the Study recognized that the Pre-COD period falls outside the 5-year control period. To accurately assess and compare the expenses during the Pre-COD period, the Study computed estimated figures by extrapolating the approved expenses from FY 2020-21 (as per the Second Control Period order) to the Pre-COD period of 196 days. This extrapolation was done using the growth rate used to project expenses for FY 2020-21 as specified in the order.

Upon review and analysis of the O&M expenses submitted by AAI for both the Second Control Period and the Pre-COD Period, the Authority observed the following:

- **Employee benefit expenses**: The Authority observes that the actual expenses during Second Control Period were mostly lower than the approved expenses mentioned in the Second Control Period Order, except for slight increases in FY 2018-19 and FY 2019-20 due to retirement benefits and flood-related overtime expenses. The reduction in expenses during FY 2020-21 was attributed to the impact of COVID-19 pandemic on staff numbers and retirement expenses.

Despite the overall reduction in expenses, employee expenses per passenger and per employee showed an upward trend in average salaries and efficient resource utilization. However, the Authority notes that the actual expenses remained within the approved limits set in the Second Control Period Order, indicating steady spending by AAI.

Even during the Pre-COD period, it was observed that the employee expenses incurred were lower than the estimated figures computed in the Study. This further supports the fact that expenses have been reasonably incurred.

Taking into account these findings, the Authority considers that the employee benefit expenses submitted by AAI for the Second Control Period and Pre-COD period are reasonable.

- **Administrative and General (A&G) Expenses**: The Authority has reviewed the A&G expenses incurred by AAI for the Second Control Period, which amounted to Rs. 16.58 crores, slightly exceeding the approved amount of Rs. 16.26 crores specified in the Second Control Period order. Several factors contributing to this increase have been identified which include changes in travel policies resulting in higher traveling expenses, delayed municipal tax demands, erroneous classification of telephone expenses, interest and solatium expenses related to land acquisition, inclusion of interest and penalty expenses, adjustments in lease accounting, and prior period expenses.

  The Authority has examined each factor and proposes necessary adjustments to the A&G expenses submitted by AAI for the Second Control Period. After applying appropriate adjustments, the revised A&G expenses stand at Rs. 12.58 crores, as shown in Table 22 of the Study on Opex, which appears reasonable. External benchmarking has indicated that AAI's expenses align well with other airports.

  For the Pre-COD period, AAI has submitted A&G expenses of Rs. 0.04 crores, encompassing the same line of expenses covered in the Second Control Period. Therefore, the Authority proposes to apply the same adjustments as proposed for the A&G expenses of the Second Control Period. As a result, after making the necessary adjustments, the revised A&G expenses for the Pre-COD period amount to Rs. 0.12 crores, as explained in detail in Table 50 of the Study on Opex.

  Impact: The overall impact of these adjustments leads to a reduction of A&G expenses by Rs. 3.92 crores for both the Second Control Period and Pre-COD periods.

- **CHQ & RHQ Expenses:** The Authority notes that the CHQ & RHQ expense incurred by AAI for the Second Control Period of Rs. 202.05 crores is significantly higher than the approved amount of Rs. 125.44 crores as per the Second Control Period order. This has resulted in a variance of approximately 61%.

  It was also observed that AAI reported higher CHQ & RHQ expenses for the Pre-COD period compared to the estimated amount (refer Table 52 of the Study on Opex). The expense for the Pre-COD period was calculated by applying a 5% growth rate to the actual expenses of FY 2020-21, as submitted by AAI, since the workings for CHQ & RHQ expenses for FY 2021-22 were not finalized.

  The Authority observes that the Study has carried out comprehensive analysis to examine and justify these expenses. As a result, the CHQ & RHQ expenses were rationalized and reallocated which is detailed below (for detailed analysis refer para 3.4.13 of the Study on Opex):

Rationalization and reallocation of CHQ & RHQ Expense

The basis for allocation of AAI's CHQ & RHQ Expenses to TRV and other airports was reviewed, and the following were noted:

- All expenses incurred by CHQ & RHQ (such as staff costs, Administrative and other expenses, Repairs & Maintenance, utilities, outsourcing expenses, etc.) are allocated to all AAI airports.
- All the above-mentioned expenses including Employee benefit expenses are allocated in the ratio of revenues earned by each airport.
- Expenses such as legal costs, interest and penalties are related to specific airports. However, these have also been allocated to the common pool and apportioned to all AAI airports.

Based on analysis of the major components of CHQ & RHQ Expenses for the period from FY 2016-17 to FY 2020-21 submitted by AAI, the following expense allocation has been proposed:

a) Pay and Allowances

- AAI has considered pay and allowances of Commercial department at CHQ & RHQ as Aeronautical expenses, whereas it is proposed to consider such expenses as Non-Aeronautical.
- AAI has excluded pay and allowances of employees involved in ATM, Communications, Navigation and Surveillance (CNS) and Cargo departments at CHQ & RHQ while determining the allocation to the airport. However, costs of support services departments including HR, Finance, Civil, and Terminal Management (Housekeeping) were not excluded in the determination of such allocation.
- CHQ & RHQ staff also provide services to Non-Aeronautical activities, Air Traffic Control (ATC) and CNS cadres at respective airports for which appropriate adjustment was not carried out.

In order to give effect to the above re-allocation, it is proposed that 20% of CHQ & RHQ pay and allowances be excluded towards adjustment for:

- ➢ Support services to ANS, Cargo and Commercial at CHQ, RHQ and Airports; and
- ➢ Officials of Directorate and Commercial

It is proposed that the balance 80% of CHQ & RHQ pay and allowances be allocated to airports.

b) Administrative and other expenses

- AAI has incurred legal and arbitration costs at CHQ & RHQ, which have been allocated across all AAI airports instead of allocation to specific airports on a case-to-case basis.
- Further, AAI has paid interest and penalties to Government of India at CHQ & RHQ due to various lapses and delays and allocated the same across all AAI airports instead of allocation to specific airports on a case-to-case basis.
- As per Section 13 of the AERA Act, 2008 and International Civil Aviation Organization's (ICAO) principle of 'Cost-relatedness', it is determined that CHQ/ RHQ expenses being allocated to TRV on the basis of revenue results in large Y-o-Y variation in such expenses.

Accordingly, the revised allocation of CHQ & RHQ expenses to TRV is Rs. 133.72 crores as compared to Rs. 202.05 crores allocated by AAI for the Second Control Period and Rs. 15.09 crores for the Pre-COD period. The same has been proposed by carrying-out the following rationalization:

i. By excluding 20% of CHQ and RHQ pay and allowances towards adjustment for support services to ANS, Cargo, Commercial at CHQ & RHQ and Officials of Directorate and Commercial

ii. By excluding the allocated costs of legal and arbitration expenses and interest and penalties paid to Government of India by AAI at CHQ & RHQ

The Authority is of the view that the users should pay only for the services availed by them. Further, in line with Section 13 of the AERA Act, 2008 the Authority has a scope of determining tariff in respect of Aeronautical services provided/ capital expenditure incurred only by that particular airport. This view is also consistent with ICAO's principle of 'Cost-relatedness'. Based on the above principles, the Authority has rationalized the CHQ/ RHQ expenses being allocated to TRV, Thiruvananthapuram. The Authority feels that the allocation of CHQ & RHQ expenses by AAI on the basis of revenue is non-transparent and an inefficient method, as it brings large variation in such expenses Y-o-Y, due to change in revenue and is against the basic principle of cost relatedness in tariff determination. Further, as the revenue from these airports goes up due to higher tariffs, it further leads to higher allocation of CHQ/RHQ expenses with chain of cascading effect. The Authority, therefore, expects AAI to examine these issues in detail and devise an effective and efficient method for allocation of CHQ & RHQ expenses as a priority.

Further, the Authority feels that AAI should exploit the potential of its non-traffic avenues fully so that 30% of the same, by cross subsidization, can be used to cover Aeronautical expenses.

Impact: The overall impact of these adjustments leads to a reduction of CHQ & RHQ expenses by Rs. 70.78 crores for both the Second Control Period and Pre-COD periods.

- **Repairs and Maintenance (R&M) Expenses:** The Authority upon examination observed that AAI's R&M expenses incurred during the Second Control period amounted to Rs. 64.05 crores, surpassing the approved budget of Rs. 60.23 crores outlined in the Second Control Period order. Majority of the expenses showed a steady growth rate, except for a significant spike of 26% in FY 2020-21. During the analysis, specific areas with significant expenses were identified, including additional R&M expenses for Inline Baggage Manpower and a 107% increase in electronic expenses in FY 2018-19 compared to the previous year.

  AAI justified these cost increases by attributing them to new contracts, security-related expenditures, and spare equipment purchases. Regarding the Inline Baggage Manpower expense, AAI clarified that it should have been categorized under Hiring Charges as part of the Utility & Outsourcing expense head, rather than R&M expenses.

  Considering the above, the Authority re-categorized the Inline Baggage Manpower expense to Utilities & Outsourcing expenses and R&M-BOT XBIS lease to A&G expense (refer para 3.4.15.4 and 3.4.7.1 (8) (1) of the Study on Opex respectively). After necessary adjustments, the revised R&M expenses for the Second Control Period and Pre-COD were found to be Rs. 59.89 crores and Rs. 9.58 crores, respectively, which were deemed reasonable.

  The Authority also analyzed the R&M expenses in relation to the Regulatory Asset Base (RAB) and observed that the R&M expenses are reasonable and within the range of 6% of the Opening RAB throughout the Second Control Period and Pre-COD period (refer Table 30 and Table 55 of Study on Opex). This aligns with the methodology used for similar airports and further supports the reasonableness of AAI's R&M expenses.

  In conclusion, the Authority's comprehensive analysis suggests that AAI's R&M expenses were justified and reasonable, considering the explanations provided and the alignment with industry norms and practices.

- **Utility and Outsourcing Expenses:** The Authority notes that AAI exceeded the approved amount mentioned in the Second Control Period order (Rs. 70.01 crores) and incurred a total cost of Rs. 82.25 crores. The Authority observes that in FY 2017-18, there were significant increases in expenses for upkeep and watch & ward compared to the previous year. AAI justified the increase in upkeep expenses due to additional requirements like implementing mechanized cleaning services. The watch & ward expenses escalated due to the engagement of the Kerala traffic police for traffic control and increased costs of the bird chaser contract. In FY 2020-21, the actual costs exceeded the projected figures in the Second Control Period order despite COVID-19 pandemic restrictions. The increase was attributed to expenses related to hiring charges and other contracts for airport maintenance and cleanliness.

  After adjustments for recategorization of inline baggage manpower cost from R&M expense to Utility and Outsourcing Expense head, the revised expense for Second Control Period amounted to Rs. 84.74 crores.

  For pre-COD Period, it can be observed that AAI has exceeded the estimated amount computed in the Study. Upon analysis, it was noticed that in Pre-COD Period, the major expense was towards hiring manpower for screening of Inline Baggage (ILBS) for Rs. 1.01 crores and trolley retrieval of Rs. 0.23 crores.

  Overall, the analysis concludes that the expenses incurred were necessary for the proper functioning and maintenance of the airport, and thus the Utility and Outsourcing Expenses appear to be reasonable. External benchmarking analysis also suggests that AAI’s expenses are in line with those of comparable airports.

- **Other outflows:** The Authority notes that AAI has exceeded the approved amount of Rs. 4.15 crores specified in the Second Control Period order for Other Outflows by incurring a total of Rs. 10.68 crores. The increase in expenses beyond the approved figures can be attributed mainly to the collection charges paid to IATA, which were not included in the Second Control Period Order’s projected figures for collection charges on User Development Fee (UDF) and Passenger Service Fee (PSF). However, after careful consideration of the analysis, the Authority considers the expenses submitted by AAI for the Second Control Period and Pre-COD Period to be reasonable. These expenses were necessary for the collection of aeronautical revenue.

4.9.15 Further, the Authority observes that AAI has considered interest on working capital as a separate line item in the true up of ARR. However, the Authority considers working capital interest as part of the Operations and Maintenance (O&M) expenses. AAI has calculated working capital interest based on the actual revenue and payment of expenses. According to their calculations, the need for working capital interest arose during the Pre COD period.

The Authority, after careful consideration, observes that the expenses related to the Pre COD period have been actualized, and there is no evidence of working capital interest being incurred in the books of TRV. As a result, including the working capital interest in the true-up calculation appears unreasonable.

Therefore, the Authority proposes to exclude the working capital interest from the true-up process.

4.9.16 Based on the analysis and rationale provided in the above paras for each head of O&M expenses, the expenses submitted by AAI for Second Control Period and Pre-COD Period have undergone adjustments. These adjustments are summarized in the table below to determine the adjusted figure for subsequent reclassification and reallocation:

Table 41: Impact of Adjustments on the O&M Expenses proposed by the Authority for Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
O&M expenses as submitted by AAI (A)	**111.01**	**136.60**	**152.05**	**169.01**	**127.64**	**696.30**	**70.78**	**767.08**
Adjustment to								
A&G Expenses (B)	-1.19	0.21	0.54	-0.42	-3.14	**-4.00**	0.08	**-3.92**
CHQ/RHQ Expense (C)	-17.91	-25.49	-11.75	-8.84	-4.35	**-68.33**	-2.45	**-70.78**
Repair and Maintenance Costs (D)	-	-0.29	-0.65	-0.55	-2.33	**-3.82**	-	**-3.82**
Utilities & Outsourcing Expenses (E)	-	-0.02	-0.08	0.29	2.30	**2.49**	-	**2.49**
Total adjustments as per the Study (F = B + C + D + E)	**-19.10**	**-25.58**	**-11.93**	**-9.52**	**-7.52**	**-73.66**	**-2.37**	**-76.03**
Adjusted O&M expenses as per the Study (G = A + F)	**91.91**	**111.01**	**140.11**	**159.48**	**120.12**	**622.64**	**68.40**	**691.05**

c) Reclassification and Reallocation of Expenses

4.9.17 The Authority notes that the Study on efficient O&M expenses for TRV has allocated O&M expenses into Aeronautical, Non-aeronautical and Common based on the following principles:

- **Aeronautical Expenses:** Expenses which are incurred for operation and maintenance of Aeronautical assets were categorized as aeronautical expenses.
- **Non-aeronautical Expenses:** Expenses which are incurred for operation and maintenance of non-aeronautical assets were categorized as non-aeronautical expenses.
- **ANS Expenses:** Expenses which are incurred for operation and maintenance of ANS assets were categorized as ANS expenses.
- **Common Expenses:** Expenses for which the benefits or use cannot be exclusively linked to either Aeronautical, Nonaeronautical or ANS were segregated as Common expenses.

4.9.18 The Authority has analysed the submission made by AAI on allocation of Common expenses into Aeronautical and Non-aeronautical on a case-to-case basis and applied appropriate re-classification and allocation ratio on the expenses wherever it noted discrepancies in the allocation of expenses by AAI in accordance with principles presented above in para 4.9.17. The table below presents the expense classification for aeronautical and common expenses, as well as the allocation ratio for each category and subcategory of O&M expenses related to the Second Control Period and Pre-COD Period submitted by AAI (Table 34) together with Authority's proposed classification and reasons:

Table 42: O&M expenses classification and allocation ratio adopted by AAI and proposed by the Authority for Second Control Period and Pre-COD Period

Expense Category	Expense Sub-Category / Description	Expense Classification as per		Reasons	Ref*
		AAI	Authority		
Employee Benefit Expenses	Salary, wages & bonus	Common (EHCR)	Common (EHCR)	It was noticed that AAI had previously categorized retirement benefits allocated by CHQ as 100% aeronautical expenses until FY 2018-19. From that point onwards	Table 17 & 46

Expense Category	Expense Sub-Category / Description	Expense Classification as per AAI	Expense Classification as per Authority	Reasons	Ref*
				until COD, AAI has used EHCR key (refer Table 34) to allocate the cost. This has been addressed by the Authority to rectify the approach by applying the revised ratio (Table 39) from FY 2016-17 onwards.	
A&G Expenses	Travelling Expenses; Expenditure on Seminar & Development Course; Freight Charges/Shifting Expenses; Insurance Costs	Aeronautical (100%)	Common (EHCR - Aero:Non-Aero)	The Authority proposes to classify these expenses as common, as they are incurred for official purposes and are expected to benefit the entire organization. Traveling expenses, expenditures on seminars and development courses, freight charges, and insurance costs are likely to be shared across different departments and units as employees from various divisions engage in these activities. Given the common nature of these expenses, the Authority proposes to apply a revised Employee Head Count Ratio (EHCR) to allocate these common expenses between aeronautical (aero) and non-aeronautical (non-aero) departments.	Table 24 & 51
	Municipal Tax; Rent, Rates & Taxes; Other Professional Fees & Expenses; Interest & Solatium Prior Period Expenses	Aeronautical (100%)	Common (GBR)	The Authority proposes to classify these expenses as common, as they are associated with the facilities used by the organization for its operations, benefiting the entire organization as a whole. Rent, rates, taxes, and other professional fees and expenses are not limited to specific departments but support various activities, including both aeronautical and non-aeronautical operations. Given their common nature, the Authority proposes allocating these expenses by applying the gross block ratio.	
	Books, Journals & Periodicals; Telephone Charges; Office Expenses; Other Sundry Expenses; Expenditure on Rajbhasha	Common (EHCR - Aero:Non-Aero:ANS)	Common (EHCR - Aero:Non-Aero:ANS)	The Authority proposes to classify these expenses as common. These expenses benefit the entire organization as they contribute to the smooth functioning, knowledge enhancement, and communication needs of all departments. They are not specific to any department, thus	

<table>
<tr><th rowspan="2">Expense Category</th><th rowspan="2">Expense Sub-Category / Description</th><th colspan="2">Expense Classification as per</th><th rowspan="2">Reasons</th><th rowspan="2">Ref*</th></tr>
<tr><th>AAI</th><th>Authority</th></tr>
<tr><td></td><td></td><td></td><td></td><td>making them suitable for common classification.
To allocate these common expenses among different departments, the Authority proposes to use the Employee Head Count Ratio (EHCR) approach. The EHCR ensures that the expenses are distributed fairly based on the number of employees working for Aero, Non-aero or ANS department.</td><td></td></tr>
<tr><td rowspan="4">R&M Expenses</td><td>Civil & Electrical works</td><td>Aeronautical (100%) / Common (TBLR)</td><td>Common (TBLR/GBR/ EHCR)</td><td rowspan="4">The Authority conducted a comprehensive analysis of each line item of R&M expenses to ensure the accuracy of the allocations made by AAI. It was observed that AAI had allocated expenses based on actual data, where specific breakdowns for Aero, Non-Aero, and ANS were available. For the remaining expenses categorized as common, AAI applied relevant ratios for allocation.
The Authority has considered the actual allocation submitted by AAI and for the common expenses, proposes to reclassify and reallocate using the principles and revised ratios presented in para 4.9.17 and Table 39 respectively. This ensures that the allocation of costs aligns more accurately with the nature and utilization of these expenses across different activities within the Airport.</td><td rowspan="4">Table 32 & 56</td></tr>
<tr><td>Furniture and Fittings</td><td>Common (EHCR)</td><td>Common (EHCR)</td></tr>
<tr><td>Electronics</td><td>Aeronautical (100%) / Common (EHCR)</td><td>Common (TBLR/ EHCR)</td></tr>
<tr><td>Vehicle</td><td>Aeronautical (100%)</td><td>Common (EHCR)</td></tr>
<tr><td rowspan="4">Utility & Outsourcing Expenses</td><td>Hire Charges of Car/Jeeps; Consumption of Petrol Oil, Lubricant (Car & Jeeps)</td><td>Aeronautical (100%)</td><td>Common (EHCR - Aero:Non-Aero)</td><td rowspan="4">The Authority conducted a comprehensive analysis of each line item of Utility & Outsourcing expenses to ensure the accuracy of the allocations made by AAI. During the examination, it was observed that AAI had allocated expenses based on actual data, where specific breakdowns for Aero, Non-aero, and ANS were available. For the remaining expenses categorized as common, AAI applied relevant ratios for allocation.</td><td rowspan="4">Table 36 & 58</td></tr>
<tr><td>Water Costs; Other Hire Charges</td><td>Aeronautical (100%)</td><td>Common (GBR)</td></tr>
<tr><td>Consumption Of Other Consumables.</td><td>Actuals</td><td>Common (TBLR - 90:10)</td></tr>
<tr><td>Watch & Ward Exp./Other</td><td>Common (TBLR)</td><td>Common (TBLR - 90:10)</td></tr>
</table>

Expense Category	**Expense Sub-Category / Description**	**Expense Classification as per**		**Reasons**	**Ref***
		AAI	**Authority**		
	Security Contracts; Conservancy Charges/Cleaning Contracts (ESS); Upkeep (MESS)			The Authority has considered the actual allocation submitted by AAI and for the common expenses proposes to reclassify and reallocate using the principles and revised ratios presented in para 4.9.17 and Table 39 respectively. This ensures that the allocation of costs aligns more accurately with the nature and utilization of these expenses across different activities within the Airport.	

**References are from the Study on Efficient Operation and Maintenance Expenses for TRV.*

4.9.19 Based on the reclassification presented in Table 42, the adjusted O&M expenses as per Table 41 has been recomputed and the impact of such reclassification/reallocation on each head of O&M expenses is as summarized below:

Table 43: Impact of Reclassification and Reallocation on the O&M expenses for Second Control Period and Pre-COD Period proposed by the Authority

(Rs. in crores)

Particulars	**FY 17**	**FY 18**	**FY 19**	**FY 20**	**FY 21**	**SCP Total (A)**	**Pre-COD (B)**	**Total (A+B)**
Adjusted O&M Expense as per the Study (A) (refer Table 41)	**91.91**	**111.01**	**140.11**	**159.48**	**120.12**	**622.64**	**68.40**	**691.05**
Impact due to reclassification & reallocation of								
Employee Benefit Expenses (B)	-0.56	-0.86	-1.18	-1.09	-0.85	**-4.53**	**-1.99**	**-6.52**
A&G Expenses (C)	-0.21	-0.07	-0.12	-0.14	-0.08	**-0.62**	**-0.05**	**-0.67**
CHQ & RHQ Expenses (D)	-	-	-	-	-	**-**	**-**	**-**
R&M Expense (E)	-0.12	-0.05	-0.04	-0.05	-0.09	**-0.34**	**-0.03**	**-0.37**
Utility & Outsourcing Expenses (F)	-0.17	-0.20	-0.27	-0.24	-0.30	**-1.18**	**-0.13**	**-1.30**
Other Outflows (G)	-	-	-	-	-	**-**	**-**	**-**
Total impact (G = B + C + D + E + F)	**-1.05**	**-1.17**	**-1.60**	**-1.52**	**-1.32**	**-6.66**	**-2.20**	**-8.87**
Revised O&M expenses (H = A + G)	**90.87**	**109.84**	**138.51**	**157.97**	**118.80**	**615.98**	**66.20**	**682.18**

4.9.20 Considering the changes above, the Authority has recalculated the aeronautical O&M expenses for Second Control Period and Pre-COD Period as given below:

Table 44: Aeronautical O&M Expenses proposed by the Authority for Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	**FY 17**	**FY 18**	**FY 19**	**FY 20**	**FY 21**	**SCP Total (A)**	**Pre-COD (B)**	**Total (A+B)**
As per AAI submission								
Employee Benefit Expenses	48.71	60.58	74.97	78.42	58.01	**320.70**	33.30	**354.00**
A&G Expenses	2.61	1.90	2.56	3.92	5.59	**16.58**	0.04	**16.62**
CHQ & RHQ Expenses	32.58	43.44	42.45	52.47	31.11	**202.05**	17.54	**219.59**
R&M Expense	11.95	11.46	12.54	12.46	15.65	**64.05**	9.61	**73.66**

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Utility & Outsourcing Expenses	13.64	16.57	16.52	18.68	16.83	**82.25**	9.63	**91.88**
Other Outflows	1.53	2.64	3.01	3.06	0.45	**10.68**	0.66	**11.33**
Total Aeronautical O&M Expenses	**111.01**	**136.60**	**152.05**	**169.01**	**127.64**	**696.30**	**70.78**	**767.08**
As per the Authority								
Employee Benefit Expenses	48.15	59.73	73.80	77.33	57.16	**316.17**	31.31	**347.48**
A&G Expenses	1.21	2.05	2.98	3.35	2.37	**11.96**	0.06	**12.02**
CHQ & RHQ Expenses	14.67	17.96	30.70	43.63	26.76	**133.72**	15.09	**148.80**
R&M Expense	11.83	11.11	11.86	11.86	13.23	**59.89**	9.58	**69.47**
Utility & Outsourcing Expenses	13.47	16.36	16.16	18.73	18.83	**83.56***	9.50	**93.07**
Other Outflows	1.53	2.64	3.01	3.06	0.45	**10.68**	0.66	**11.33**
Total Aeronautical O&M Expenses	**90.87**	**109.84**	**138.51**	**157.97**	**118.80**	**615.98**	**66.20**	**682.18**

**The increase in Utility and Outsourcing expenses is due to the following – increase of Rs. 2.85 crores due to reclassification of Inline Baggage Manpower expense from R&M expenses, exclusion of Rs. 0.36 crores due to reclassification of Other Hire Charges (AAICLAS) and decrease of Rs.1.18 crores due to change in classification (aeronautical, non-aeronautical and common) and reallocation of ratios.*

4.9.21 As can be seen above, the aeronautical O&M expense proposed by the Authority for the Second Control Period and the Pre-COD Period is determined to be Rs. 682.18 crores after considering the following:

A. Adjustments to the O&M expenses submitted by AAI (refer Table 41) – Impact of Rs. 76.03 crores

B. Re-classification and Re-allocation of the O&M expenses (refer Table 42 and Table 43 respectively) – Impact of Rs. 8.87 crores

4.10 True up of Return on Land

AAI's submission for true up of Return on Land (Unamortized value of land) for Second Control Period and Pre-COD period

4.10.1 AAI has claimed unamortized value of land of Rs 0.33 crores in the Pre COD period as part of its true up submission process. Considering that TRV has been transferred to TKIAL w.e.f. 14th October 2021, AAI has submitted that the unamortized cost of the land be allowed to be claimed in the Pre-COD Period.

Authority's examination and proposal for true up of Return on Land (Unamortized value of land) for Pre-COD period

4.10.2 The Authority notes that AAI has included the unamortized cost of the land in their claims for the Pre-COD period. The Authority notes that the Land has not been transferred by AAI to TKIAL. The Authority highlights the following clauses in the Order No. 42/ 2018-19 (In the matter of determination of Fair Rate of Return (FRoR) to be provided on the Cost of Land incurred by various Airport Operators in India) dated 5th March 2019:

"4.1.4 In case land is purchased by the airport operating company either from private parties or from government, the compensation shall be in the form of equated annual instalments computed at actual cost of debt or SBI, base rate plus 2% whichever is lower over a period of thirty years.

4.1.8 This order of the Authority will take effect from the next control period."

4.10.3 From the perusal of the above Order, it is evident that the benefit of compensation is available to the Airport Operator (AAI)

(i) over a period of thirty years; and
(ii) from the Control Period subsequent to the date of the Order i.e. 5th March 2019.

4.10.4 Further, the Order envisages return on land over a period of thirty years and it does not contemplate providing cumulative return on land as proposed by AAI in its submission for true up of Pre-COD period. Hence, the Authority proposes not to consider the amortization of the balance cost of Land claimed by AAI (Rs. 0.33 crores), as part of its true up submission for the pre-COD period.

4.11 True up of Non-Aeronautical Revenue

AAI's submission for true up of Non-Aeronautical Revenue for Second Control Period and Pre-COD period

4.11.1 AAI has submitted the actual Non-Aeronautical Revenue (NAR) for the Second Control Period and Pre-COD period for TRV as follows:

Table 45: Non-Aeronautical Revenue submitted by AAI for Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Revenue from Trading Concessions								
Restaurant / Snack Bar	2.97	3.01	7.79	8.43	1.39	23.60	0.79	24.39
TR Stall/ others	16.74	21.67	22.30	27.33	3.31	91.35	6.71	98.05
Hoarding & Display	2.00	2.03	2.84	3.85	0.48	11.21	0.08	11.29
Rent and other revenues								
Land Leases	0.18	1.25	0.12	0.37	0.45	2.37	0.58	2.95
Buildings (Residential)	0.01	0.01	0.01	0.01	0.01	0.06	0.00	0.06
Buildings (Non-Residential)	6.05	5.53	8.21	9.01	6.36	35.16	10.28	45.44
Duty Free Shops	15.26	14.33	17.84	22.47	3.58	73.47	1.87	75.34
Car Parking	5.64	5.95	7.42	5.49	0.75	25.24	0.54	25.77
Admission Tickets	1.04	2.04	2.21	2.02	0.13	7.44	0.08	7.52
Rest Room	0.01	0.01	0.02	0.01	0.00	0.04	0.00	0.04
Other Misc. Income	5.72	2.29	6.54	9.82	8.11	32.47	1.85	34.32
Total	**55.62**	**58.12**	**75.29**	**88.81**	**24.56**	**302.40**	**22.79**	**325.19**

Recap of decision taken by the Authority for Non-aeronautical Revenue at the time of tariff determination for the Second Control Period

4.11.2 The Authority vide Decision no. 10 of Order no. 03/2017-18 dated 2nd June 2017 had decided the following with respect to NAR for the Second Control Period:

- *Decision no. 10.a. The Authority decides to consider the revenues accruing to AAI on account of the aeronautical services of Cargo facility, Ground Handling Services and Supply of fuel to aircraft (FTC) including land lease rentals and building rent from these activities as aeronautical revenue.*
- *Decision no. 10.b. The Authority decides to consider the Non-Aeronautical revenue as per Table 35.*

Table 46: NAR as approved by the Authority for Second Control Period (Table 35 in Second Control Period Order)

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	Total
Non-Aeronautical Revenues as per AAI (A)	60.29	66.13	72.54	79.58	87.30	365.84
Adjustment:						
Revenue from Cargo, ground handling and fuel services considered as aeronautical revenues (1)	5.76	6.24	6.76	7.32	7.93	34.01
Additional revenues from increase in non-aeronautical area (2)	0.82	2.81	3.09	3.40	3.74	13.86
Change in lease revenue on account of drop of domestic cargo terminal proposal (3)	0.72	0.79	0.87	0.95	1.05	4.38
Adjustment by the Authority (B =1-2+3)	5.66	4.21	4.53	4.87	5.23	24.50
NAR Projections as per Authority (A-B)	**54.63**	**61.92**	**68.01**	**74.71**	**82.07**	**341.34**

- *Decision no 10.c "The Authority decides that non-aeronautical revenue will be trued up if it is higher than the projected revenues. In case there is a shortfall, true up would be undertaken only if the Authority is satisfied that there are reasonably sufficient grounds for not realizing the projected revenues."*

Authority's examination and proposal for true up of Non-Aeronautical Revenue (NAR) for the Second Control Period and Pre-COD period

4.11.3 The Authority has taken note of the non-aeronautical revenues related to the Second Control Period and Pre-COD Period submitted by AAI. To assess and compare the non-aeronautical revenues during the Pre-COD period, the Authority computed estimated figures by extrapolating the approved non-aeronautical revenues from FY 2020-21 (as per the Second Control Period order) to the Pre-COD period of 196 days. This extrapolation was done using the growth rate (10%) used to project NAR for FY 2020-21 as specified in the order.

Table 47: NAR for Pre-COD Period (196 days) extrapolated based on growth rates decided in the Second Control Period Order for FY 2020-21

(Rs. in crores)

Particulars	FY 21	Growth %	FY 22	Pre COD*
NAR	82.07	10.00%	90.28	48.48

** Prorated considering the number of days from 1st April 2021 till 13th October 2021, i.e., 196 days*

4.11.4 The Authority compared the actual Non-aeronautical revenue submitted by AAI as per Table 45 with the projections given in the Tariff Order for the Second Control Period as per Table 46 and Pre COD Period as per Table 47 and the same is detailed as follows:

Table 48: Comparison of actual non-aeronautical revenue as per AAI and projections as per Tariff Order for Second Control Period and estimated figure for Pre COD period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
NAR Projections as per Tariff Order for the Second Control Period (A)	54.63	61.92	68.01	74.71	82.07	**341.34**	48.48	**389.82**
Actual NAR as per AAI's submission (B)	55.62	58.12	75.29	88.81	24.56	**302.40**	22.79	**325.19**
Variance (A-B)	**-0.99**	**3.80**	**-7.28**	**-14.10**	**57.51**	**38.94**	**25.69**	**64.63**

4.11.5 For FYs 2016-17, 2018-19 and 2019-20 the Authority noted that the NAR as per AAI has exceeded the projections approved by the Authority in the Tariff Order for the Second Control Period by approximately 7.16%. The Authority observed that the non-aeronautical revenues earned for FY 2017-18, FY 2020-21 and Pre-COD period were on the lower side compared (by approximately 6%, 70% & 53% respectively) to the projections approved by the Authority in the tariff order for the Second Control Period and estimated figure computed above in Table 47. However, it would be pertinent to note that the passenger traffic in FY 2020-21 has dropped by approximately 76% (~79% drop in international and ~72% drop in domestic) compared to FY 2019-20 due to the negative impact of the COVID-19 pandemic. During the Pre-COD period (1st April 2021 to 13th October 2021), there was a growth of 12.61% in traffic compared to the proportionate traffic (196 days) of FY 2020-21 (the COVID-19 year). However, when compared to the traffic in FY 2019-20 (the pre-COVID level), there was still a significant drop of 73% in traffic. The Authority also observed that the decrease in FY 2017-18 was mainly due to a decrease in revenue earned from duty free shops, land lease and other miscellaneous incomes.

4.11.6 The Authority notes its decision no. 10c vide Tariff No. 03/ 2017-18 which states as follows: *"The Authority decides that Non-Aeronautical revenues will be trued up if it is higher than the projected revenues. In case there is a shortfall, true up would be undertaken only if the Authority is satisfied that there are reasonably sufficient grounds for not realizing the projected revenues".*

4.11.7 The Authority is of the view that the variance between the projected and actual NAR for FY 2020-21 and Pre COD period is due to adverse impact of COVID-19 pandemic leading to a substantial decline in passenger traffic and its impact on non-aeronautical revenues for the period. While there was some recovery during the Pre-COD period, it was still far from reaching the pre-pandemic levels of traffic and revenue. Thus, the Authority proposes to consider truing up the actual NAR submitted by AAI for the pre-COD period.

4.11.8 The Authority vide email dated 30th May 2023, requested AAI to share the details regarding "Space rentals collected from Airlines". AAI, vide email dated 19th June 2023, responded with the following table:

Table 49: Breakup of "Space rentals collected from Airlines" as shared by AAI

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Air Arabia PJSC	0.03	0.04	0.04	0.04	0.04	0.20	0.03	0.22
Air India Express Limited	-	-	-	0.05	0.04	0.10	0.02	0.12
Air India Limited	3.28	1.33	1.93	0.26	1.03	7.84	0.43	8.27
Emirates	0.28	0.31	0.33	0.37	0.33	1.62	0.21	1.83
Etihad Airways	0.08	0.09	0.09	0.10	0.10	0.46	0.06	0.51
Fly Dubai	0.02	0.02	0.02	-	-	0.05	-	0.05
Gulf Air	0.05	0.06	0.06	0.06	0.06	0.29	0.03	0.32
Islands Aviation Limited	0.03	0.03	0.04	0.04	0.04	0.19	0.02	0.21
Jet Airways	0.59	0.80	0.41	0.04	-	1.83	-	1.83
Kuwait Airlines	0.10	0.11	0.12	0.13	0.13	0.59	0.07	0.66
Malindo Air	0.04	0.04	0.04	0.05	0.01	0.18	-	0.18
Oman Air (S A O C)	0.10	0.11	0.12	0.13	0.12	0.57	0.07	0.64
Qatar Airways	0.11	0.12	0.13	0.14	0.13	0.62	0.07	0.69
Saudi Arabian Airlines	0.00	0.03	0.05	-	-	0.07	-	0.07
Spice Jet Limited	0.22	0.13	0.11	0.12	0.69	1.27	0.42	1.69
Srilankan Airlines	0.08	0.08	0.09	0.10	0.10	0.45	0.06	0.51

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Tata Sia Airlines Limited	-	-	0.00	0.07	0.15	0.22	0.09	0.30
Total	**5.00**	**3.28**	**3.58**	**1.69**	**2.98**	**16.54**	**1.58**	**18.11**

4.11.9 The Authority is of the view that space rentals from agencies providing aeronautical services should be treated as Aeronautical Revenue. Hence, the Authority proposes to consider "Space rentals collected from Airlines" amounting to Rs. 18.11 crores as Aeronautical Revenue.

4.11.10 Based on its analysis, the Authority proposes to consider the actual Non-aeronautical Revenue as given in the table below for true up of AAI for the Second Control Period and Pre-COD period.

Table 50: Non-aeronautical Revenue proposed by the Authority for true-up of AAI for Second Control Period and Pre-COD period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Revenue from Trading Concessions								
Restaurant / Snack Bar	2.97	3.01	7.79	8.43	1.39	23.60	0.79	24.39
TR Stall/ others	16.74	21.67	22.30	27.33	3.31	91.35	6.71	98.05
Hoarding & Display	2.00	2.03	2.84	3.85	0.48	11.21	0.08	11.29
Rent and other revenues								
Land Leases	0.18	1.25	0.12	0.37	0.45	2.37	0.58	2.95
Buildings (Residential)	0.01	0.01	0.01	0.01	0.01	0.06	0.00	0.06
Buildings (Non-Residential)	6.05	5.53	8.21	9.01	6.36	35.16	10.28	45.44
Duty Free Shops	15.26	14.33	17.84	22.47	3.58	73.47	1.87	75.34
Car Parking	5.64	5.95	7.42	5.49	0.75	25.24	0.54	25.77
Admission Tickets	1.04	2.04	2.21	2.02	0.13	7.44	0.08	7.52
Rest Room	0.01	0.01	0.02	0.01	0.00	0.04	0.00	0.04
Other Misc. Income	5.72	2.29	6.54	9.82	8.11	32.47	1.85	34.32
Total (A)	**55.62**	**58.12**	**75.29**	**88.81**	**24.56**	**302.40**	**22.79**	**325.19**
Less: Space rentals collected from Airlines (B) (refer para 4.11.9)	**5.00**	**3.28**	**3.58**	**1.69**	**2.98**	**16.54**	**1.58**	**18.11**
Total Non-Aero Revenue (A-B)	**50.62**	**54.84**	**71.71**	**87.11**	**21.58**	**285.86**	**21.21**	**307.07**

4.12 True up of Aeronautical Revenue

<u>AAI's submission for true up of Aeronautical Revenue for Second Control Period and Pre-COD period</u>

4.12.1 AAI has submitted the actual Aeronautical revenue for the Second Control Period and Pre-COD period for TRV as follows:

Table 51: Aeronautical Revenue submitted by AAI for Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Landing charges								
Landing Domestic	9.22	14.43	15.89	12.97	5.55	**58.06**	3.31	**61.37**

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Landing International	21.33	31.33	35.64	28.09	10.85	**127.24**	7.22	**134.47**
Parking charges	0.72	0.24	0.30	0.48	0.68	**2.41**	0.39	**2.80**
PSF and UDF charges								
PSF Domestic	7.52	2.18	0.00	0.00	0.00	**9.70**	0.00	**9.70**
PSF International	9.92	4.47	0.00	0.00	0.00	**14.39**	0.00	**14.39**
UDF Domestic	0.00	33.11	104.46	116.32	29.59	**283.48**	19.86	**303.34**
UDF International	65.03	106.44	90.40	54.84	4.43	**321.13**	4.70	**325.83**
Other revenue								
CUTE charges	2.35	3.03	3.53	3.51	0.76	**13.17**	0.51	**13.68**
Fuel Throughput Revenue	1.80	2.22	2.42	2.01	0.00	**8.45**	0.00	**8.45**
Cargo Revenue	1.25	1.25	0.94	0.94	0.94	**5.32**	0.51	**5.82**
Concession Fees from AAICLAS	0.00	0.08	0.29	0.24	0.18	**0.79**	0.10	**0.89**
Revenue from Ground Handling Agency	11.61	10.02	13.81	9.42	4.30	**49.15**	2.26	**51.41**
Land lease to Oil companies	1.71	1.70	1.45	1.45	1.43	**7.73**	0.46	**8.19**
Land lease to GHA	4.63	3.66	2.62	-0.99	1.76	**11.67**	0.00	**11.67**
Total	**137.07**	**214.14**	**271.75**	**229.27**	**60.46**	**912.70**	**39.32**	**952.01**

Recap of decision taken by the Authority for Aeronautical Revenue at the time of tariff determination for the Second Control Period

4.12.2 The Authority vide Decision no. 13 of Order no. 03/2017-18 dated 2nd June 2017 had decided the following with respect to aeronautical revenue for the Second Control Period.

- *Decision no. 13.b. The Authority decides to continue with waiver of landing charges for (a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators (b) Helicopters of all types as approved by Govt. of India vide order no. G.17018/7/2001- AAI dated 9th February 2004 in order to encourage and promote intra-regional connectivity at TRV.*
- *Decision no. 13c. The Authority decides to provide waiver of landing and other charges in line with the Order No. 20/2016-17 dated 31st March 2017 of the Authority.*
- *Decision no. 13d. The Authority decides to merge UDF and PSF (facilitation) charges and only UDF charges to be applicable on each domestic and international embarking passenger w.e.f. 1st July 2017.*
- *Decision no. 13e. The Authority decides to consider shortfall/ excess in revenues for the 2nd control period based on proposed tariffs by AAI while determining aeronautical tariffs for the 3rd control period.*

4.12.3 The Authority had estimated the aeronautical revenues as given in the table below at the time of tariff determination for the Second Control Period.

Table 52: Aeronautical Revenue as per Tariff Order for Second Control Period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	Total
Aeronautical revenue Projections as per Tariff Order for the Second Control Period	136.66	207.44	253.05	280.85	312.07	1,190.07

Authority's examination and proposal for true up of Aeronautical revenue for the Second Control Period and Pre-COD period

4.12.4 The Authority noted that as per decision no 10a. in the Order no. 03/2017-18 regarding aeronautical revenues, AAI has considered services related to Cargo facility, Ground Handling Services and Supply of fuel to aircraft (FTC) including land lease rentals and building rent from these activities as Aeronautical Revenue in their true up submission.

4.12.5 The Authority compared the actual Aeronautical revenue submitted by AAI as per Table 51 with the projections given in the Tariff Order for the Second Control Period as per Table 52 and the same is detailed below.

Table 53: Comparison of actual aeronautical revenue as per AAI and projections as per Tariff Order for Second Control Period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	Total
Aeronautical revenue Projections as per Tariff Order for the Second Control Period (A)	136.66	207.44	253.05	280.85	312.07	1190.07
Actual Aeronautical revenue (B)	137.07	214.14	271.75	229.27	60.46	912.70
Variance (A-B)	**-0.41**	**-6.70**	**-18.70**	**51.58**	**251.61**	**277.37**

4.12.6 The Authority notes that there is a slight reduction between Projected and Actual Aeronautical revenue in the FY 2019-20 and a significant variance in FY 2020-21, which is attributable to lower passenger and ATM traffic due to the adverse impact of the COVID-19 pandemic on the Aviation sector.

4.12.7 As observed in para 4.11.9, the Authority proposes to make certain adjustments to the aeronautical revenue by reclassifying "Space rentals collected from Airlines" as aeronautical revenue. Hence, the Authority proposes to recompute and consider the Aeronautical Revenue for true up of AAI for the Second Control Period and Pre COD period as shown in the following table.

Table 54: Aeronautical Revenue proposed by the Authority for true up of AAI for Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Landing charges								
Landing Domestic	9.22	14.43	15.89	12.97	5.55	58.06	3.31	61.37
Landing International	21.33	31.33	35.64	28.09	10.85	127.24	7.22	134.47
Parking charges	0.72	0.24	0.30	0.48	0.68	2.41	0.39	2.80
PSF and UDF charges								
PSF Domestic	7.52	2.18	0.00	0.00	0.00	9.70	0.00	9.70
PSF International	9.92	4.47	0.00	0.00	0.00	14.39	0.00	14.39
UDF Domestic	0.00	33.11	104.46	116.32	29.59	283.48	19.86	303.34
UDF International	65.03	106.44	90.40	54.84	4.43	321.13	4.70	325.83
Other revenue								
CUTE charges	2.35	3.03	3.53	3.51	0.76	13.17	0.51	13.68
Fuel Throughput Revenue	1.80	2.22	2.42	2.01	0.00	8.45	0.00	8.45
Cargo Revenue	1.25	1.25	0.94	0.94	0.94	5.32	0.51	5.82
Concession Fees from AAICLAS	0.00	0.08	0.29	0.24	0.18	0.79	0.10	0.89
Revenue from Ground Handling Agency	11.61	10.02	13.81	9.42	4.30	49.15	2.26	51.41

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Land lease to Oil companies	1.71	1.70	1.45	1.45	1.43	7.73	0.46	8.19
Land lease to GHA	4.63	3.66	2.62	-0.99	1.76	11.67	0.00	11.67
Total (A)	**137.07**	**214.14**	**271.75**	**229.27**	**60.46**	**912.70**	**39.32**	**952.01**
Add: Space Rentals collected from Airlines (B)	**5.00**	**3.28**	**3.58**	**1.69**	**2.98**	**16.54**	**1.58**	**18.11**
Total Aeronautical revenue (A+B)	**142.08**	**217.42**	**275.33**	**230.96**	**63.45**	**929.23**	**40.89**	**970.13**

Note – The total Aeronautical Revenue of Rs. 970.13 crores proposed by the Authority is arrived at by considering Rs.18.11 crores of space rentals from Airlines as Aeronautical Revenues which was considered under Non-Aeronautical Revenue by AAI (refer para 4.12.7)

4.13 True up of Taxation

AAI's submission for true up of Taxation for Second Control Period and Pre-COD period

4.13.1 AAI has submitted taxation for the Second Control Period and Pre-COD period as follows:

Table 55: Tax expenditure submitted by AAI for the Second Control Period and Pre-COD period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Revenue								
Aeronautical Revenue	137.07	214.14	271.75	229.27	60.46	**912.70**	39.32	**952.01**
Return on Land	-	-	-	-	-	**-**	0.33	**0.33**
Total (A)	**137.07**	**214.14**	**271.75**	**229.27**	**60.46**	**912.70**	**39.65**	**952.34**
Shortfall/ under recovery proposed to be collected (Refer Table 8) (B)	-	-	-	-	-	**-**	812.67	**812.67**
Expenses								
O&M expenses (Refer Table 8)	111.01	136.60	152.05	169.01	127.64	**696.30**	70.78	**767.08**
Interest on Working Capital	-	-	-	-	-	**-**	0.68	**0.68**
Depreciation (as per Income Tax Act, 1961)	41.65	47.38	38.46	42.60	46.81	**216.90**	45.35	**262.25**
Total (C)	**152.66**	**183.98**	**190.50**	**211.61**	**174.45**	**913.20**	**116.81**	**1,030.02**
Profit /Loss (D=A+B-C)	**-15.59**	**30.16**	**81.25**	**17.66**	**-113.99**	**-0.51**	**735.51**	**735.00**
Prior period loss (E)		-15.59					-113.99	
Profit Before Tax (F)		**14.57**	**81.25**	**17.66**			**621.52**	
Tax Rates (G)	34.61%	34.61%	34.94%	25.17%	25.17%		25.17%	
Tax (H=F*G)	**-**	**5.04**	**28.39**	**4.44**	**-**		**156.44**	

Recap of decision taken by the Authority for Taxation at the time of tariff determination for the Second Control Period

4.13.2 The Authority vide Decision no. 12 of Order no. 03/2017-18 dated 2nd June 2017 had decided the following Taxation for the Second Control Period.

- *Decision no 12.a. The Authority decides to consider the corporate tax for aeronautical activities as per Table 43 for the 2nd Control Period.*

Table 56: Tax expenditure approved by the Authority for the Second Control Period (Table 43 of SCP Order)

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	Total
Aeronautical Revenue	136.66	207.44	253.05	280.85	312.07	**1190.07**
Aeronautical O&M (excluding CHQ/RHQ Overheads)	72.55	85.65	91.38	97.56	104.22	**451.36**
CHQ/RHQ Overheads	31.36	34.67	36.62	38.68	40.86	**182.19**
Depreciation as per Income Tax Act	16.49	24.38	23.24	21.21	35.99	**121.31**
PBT	16.28	62.76	101.84	123.42	131.04	**435.34**
Tax for aeronautical services	**5.63**	**21.71**	**35.24**	**42.7**	**45.34**	**150.62**

- *Decision no 12.b. The Authority decides to true up the difference between the actual/ apportioned corporate tax paid and that estimated by the Authority for the 2nd control period during determination of tariffs for the 3rd control period.*

Authority's examination and proposal for true up of Taxation for the Second Control Period and Pre-COD period

4.13.3 The Authority notes that AAI has computed tax of Rs. 156.44 crores on the shortfall amount (difference between Target Revenue and Actual Aeronautical revenue) of Rs. 812.67 crores, which is present value of the shortfall of the Pre-COD period, that is proposed to be collected from TKIAL as per Clause 28.11.4 of the Concession agreement (Refer para 4.7.2 for the clause).

4.13.4 The Authority has re-computed taxation amount based on its analysis of O&M expenses, RAB, etc. and the same is presented in the table below:

Table 57: Tax proposed by the Authority for true up of Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Aeronautical Revenue (refer Table 54) (A)	142.08	217.42	275.33	230.96	63.45	**929.23**	40.89	**970.13**
Shortfall/ under recovery proposed to be collected as on COD (refer Table 58) (B)							662.07	**662.07**
O&M expenses (refer Table 44) (C)	90.87	109.84	138.51	157.97	118.80	**615.98**	66.20	**682.18**
Depreciation (as per Income Tax Act, 1961) (D)	46.85	48.96	47.67	50.55	53.55	**247.57**	28.20	**275.77**
Profit /(Loss) (E =A+B-C-D)	**4.36**	**58.62**	**89.15**	**22.45**	**-108.90**	**65.68**	**608.57**	**674.25**
Carry forward of prior period loss (F)							-108.90	**-108.90**
Net profit after setting off prior period losses (G=E+F)	**4.36**	**58.62**	**89.15**	**22.45**	**-**	**174.58**	**499.67**	**674.25**
Tax Rates (H)	34.61%	34.61%	34.94%	25.17%	25.17%		25.17%	
Tax (I=G*H)	**1.51**	**20.29**	**31.15**	**5.65**	**-**	**58.60**	**125.77**	**184.36**

4.13.5 The Authority proposes to consider tax as per Table 57 for True up of the Second Control Period and Pre-COD period. Also, the Authority has adjusted the losses incurred by AAI (Rs. 108.90 crores as per Table 57) in the previous Financial Years against the Shortfall amount of Rs. 662.07 crores derived by the Authority (as per Table 58), which is proposed to be collected by AAI from TKIAL.

4.14 True up of Aggregate Revenue Requirement (ARR)

Authority's examination and proposal regarding true up of ARR for the Second Control Period and Pre-COD Period

4.14.1 Based on its analysis of the various building blocks, the Authority has determined the ARR and Shortfall (Under recovery) for True up of the Pre-COD period as presented in the table below:

Table 58: ARR proposed by the Authority for true up of AAI for Second Control Period and Pre-COD Period

(Rs. in crores)

Particulars	Ref	FY17	FY18	FY19	FY20	FY21	SCP Total (A)	Pre-COD (B)	Total (A+B)
Average RAB (refer Table 29)		404.63	443.96	441.60	462.13	486.51		493.75	
Fair Rate of Return (refer Table 32)		13.97%	13.97%	13.97%	13.97%	13.97%		7.50%	
Return on Average RAB	**A**	**56.54**	**62.03**	**61.70**	**64.57**	**67.98**	**312.82**	**37.05**	**349.87**
Depreciation (refer Table 28)	B	29.46	33.52	37.43	39.56	42.69	**182.65**	22.53	**205.19**
Operating Expenditure (refer Table 44)	C	90.87	109.84	138.51	157.97	118.80	**615.98**	66.20	**682.18**
Corporate Tax (refer Table 57)	D	1.51	20.29	31.15	5.65	-	**58.60**	125.77	**184.36**
Carry forward of shortfall of First Control Period*	E	158.83					**158.83**		**158.83**
ARR (Sum A : E)	**F**	**337.20**	**225.68**	**268.78**	**267.75**	**229.47**	**1,328.88**	**251.55**	**1,580.43**
Non-aeronautical revenue (NAR) (refer Table 50)	G	50.62	54.84	71.71	87.11	21.58	**285.86**	21.21	**307.07**
Less: 30% of NAR	H	15.19	16.45	21.51	26.13	6.47	**85.76**	6.36	**92.12**
Net ARR (F-H)	**I**	**322.02**	**209.23**	**247.27**	**241.61**	**222.99**	**1,243.12**	**245.18**	**1,488.31**
Revenue from Aeronautical Services (refer Table 54)	J	142.08	217.42	275.33	230.96	63.45	**929.23**	40.89	**970.13**
(Over recovery) / Under recovery (I-J)	**K**	**179.94**	**-8.19**	**-28.06**	**10.65**	**159.55**	**313.89**	**204.29**	**518.18**
Present Value (PV) factor	L	1.81	1.59	1.39	1.22	1.07		1.00	
PV of (Over recovery) / Under recovery as on 14th October 2021 (K*L)	**M**	**325.71**	**-13.00**	**-39.10**	**13.02**	**171.16**	**457.78**	**204.29**	**662.07**
Total (Over-recovery) / Under recovery till COD	**N**								**662.07**
PV factor @ 13.97% as on 31st March 2022	O								1.06
PV of (Over recovery) /Under recovery as on 31st March 2022 (N*O)	**P**								**703.40**
PV factor @ 12.21% as on 31st March 2023	Q								1.12
PV of (Over recovery) / Under recovery as on 31st March 2023 (P*Q)	**R**								**789.29**

**As per Decision 2.e of the Authority in Order No. 03/2017-18 for the Second Control Period*

4.14.2 The ARR proposed by the Authority is Rs. 1488.31 crores (refer Table 58), as against Rs. 1,584.44 crores submitted by AAI. The variance is on account of the following:

i. Reduction in Return on RAB considered by the Authority due to reclassification of assets and change in FRoR – Impact of Rs. 4.60 crores
ii. Reduction in Depreciation considered by the Authority due to reclassification of assets and revision in useful life of certain assets – Impact of Rs. 1.11 crores
iii. Rationalization of O&M expenses claimed by AAI, based on O&M Study report – Impact of Rs. 84.90 crores
iv. Non-consideration of working capital interest – Impact of Rs. 0.68 crores
v. Non-consideration of unamortized value of land and providing return – Impact of Rs. 0.33 crores
vi. Reduction in Corporate taxes – Impact of Rs. 9.95 crores
vii. Reduction in Non-Aeronautical Revenue – Rs. 18. 11 crores resulting in an increase in ARR by Rs. 5.43 crores

4.15 Adjusted Deemed Initial RAB

4.15.1 The Authority notes that AAI in its True-up submission had computed the Adjusted Deemed Initial RAB as on COD as Rs. 874.93 crores after adjusting an amount of Rs. 424 crores already paid by TKIAL. In this regard, Clause 28.11.4 of the CA states as follows:

Pursuant to the payment of the Estimated Deemed Initial RAB, and upon the reconciliation, true-up and final determination by the Regulator of the quantum of the investment under 28.11.3(a), any surplus or deficit in the Estimated Deemed Initial RAB with respect to the Deemed Initial RAB shall be adjusted as part of the Balancing Payment that becomes due and payable as per Clause 31.4 after the expiry of 15 (fifteen) days from such final determination by the Regulator, with due adjustment for the following ("Adjusted Deemed Initial RAB”):

a) reduced to the extent of over-recoveries, if any, of Aeronautical Revenues by the Authority until the COD, that the Regulator would provide for as a downward adjustment while determining Aeronautical Charges for the next Control Period; or
b) increased to the extent of under-recoveries, if any, of Aeronautical Revenues by the Authority until the COD, that the Regulator would provide for as an upward adjustment while determining Aeronautical Charges for the next Control Period.

The amount(s) to be paid by the Authority or Concessionaire shall be the present value of Adjusted Deemed Initial RAB calculated using the fair rate of return as determined by the Regulator for the time period from the COD to the date of actual payment of the Adjusted Deemed Initial RAB.

4.15.2 Accordingly, the Authority computed the Adjusted Deemed Initial RAB as follows:

Table 59: Adjusted Deemed Initial RAB as computed by the Authority

(Rs. in crores)

Particulars	Formula	Refer	Amount
Deemed Initial RAB	A	Para 4.7.5	483.77
Estimated Deemed Initial RAB	B	Clause 28.11.3 (b) of CA	424.00
Difference	C=A-B		59.77
PV of Under-recovery in Second Control Period and Pre-COD Period as on COD	D	Table 58	662.07
Adjusted Deemed Initial RAB as on COD	**E=C+D**		**721.84**

4.15.3 In accordance with the provisions of Clause 28.11.4 of the CA, AERA has computed the Adjusted Deemed Initial RAB as on COD i.e., Rs. 721.84 crores (shown in Table 59) and derived the future value of such Adjusted Deemed Initial RAB by applying the compounding factor of FRoR and assuming a future expected date of payment by the Concessionaire (TKIAL) to the Airports Authority of India as follows:

i. The Authority has assumed future expected date of payment of Adjusted Deemed Initial RAB as 31st May 2024, based on the assumption that the Tariff Order for TRV, Thiruvananthapuram (wherein the Deemed Initial RAB is finally determined by the Regulator) is issued on or before 20th May 2024.

ii. The Authority has applied a compounding factor to determine future value of the Under- recovery as on COD by applying:

- FRoR @ 13.97% from COD up to 31st March 2022 and
- FRoR @ 12.21% from 1st April 2022 up to 31st May 2024 (based on the FRoR determined by AERA for the Third Control Period for TRV, Thiruvananthapuram, as discussed under Chapter 8 of this Consultation Paper).

4.15.4 The Adjusted Deemed Initial RAB computed as on COD, 31st March 2022, 31st March 2023, 31st March 2024 and 31st May 2024 has been presented in the table below:

Table 60: Adjusted Deemed Initial RAB computed as on future date of payment

(Rs. in crores)

Particulars	As on COD	31st March 2022	31st March 2023	31st March 2024	31st May 2024
Adjusted Deemed Initial RAB	721.84	766.90	860.54	965.62	984.70

4.15.5 It is likely that the actual date of payment is different from 31st May 2024 as presented in the above table. In that scenario, following formula may be used for determining the Adjusted Deemed Initial RAB on a particular payment date:

$$\text{Adjusted Deemed Initial RAB}_{t} = A \times (1 + r) ^\wedge (t \div 365)$$

where,

- A = Adjusted Deemed Initial RAB computed as on 31st March 2024
- r = FRoR for Third Control Period, computed as 12.21% (refer Chapter 8).
- t = Number of days elapsed between 31st March 2024 and actual date of payment

4.15.6 The projection of Adjusted Deemed Initial RAB on a particular payment date is illustrated through the following example:

Table 61: Illustration for computation of Adjusted Deemed Initial RAB based on date of payment

Particulars	Value
Assumed date of payment	10th June 2024
Adjusted Deemed Initial RAB as on 31st March 2024 (A) (Rs. in crores)	965.62
FRoR for TCP (R)	12.21%
Number of days between 1st April 2024 and 10th June 2024 (t)	71
Adjusted Deemed Initial RAB as on 10th June 2024 (Rs. in crores) [A × (1 + r) ^ (t ÷ 365)]	965.62 * (1 + 12.21%) ^ (71 ÷ 365) 987.50

4.15.7 The Authority has proposed the Adjusted Deemed Initial RAB as explained above and requests the Stakeholders to provide their comments on the same.

4.15.8 The Authority proposes to consider under-recovery of Rs. 789.29 crores as of 31st March 2023 (as per Table 58) for True up of AAI for the Second Control Period and Pre-COD period and readjust the same in the ARR computation of TRV, Thiruvananthapuram for the Third Control Period.

4.16 Authority's proposals regarding True up for the Second Control Period and Pre-COD Period

Based on the material before it and its examination, the Authority proposes the following with respect to True up of the Second Control Period and Pre-COD period for TRV, Thiruvananthapuram:

4.16.1 To consider the Passenger traffic and ATM as detailed in para 4.4.8 (Table 10) for true up of the Second Control Period and Pre-COD Period.

4.16.2 To consider capital additions and aeronautical allocation of assets as detailed in Table 23.

4.16.3 To recompute Depreciation considering the revised allocation of assets as detailed in para 4.6.6 (Table 28) for true up of AAI for the Second Control Period and Pre-COD Period.

4.16.4 To consider RAB for AAI as detailed in para 4.7.1 (Table 29) for true up of the Second Control Period and Pre-COD Period.

4.16.5 To consider Deemed Initial RAB for TRV as detailed in para 4.7.5 (Table 30).

4.16.6 To consider FRoR as detailed in para 4.8.10 for true up of the Second Control Period and Pre-COD Period.

4.16.7 To not consider return on the cost of land for true up of the Second Control Period and Pre-COD Period.

4.16.8 To consider O&M expenses and their allocation as suggested by the study on efficient O&M expenses for TRV (summary of the Study is provided in Annexure 2 and the study is attached as Appendix 2) and as detailed in para 4.9.20 (Table 44) for true up of Second Control Period and Pre-COD Period.

4.16.9 To consider Non-aeronautical Revenue as detailed in para 4.11.10 (Table 50) for true up of the Second Control Period and Pre-COD Period.

4.16.10 To consider Aeronautical Revenue as detailed in para 4.12.7 (Table 54) for true up of the Second Control Period and Pre-COD Period.

4.16.11 To consider Aeronautical Tax as detailed in para 4.13.5 (Table 57) for true up of the Second Control Period and Pre-COD Period.

4.16.12 To consider the present value of under-recovery of Rs. 789.29 crores (as on 31st March 2023) for true up of AAI for the Second Control Period and Pre-COD period as per Table 58 and readjust the same in the ARR for the Third Control Period.

5 TRUE UP OF TKIAL FOR THE POST COD PERIOD FROM COD TILL 31st MARCH 2022

5.1 Background

5.1.1 AAI entered into a Concession Agreement dated 19th January 2021, with TRV (Kerala) International Airport Limited (TKIAL, the 'Concessionaire') to operate, manage and develop TRV, Thiruvananthapuram for a period of 50 years from the COD, i.e., 14th October 2021.

5.1.2 TKIAL, on 15th April 2022, sought clarification from the Authority regarding the control period for TRV. The Authority vide its Public Notice No. 05/2022-23 dated 20th June 2022 decided the following:

i. *"To shift the Control Period for Trivandrum Airport from 01.04.2021-31.03.2026 to 01.04.2022-31.03.2027. The periodicity of the Control Period will be five years only.*
ii. *To consider the true up for 01.04.2021 to 31.03.2022 at the time of determination of tariff for the Third Control Period as per AERA policy."*

5.1.3 Pursuant to the above Concession Agreement and Public Notice, TKIAL has submitted True up workings for the period from COD up to 31st March 2022.

5.1.4 The true-up workings submitted by TKIAL cover the following building blocks:

i. Regulatory Asset Base
ii. Aeronautical Depreciation
iii. Fair Rate of Return
iv. Aeronautical Operation and Maintenance Expenses
v. Non-aeronautical Revenue
vi. Aeronautical Taxes

5.1.5 The Authority has examined TKIAL's true-up submission in detail and has performed the following analysis:

i. Recorded Airport Operator's submissions for True-up under different Regulatory building blocks.
ii. Provided the Authority's examination and proposals regarding the True-up calculation of each regulatory block of TKIAL.

5.2 TKIAL's submission for true-up of the post-COD period from COD till 31st March 2022

5.2.1 TKIAL has made the following submission for the true-up of the post-COD period from COD till 31st March 2022.

Table 62: True-up submitted by TKIAL from COD till 31st March 2022

(Rs. in crores)

Particulars	Ref.	Amount
Opening RAB as on COD	A	486.26
Closing RAB as on 31st March 2022	B	442.02
Average RAB	C = (A+B) ÷ 2	464.14
FRoR return @14% on Average RAB*	D = C*14%	30.09
Operating expenses	E	67.38
Expenses pertaining to pre-COD period incurred to achieve successful transition of operation and management of Airport from AAI to PPP	F	9.02
Depreciation	G	48.71
Taxes	H	-
30% of Non – Aero revenues	I	4.45
ARR	**J = D+E+F+G+H-I**	**150.74**

Particulars	Ref.	Amount
Actual Aero Revenues earned	K	71.15
True-up	**L = J-K**	**79.59**
Present Value (PV) of True-up @14% as on 31st March 2022	**M**	**84.57**

**Return on Average RAB is calculated for 169 days*

5.3 Authority's examination of true-up submitted by TKIAL for the post-COD period

5.4 True up of Capital Expenditure (CAPEX)

5.4.1 The Authority proposes to consider the true-up submission made by AAI up to 13th October 2021 as the basis for determining the value of assets as on COD for TKIAL.

5.4.2 Based on the adjusted RAB of AAI for the Pre-COD period, the Authority has derived the adjusted RAB of TKIAL as on COD at Rs. 483.77 crores (refer Table 30).

5.4.3 The Authority has noted that according to FAR, TKIAL's capital additions in the post-COD period amounted to Rs. 19.51 crores. This includes an amount of Rs. 9.02 crores relating to the Airport Concession Rights and a notional lease asset (an adjustment under IND AS for the right of use asset – Building Leasehold) worth Rs. 6.16 crores. However, TKIAL has not considered these amounts as part of the Regulated Asset Base (RAB). The remaining Rs. 4.33 crores consist of assets capitalized by TKIAL post-COD as given in the table below.

Table 63: Projects included in RAB by TKIAL from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount
Computer Hardware	3.09
Office Equipment	1.04
Plant & Machinery	0.08
Furniture & Fixture	0.12
Total	**4.33**

<u>Reclassification of assets of TKIAL</u>

5.4.4 The Authority has conducted an independent study on the allocation of assets for the period from FY 2016-17 till FY 2021-22 and has used the outcome of the study to true up the RAB for the post-COD period, i.e., from COD till 31st March 2022, for TKIAL.

5.4.5 The Authority has considered the adjusted RAB of TKIAL as on COD (i.e., Rs. 483.77 crores), capital additions and corresponding depreciation based on the results of the Asset Allocation report (refer Annexure 1 for the Summary of the report and Appendix 1 for the detailed report on Study on Allocation of Assets).

5.4.6 The asset allocation study reviewed the various asset categories and developed a basis for the segregation of various assets into Aeronautical, Non-aeronautical and Common assets. Based on the same, the Authority has reclassified some portion of assets submitted by TKIAL for true-up of the period from COD till 31st March 2022 which has been detailed hereunder:

Table 64: Additional items included in the RAB by TKIAL from COD till 31st March 2022

(Rs. in crores)

Category	Asset Sub-Category / Description	Reason for Reclassification	Asset classification as per		Impact
			TKIAL	Study	
IT equipment	Global Navigation Satellite System (GNSS) System, IT infrastructure, network	It is used for the terminal building as a whole.	Aeronautical	Common (TBLR)	-0.20

Category	Asset Sub-Category / Description	Reason for Reclassification	Asset classification as per		Impact
			TKIAL	Study	
	& security server & storage, workstations, Multiprotocol Label Switching (MPLS) links & connectivity				
	Laptops, desktops, video controllers, tec.	It is used by the employees of TKIAL, thus classified as common and allocated based on EHCR	Aeronautical	Common (EHCR)	-0.02
	EPOS Implementation	Implementation of billing software which is used for retail shops within the airport.	Aeronautical	Non-Aeronautical	-0.10
Furniture & fixtures	Chairs, office table, sofa, cabinet, wastebin etc.	It is used by the employees of TKIAL, thus classified as common and allocated based on EHCR	Aeronautical	Common (EHCR)	-0.00
	Que management system	-	Aeronautical	Aeronautical	-
Office equipment	Safety related equipment & accessories, CCTV	-	Aeronautical	Aeronautical	-
	Display, projector, fingerprint enrollment unit, IP & voice over phone	It is used by the employees of TKIAL, thus classified as common and allocated based on Employee Head Count Ratio	Aeronautical	Common (EHCR)	-0.01
Plant and Machinery	Measuring wheel, speed gun, alcohol breath analyzer, handheld metal detector	-	Aeronautical	Aeronautical	-
	Bush, cutter, drive lever shaft	Used for both aero and non-aeronautic activities. Thus, classified as common	Aeronautical	Common (TBLR)	-0.00
Total Impact					**-0.33**

5.4.7 Based on the above adjustments the Authority has derived the aeronautical capital additions for post-COD period as Rs. 4 crores as against Rs. 4.33 crores submitted by TKIAL.

5.4.8 The Authority has also noted that in addition to the Capital Addition of Rs. 4.33 crores, TKIAL has also proposed financing allowance of Rs. 0.14 crores on the average WIP in FY 2021-22 (post-COD). The Authority proposes to exclude the financing allowance during computation of RAB for true-up of post-COD period due to reasons given in para 4.5.16 a) of this Consultation Paper.

5.5 True up of Depreciation

5.5.1 For the purpose of true up submission, TKIAL has calculated depreciation for the period from COD up to 31st March 2022 on Opening RAB (Initial RAB) based on their determination of remaining useful life of assets (calculated from the date of capitalization of assets provided by AAI to TKIAL). For the capital additions made from COD till 31st March 2022, the assets have been depreciated based on the useful life prescribed under Order No. 35/ 2017-18 dated 12th January 2018 issued by the Authority except for Computer Hardware and Plant & Machinery which the Authority proposes to change as per Order No 35/2017-18 dated 12th January 2018.

5.5.2 The Authority has proposed to consider the remaining balance useful life of AAI assets as on COD i.e., 14th October 2021 for the Opening RAB and depreciate the same for the period from COD to 31st March 2022.

5.5.3 Depreciation has not been computed on certain assets such as Right of Use assets (Capitalization of Lease costs) as the same is excluded from the RAB.

5.5.4 Accordingly, the depreciation of Rs. 48.71 crores on Aeronautical assets as submitted by TKIAL has been revised by the Authority (post reclassification and other adjustments) to Rs. 29.83 crores, thereby resulting in a reduction in depreciation by Rs. 18.88 crores.

5.5.5 The Average RAB and Depreciation determined by the Authority for the period from COD till 31st March 2022, post reclassifications and other adjustments are as follows:

Table 65: Average RAB considered by the Authority for true up from COD till 31st March 2022

(Rs. in crores)

Particulars	Ref.	Amount
Opening RAB (A)	Table 30	483.77
Addition (B)	Para 5.4.7	4.00
Financing Allowance (C)	Para 5.4.8	-
Depreciation (D)	Para 5.5.4	29.83
Closing RAB (E = A + B + C – D)		**457.94**
Average RAB (F = (A + E) ÷ 2)		**470.86**

5.5.6 Based on its analysis, the Authority proposes to consider RAB and depreciation as per Table 65 for true-up of the period from COD till 31st March 2022.

5.6 True up of Fair Rate of Return (FRoR)

<u>TKIAL's submission for true-up of Fair Rate of Return</u>

5.6.1 TKIAL has submitted FRoR as 14.00% for true-up of the period from COD till 31st March 2022.

<u>Authority's examination and proposal regarding true up of FRoR for the post-COD Period</u>

5.6.2 The Authority notes that TKIAL, in its MYTP, has assumed an FRoR of 14% for the period from COD till 31st March 2022. However, the Authority proposes to consider the FRoR for true up of the post COD period till 31st March 2022 as 13.97% in line with that proposed for true up of the Second Control Period and the Pre-COD Period for AAI taking into account that the Airport Operator had only operated the Airport for five months during the post COD Period. The Authority proposes to consider the FRoR for the Airport Operator in line with other PPP airports from the next Control Period.

5.6.3 It is to be noted that TKIAL operated the Airport in FY 2021-22 for the period from COD till 31st March 2022. Therefore, TKIAL is eligible to claim a return on RAB only for the period from COD till 31st March 2022. Hence, for FY 2021-22, the Authority proposes to pro-rate the FRoR for the number of days during which TKIAL operated the Airport, i.e. 169 days. The pro-rated FRoR for FY 2021-22 has been computed as follows:

$$FRoR_{post\ COD} = FRoR \times \frac{n}{365}$$

where,

FRoR is the fair rate of return for the entire FY 2021-22,
FRoR post COD is the pro-rated FRoR for the period from COD till 31st March 2022, and
n is the number of days in operation in FY 2021-22.

5.6.4 Based on the above approach the pro-rated FRoR for FY 2021-22 has been computed as follows:

Table 66: Pro-rated FRoR for FY 2021-22 proposed to be considered by the Authority for true up from COD till 31st March 2022

Particulars	Ref.	Value
FRoR for FY 2021-22	A	13.97%
Number of days of operation in FY 2021-22	B	169
Pro-rated FRoR for the period from COD till 31st March 2022	**C = A * B ÷ 365**	**6.47%**

5.6.5 The Authority proposes to consider FRoR as 6.47% for the true-up of the period from COD till 31st March 2022, as shown in Table 66.

5.7 True up of Operation and Maintenance (O&M) expenses

<u>TKIAL's submission for true-up of Operation and Maintenance expenses</u>

5.7.1 TKIAL has submitted the aeronautical O&M expenses for true-up of the period from COD till 31st March 2022 based on actuals incurred during the period.

5.7.2 The component-wise break up of Aeronautical Operation and Maintenance expenses submitted by TKIAL for the period from COD till 31st March 2022 is as per the table below.

Table 67: Aeronautical O&M expenses submitted by TKIAL for the period from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount	% to Total
Manpower expenses - AAI employees	28.08	42.68%
Manpower expenses - Adani employees	4.20	6.38%
Utility expenses	5.60	8.51%
IT expenses	0.88	1.34%
Security expenses	3.76	5.72%
Corporate Support Service expenses	7.01	10.66%
Administrative Expenses - Collection Charges on UDF	0.11	0.17%
Administrative Expenses - Others	2.93	4.45%

Particulars	Amount	% to Total
Insurance	0.76	1.16%
R&M	5.96	9.06%
Other operating expenses	4.46	6.78%
Bank and finance charges	0.37	0.56%
Independent Engineer's Fees	1.67	2.54%
Total	**65.79**	**100%**

Authority's examination and proposal for Operating Expenses for the post-COD

5.7.3 The Authority has commissioned an independent study through the Consultant appointed by AERA on efficient Operation and Maintenance expenses for TRV for the Second Control Period and FY 2021-22 (Pre and Post COD of AAI and TKIAL respectively) (summary of the study is given in Annexure 2 and the Study is attached as Appendix 2) and has used the outcome of the said study to true up the O&M expenses for the period from COD till 31st March 2022 for TKIAL.

5.7.4 As per TKIAL's MYTP submission, it was noted that no specific ratio was used for the allocation of the O&M expenses. Instead, TKIAL has considered all expenses as 100% without categorizing the expenses into aeronautical and non-aeronautical expenses.

5.7.5 The study commissioned has undertaken evaluation of each expense head on a case-by-case basis. Based on the same, appropriate re-classification and re-allocation of the expenses were undertaken (refer to Study on Opex attached as Appendix 2).

5.7.6 Based on outcomes of the Study on Opex for the Second Control Period and Pre-COD period, the Authority has made the following observations regarding TKIAL's submission of O&M expenses under various heads for the Second Control Period and Pre-COD period in the following sequence:

i. Assessment of Allocation Ratios
ii. Assessment of O&M expenses and their allocation

Assessment of Allocation Ratios

Terminal Building Ratio (TBLR)

5.7.7 It was observed that TKIAL has classified the entire area of the terminal building as Aeronautical. Upon enquiry, TKIAL stated that this was done in accordance with the AERA Act. It was also noted that there has been no increase in the area of the terminal building from the date of Commercial Operations (COD) until 31st March 2022.

5.7.8 TKIAL has classified the entire area of the terminal building as aeronautical but has not provided proper justification for the same. Considering that there has been no expansion or increase in the area of the terminal building, the Authority proposes to consider the ratio 90%:10% (Aeronautical: Non-aeronautical) as decided in Order No. 03/2017-18 dated 2nd June 2017 (refer para 4.9.6 for detail) for the expenses incurred by TKIAL in Post COD period and for the Third Control Period, which is in line with the recommendation of the IMG norms and in line with the ratio considered by AERA for other similar airports.

Gross Block Ratio (GBR)

5.7.9 To determine the allocation of expenses that apply to the entire airport area, the Authority proposes to utilize the Gross Block ratio for allocation into Aero, Non-Aero components. This ratio is calculated by dividing the aeronautical gross block by the total gross block. Based on the outcome of the independent study on the allocation of assets, the ratio of aeronautical assets to total assets was determined as 99.38% for the post COD period till 31st March 2022.

Employee Head Count Ratio (EHCR)

5.7.10 It is observed that TKIAL has categorized all employees, irrespective of their department, as aeronautical employees. However, the services rendered by these employees are both aeronautical and non-aeronautical services in nature.

5.7.11 Based on the details and clarifications provided by TKIAL, the Study has examined employee allocation of TKIAL and made certain adjustments and reclassifications based on which the revised EHCR is as given below.

Table 68: Revised Employee Head Count Ratio for the period from COD till 31st March 2022

Particulars	Aeronautical (%)	Non-Aeronautical (%)
AAI employees	98.56%	1.44%
TKIAL employees	91.67%	8.33%
Total employees	98.19%	1.81%

5.7.12 Based on the above analysis of ratios, the Authority proposes to consider the following revised ratios for allocation of expenses of TRV for the post-COD Period.

Table 69: Allocation Ratios proposed by the Authority for the period from COD till 31st March 2022

Particulars	Ratio
Employee Head Count Ratio - AAI employees	98.56%:1.44%
Employee Head Count Ratio - TKIAL employees	91.67%:8.33%
Employee Head Count Ratio - Total employees	98.19%:1.81%
Terminal Building Ratio	90.00%:10.00%
Gross Block Ratio	99.38%:0.62%

Assessment of O&M expenses and their allocation

5.7.13 Upon review and analysis of the O&M expenses submitted by TKIAL for the post-COD Period, the Authority notes the following:

- **Manpower Expenses – AAI Employees**: The Authority notes that TKIAL has considered the Manpower expenses as 100% Aeronautical. However, the Authority on examination of the relevant clauses of the Concession Agreement, has considered the employee expenses of AAI employees up to the 'Deemed Deputation Period' as Common, since the employee expenses of AAI pertain to both Aeronautical and Non-aeronautical activities. Accordingly, the Authority proposes to reallocate the employee expenses of AAI in the ratio of Employee Head Count of AAI employees [98.56%:1.44%] (refer Table 71 of the Study on Opex).

  Impact: The reallocation results in a reduction of aeronautical manpower expenses by Rs. 0.40 crores for the period from COD till 31st March 2022.

- **Manpower Expenses – TKIAL**: The Authority notes that the TKIAL had considered all 25 of its employees as being 100% Aeronautical. On a detailed examination, it was understood that out of 25 employees, only 23 employees were involved in aeronautical activities, the remaining 2 were involved in non-aeronautical activities. Accordingly, the Authority proposes to reallocate the Manpower expenses in the revised Employee Head Count ratio [91.67%:8.33%] derived by the Authority (refer Table 71 of the Study on Opex).

Impact: The reallocation resulted in a reduction of Manpower expenses by Rs. 0.35 crores for the period from COD till 31st March 2022.

- **Utility Expenses**: Utility expenses have been considered by TKIAL as 100% Aeronautical. Considering that the power and fuel costs were net of recoveries from Concessionaires, the Authority proposes to consider the same as 100% Aeronautical. The Authority also noted that the water charge amounting to Rs. 0.08 crores were included in the administrative expenses by TKIAL. The Authority proposes to consider the same under utility expense and to reallocate the water charge based on the Gross Block ratio [99.38%:0.62%] (refer Table 68 of the Study on Opex).

  Impact: The above recategorization and reallocation has resulted in an increase in Utility expenses by Rs. 0.08 crores for the period from COD till 31st March 2022.

- **Security Expenses**: Security expenses include contractual manpower deployed for Kerbside management, traffic marshalling, traffic management, landside security, patrolling, Billing & accounting for National Aviation Security Fee Trust (NASFT), Co-ordination with CISF/Policy, Emergency Response etc. and security admin expenses include R&M expenses of security equipment and Annual Maintenance Contracts (AMCs) of Mechanical Equipment, Bosch Closed Circuit Television (CCTV), XBIS, etc. TKIAL has considered the Security expenses as being 100% Aeronautical. However, the Authority notes that expenses amounting to Rs. 2.04 crores related to the repairs and maintenance of security equipment are included in Security Expenses and hence proposes to recategorize the same to "Repairs and Maintenance" expenses (refer para 4.4.15 of the Study on Opex). The Authority also proposes to reallocate the Security expenses in the Gross Block Ratio [99.38%:0.62%] (refer Table 68 of the Study on Opex).

  Impact: The recategorization and reallocation of the Security expenses has resulted in a decrease of Rs. 2.05 crores for the period from COD till 31st Mar 2022.

- **Corporate Support Service (CSS) Expenses**: The Corporate Support Service expenses have been considered by TKIAL as 100% Aeronautical. However, the Authority notes that the major component of these costs consists of Salaries and administrative costs that are recovered by AEL & AAHL through appropriate allocation methods. It is noted that the in-house legal team cost of Rs. 0.04 crore is included in the Corporate Cost allocation for Post COD Period. However, the employee expenses towards the in-house legal team of TKIAL have already been allowed under employee expense and therefore, providing additional expenses towards the legal department at the corporate level would result in redundancy. The Authority, therefore, proposes to exclude the in-house legal team cost and to reallocate the resulting CSS expenses in the ratio of TKIAL Employee Headcount ratio [91.67%:8.33%] as determined by the Authority.

  Impact: The adjustment to and reallocation of CSS expense results in a decrease of Rs. 0.62 crores for the period from COD till 31st Mar 2022 (refer Table 82 of the Study on Opex).

- **Administrative & General (A&G) Expenses**: The Authority observes that the administrative expenses include professional and consultancy charges, travelling and conveyance, printing & stationery and other misc. expenses, water charges, audit fees, IT expenses, insurance and bank and finance charges, and these expenses were considered as 100% Aeronautical. The Authority proposes to reallocate the administrative expenses on the basis of Gross Block ratio [99.38%:0.62%] / Employee Head Count Ratio (AAI & TKIAL) [98.19%:1:81%] depending upon the nature of expenses.

Impact: The impact of the reallocation results in a decrease in the administrative expenses of Rs. 0.12 crores for the period from COD till 31st March 2022 (refer Table 84 of the Study on Opex).

- **Repairs & Maintenance Expenses**: The Authority observes that repair & maintenance includes the maintenance of various assets, including Constant Current Regulators, Airfield Lighting System & Power Supply System, Electrical & Mechanical Installations of Terminal Buildings, Central Air Conditioning System of Terminal Buildings, Baggage Conveyors, Water Coolers/Water Purifiers, Water Treatment Plant, AC Plant, Civil Works at Terminal Buildings/Ancillary Buildings, Civil Works at CISF Barracks/Admin Building, Painting of Runway, and Apron Marking among others and that the expenses were considered as 100% Aeronautical. However, the Authority proposes to consider certain maintenance expenses such as Constant Current Regulators, Airfield lighting system & Power supply system, Painting of runway and Apron marking, Security machines i.e., XBIS / ETD, Baggage Conveyors, etc. as Aeronautical and the remaining expenses be reallocated on the basis of Gross Block Ratio [99.38%:0.62%] / Terminal Building Ratio [90.00%:10.00%] depending upon the nature of expenses. The Authority also proposes to consider the R&M expenses related to security equipment amounting to Rs. 2.04 crores under the "Repairs and Maintenance" (R&M) expenses (refer para 4.4.33 of the Study on Opex).
  Impact: The impact of the recategorization and reallocation has resulted in an increase in Repairs and Maintenance expenses by Rs. 1.93 crores for the period from COD till 31st March 2022 (refer Table 86 of the Study on Opex).

- **Other Operating Expenses**: The Authority notes that the other Operating expenses include housekeeping, deployment of medical staff, outsourced manpower for trolley and data entry operations, machines on rent hired for airside operations etc. and that TKIAL had considered all expenses as 100% Aeronautical. However, the Authority proposes to reallocate the same in the Terminal Building ratio [90%:10%]/EHCR [98.19%:1.81%]/Aeronautical [100%] based on the nature of the expenses.
  Impact: The reallocation resulted in a reduction of Other Operating expenses by Rs. 0.41 crores for the period from COD till 31st March 2022 (refer Table 88 of the Study on Opex).

- **Collection Charges on UDF:** It is observed that the collection charges totaling Rs. 0.11 crores include the amount incurred towards payment to airlines for collection of UDF from the passengers. The collection charges have more or less remained consistent when compared to the period prior to COD. Thus, the collection charge on UDF of Rs. 0.11 crores incurred by TKIAL appears to be reasonable.

- **Independent Engineer Fees**: It is observed that TKIAL has included a cost of Rs. 1.67 crores in respect of fees payment to the Independent Engineer as part of the O&M expenses. It is to be noted that the independent engineer is appointed by AAI for a period of 3 years for a fee of Rs. 11.35 crores starting from 22nd October 2021. As per Clause 24 of the Concession Agreement, an Independent Engineer has to be appointed by AAI and remuneration shall be paid by AAI which in turn shall be reimbursed by TKIAL to AAI. Further, as per Clause 24.3.1 of the Concession Agreement, this cost has to be considered as a passthrough by the Regulator. Based on a comprehensive review of the relevant clauses in the Concession Agreement, it is noted that the remuneration of the Independent Engineer must be treated as a pass-through expense by AERA. Consequently, the study considers the fee of Rs. 1.67 crores as an O&M expense for the Post COD period.

5.7.14 Further, the Authority observed that TKIAL has considered interest on working capital and finance charges as a separate line item at the time of true up of ARR. The Authority notes that TKIAL has calculated working capital interest based on the actual revenue and payment of expenses. According to their calculations, the need for working capital interest amounting to Rs. 1.59 crores arose during the post-COD period.

The Authority observes that the expenses related to the post-COD period have been actualized, and there is no evidence of working capital interest being incurred in the books of TRV. As a result, including the working capital interest in the true-up calculation appears unreasonable. Therefore, the Authority proposes to exclude the working capital interest from the true-up process.

The Authority also notes that TKIAL has submitted Finance charges to the extent of Rs. 0.37 crores based on actuals and has considered the same as 100% aeronautical for the post-COD period. The Authority proposes to accept this amount of Rs. 0.37 crores but allocate the same into Aeronautical and Non-Aeronautical based on the Gross Block ratio (refer Table 69) for the period.

5.7.15 The Authority notes that TKIAL has submitted pre-COD expenses amounting to Rs. 9.02 crores for true-up of the post-COD period. This expense included Rs. 1.43 crores related to manpower cost including corporate cost allocation.

The Authority takes cognizance of the fact that AAI deputed its staff and management personnel to the Airport during the transition period, including prior to the COD to ensure that the relevant knowledge and experience of the operation and management of TRV is transferred to TKIAL. Therefore, the deputation of such staff is relevant towards the objective of smooth transition of the airport from AAI to AO, and fulfilment of the terms of the CA.

Furthermore, the Authority also notes that as per Clause 15.1.2 of the Concession Agreement, the Concessionaire is mandated to achieve COD within 180 days from the date of the Concession Agreement.

Based on the above factors, the Authority notes that AAI deputed its staff and management personnel to the Airport during the transition period, including prior to the COD and the cost of such personnel was paid by the Airport Operator. Additionally, Adani Group also deputed its own manpower from other group entities. The Authority has accordingly decided to consider salary expenses pertaining to such Adani Group entities for the period of six months prior to COD, i.e., from 14th April 2021 to 13th October 2021, for the purpose of tariff determination.

Based on the above considerations, the total costs pertaining to manpower cost prior to COD, as allowed for the purpose of true-up of TRV is as follows:

Table 70: Pre-COD expenses proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	Nature of Expenses	Period	Total	% Allowable	Proposed Pre-COD expenses
Project Cost for setup for Airport Business - Allocation by parent companies	Corporate Cost Allocation	May'21 to Oct'21	-*	0%	-
Pre-COD Payroll Cost	On roll employee cost	Aug'21 to Sep'21	0.50	100%	0.50
Total			**0.50**		**0.50**

**AO has not provided any details for the period May 2021 to October 2021*

The Authority proposes to consider only this manpower cost for true-up based on the following analysis.

- The Authority, after making a detailed study on the provisions of the Concession Agreement, decided that there is no provision in the Concession Agreement to include in the true up, the remaining costs incurred by TKIAL prior to COD.
- The Authority proposes that the bid expenses incurred prior to the date of Letter of Award of TKIAL, and expenses incurred between the date of Concession Agreement and COD (other than as specifically considered above), as submitted by TKIAL are not to be considered for tariff determination.

5.7.16 The impact on the Aeronautical O&M expenses of TKIAL on account of the proposed recategorization, reallocation and other adjustments of expenses is as follows:

Table 71: Impact of proposed adjustments to TKIAL's Aeronautical O&M expenses

(Rs. in crores)

Expense Category	Expense Sub-Category / Description	Expenses classification		Impact
		TKIAL	Study	
Manpower expenses	Payroll expenditure – AAI employees	Aeronautical (100%)	EHCR (98.56% : 1.44%)	0.40
	Payroll expenditure – TKIAL employees	Aeronautical (100%)	EHCR (91.67% : 8.33%)	0.35
A&G Expenses	Professional & Consultancy Fees	Aeronautical (100%)	Gross Block Ratio (99.38% : 0.62%)	0.01
	Travelling & Conveyance	Aeronautical (100%)	EHCR (98.19% : 1.81%)	0.002
	Printing, Stationery & Other Misc. Exp	Aeronautical (100%)	EHCR (98.19% : 1.81%)	0.01
	Water Charges	Aeronautical (100%)	Considered in Utilities	0.08
	Audit Fees	Aeronautical (100%)	Gross Block Ratio (99.38% : 0.62%)	0.00
	IT expenses	Aeronautical (100%)	Gross Block Ratio (99.38% : 0.62%)	0.01
	Insurance	Aeronautical (100%)	Gross Block Ratio (99.38% : 0.62%)	0.005
	Bank Charges	Aeronautical (100%)	Gross Block Ratio (99.38% : 0.62%)	0.002
R&M Expenses	Consumption of Stores & Spares-Domestic	Aeronautical (100%)	Terminal Building Ratio (90% : 10%)	0.07
	Consumption of Operating Supplies-Domestic	Aeronautical (100%)	Terminal Building Ratio (90% : 10%)	0.004
	Repairs & Maintenance-Buildings	Aeronautical (100%)	Aeronautical (100%), Terminal Building Ratio (90% : 10%) & Gross Block Ratio (99.38% : 0.62%)	0.01
	Repairs & Maintenance-Plant & Machinery	Aeronautical (100%)	Aeronautical (100%) & Terminal Building Ratio (90% : 10%)	-2.03
	Electric works	Aeronautical (100%)	Aeronautical (100%) & Terminal Building Ratio (90% : 10%)	0.02
	Repairs & Maintenance – Others	Aeronautical (100%)	Aeronautical (100%) & Terminal Building Ratio (90% : 10%)	0.001

Expense Category	Expense Sub-Category / Description	Expenses classification		Impact
		TKIAL	Study	
CSS Expenses	Corporate Cost Allocation	Aeronautical (100%)	EHCR (91.67% : 8.33%)	0.62
Utility Expenses	Utility expenses (power & Fuel)	Aeronautical (100%)	Terminal Building Ratio (90% : 10%)	-
	Water Charges	Aeronautical (100%)	Gross Block Ratio (99.38% : 0.62%)	-0.08
Security Expenses	Security Agency charges	Aeronautical (100%)	Gross Block Ratio (99.38% : 0.62%)	0.01
	Security Equipment	Aeronautical (100%)		2.04
Other outflow expenses	Factory & Office Expenses	Aeronautical (100%)	EHCR (98.19% : 1.81%)	0.004
	Contractual Manpower-Operations	Aeronautical (100%)	Terminal Building Ratio (90% : 10%)	0.10
	Equipment Rentals-Operations	Aeronautical (100%)	Aeronautical (100%)	-
	House Keeping Expenses	Aeronautical (100%)	Terminal Building Ratio (90% : 10%)	0.28
	Vehicle Hiring Charges	Aeronautical (100%)	Terminal Building Ratio (90% : 10%)	0.02
Independent Engineer Fee		Aeronautical (100%)	Aeronautical (100%)	-
Total				**1.93**

5.7.17 Based on the above analysis, the Authority has derived the O&M expenses that it proposes to consider for True up for TKIAL from COD till 31st March 2022 and the same is detailed below:

Table 72: Adjusted Aeronautical O&M expenses proposed to be considered by the Authority for True up from COD till 31st March 2022

(Rs. in crores)

Heads	Sub Heads	Post COD
Employee Benefit Expenses	Manpower expenses - AAI employees	27.68
	Manpower expenses - Adani employees	3.85
Utility & Outsourcing Expenses	Utility expenses	5.68
	Security expenses	1.71
CSS Expenses	Corporate Cost Allocation	6.39
A&G Expenses	Independent Engineer Fee	1.67
	Administrative Expenses – Others	4.81
R&M Expenses	R&M	7.89
Other Outflows	Collection Charges on UDF	0.11
	Others	4.05
Finance Charges	Finance Charges	0.37
Pre-COD Expenses	Pre-COD Expenses	0.50
Total		**64.71**

5.7.18 The Authority proposes to consider O&M expenses of Rs. 64.71 crores for true-up of the period from COD till 31st March 2022, as shown in Table 72.

5.8 True up of Non-Aeronautical Revenue

5.8.1 TKIAL has submitted the following components of NAR for the period from COD till 31st March 2022.

Table 73: NAR submitted by TKIAL for True up from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount
Car parking	0.13
Building rent	2.66
Other Income	5.38
Master Concessionaire	6.67
Total NAR	**14.84**

5.8.2 The Authority notes that TKIAL has concessioned the non-aeronautical activities to Adani Airport Holdings Limited (AAHL) for a period of 25 years effective from December 2021. In consideration for the concession, AAHL is expected to pay TKIAL, higher of Minimum Guarantee of Rs. 20 crores or Revenue Share on the gross revenue for the year.

5.8.3 TKIAL, in an email dated 4th August 2023, has subsequently shared the actual NAR and the entries in the Book of Accounts for the period from COD till 31st March 2022. The Authority notes that the actual NAR for the period was Rs. 14.65 crores as against Rs. 14.84 crores in the MYTP submission and therefore proposes to consider the same for the post-COD period.

5.8.4 The Authority, on verification of the NAR submitted with the Book of Accounts entries of TKIAL, notes that Rs. 0.19 crores relate to Notional Income on Security Deposit which is an IND AS adjustment entry and Rs. 1.22 crores relate to revenue earned from agencies involved in aeronautical activities as given below.

Table 74: Breakup of revenue earned from agencies involved in aeronautical activities for the period from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount
Air Arabia PJSC	0.01
Air Asia	-
Air India Express Ltd	-
Air India Ltd	0.11
AIX Connect Pvt Ltd	-
Alliance Air Aviation Ltd	-
Emirates	0.05
Etihad Airways	0.01
Go Airlines India Ltd	-
Gulf Air	0.01
Interglobe Aviation Ltd	0.09
Island Aviation Services Ltd	0.01
Kuwait Airways Company	0.02
Malindo Airways	-
Oman Air SAOC	0.02
Qatar Airways	0.02
Spice Jet Ltd	0.02
Srilankan Airlines Ltd	0.01
Tata Sia Airlines Ltd	0.02
Others including Cargo, Ground Handling and Fuel Service Providers	0.83
Total	**1.22**

5.8.5 The Authority is of the view that space rentals from agencies providing aeronautical services should be treated as aeronautical revenue. The authority, therefore, proposes to exclude both the Notional Income on Security

Deposit and Space Rentals from agencies providing aeronautical services from the NAR for the post-COD period.

5.8.6 The Authority notes that TKIAL has received Rs. 6.67 crores as revenue share from the Master Concessionaire and proposes to consider the same for the period from COD till 31st March 2022.

5.8.7 Based on the above discussion, the adjustments to the actual Non-Aeronautical Revenue for the period from COD till 31st March 2022 is as given below:

Table 75: Adjustment to Revenue from Non-Aeronautical Services considered by the Authority for True up from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount
Actual Non-Aeronautical Revenue as submitted by TKIAL (A)	14.65
Adjustment:	
Revenue from agencies providing aeronautical services including airlines (B)	1.22
Notional Income on Security Deposit (C)	0.19
Non-Aeronautical Revenue as per the Authority (A-B-C)	**13.24**

5.8.8 The revised NAR for the post-COD period as proposed by the Authority is as given in table below.

Table 76: NAR proposed by the Authority for True up from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount
Car parking	0.13
Building rent	1.53
Other Income	4.91
Master Concessionaire	6.67
Total NAR	**13.24**

5.9 True up of Aeronautical Revenue

5.9.1 TKIAL through its MYTP submission has submitted Aeronautical Revenue of Rs. 70.67 crores for the period from COD till 31st March 2022. Subsequently, TKIAL has shared vide email dated 4th August 2023 the actual Aeronautical Revenue for the period from COD till 31st March 2022 as Rs. 71.15 crores as shown in the table below.

Table 77: Actual Aeronautical Revenue submitted by TKIAL for the period from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount
Landing revenue	12.92
Parking & housing revenue	0.36
Ground handling revenue	3.24
Passenger UDF	53.03
CUTE and BRS revenue	1.13
Land Lease Revenue	0.48
Total Aero revenue	**71.15**

5.9.2 The Authority proposes to consider TKIAL's submission of Aeronautical revenue for the post-COD period as given in Table 77. The Authority also proposes to include the Aeronautical revenue of Rs. 1.22 crores that was submitted as part of the NAR by TKIAL but was not included as part of NAR proposed by the Authority (refer para 5.8.4).

5.9.3 The Authority proposes to consider revised Aeronautical Revenue for the period from COD till 31st March 2022 as per table given below.

Table 78: Aeronautical Revenue as proposed by the Authority for True-up from COD till 31st March 2022

(Rs. in crores)

Particulars	Amount
Landing revenue	12.92
Parking & housing revenue	0.36
Ground handling revenue	3.24
Passenger UDF	53.03
CUTE and BRS revenue	1.13
Land Lease Revenue*	1.70
Total Aero revenue	**72.37**

**Includes Rs. 1.22 crores reclassified from non-aeronautical revenue to aeronautical revenue.*

5.10 True up of Taxation

5.10.1 TKIAL has submitted 'Nil' tax for the period from COD till 31st March 2022. The Authority notes that the actual Aeronautical revenue earned by TKIAL for the above approximate 6-month period is less than the Operating expenses and Depreciation incurred by TKIAL, thereby resulting in losses and hence 'Nil' Aeronautical Taxation. The same is presented in the table below.

Table 79: Taxation proposed to be considered by the Authority for true up from COD till 31st March 2022

(Rs. in crores)

Particulars	Ref.	Amount
Aero Revenues (refer Table 78)	A	72.37
Aero O&M Expenses (refer Table 72)	B	64.71
Interest Expense	C	11.31
Depreciation as per IT Act	D	29.83
Aero Profit Before Tax	**E=A-(B+C+D)**	**-33.48**
Previous loss adjustment	F	-
Taxable Profit	**G=Max. of 0 or (E-F)**	**-**
Tax rate (%)	H	25.17%
Aeronautical Tax	**I=G*H**	-
Opening Losses	J	-
Current period (loss)/profit	K=E	-33.48
Closing Losses	L=J+K	-33.48

5.11 True up of Aggregate Revenue Requirement (ARR)

5.11.1 Based on its analysis of the various building blocks, the Authority has determined the ARR and Shortfall (Under recovery) for True up of the Pre-COD period and the same is presented in the table below:

Table 80: ARR proposed to be considered by the Authority for true up from COD till 31st March 2022

(Rs. in crores)

Particulars	Ref.	Amount
Average RAB (A)	Table 65	470.86
FRoR (B)	Table 66	6.47%
Return on Avg. RAB (C = A*B)		**30.46**
Operating expenses* (D)	Table 72	64.71
Depreciation (E)	Para 5.5.4	29.83
Tax (F)	Table 79	-

Particulars	Ref.	Amount
ARR (G = Sum[C:F])		**125.00**
NAR (H)	Table 76	13.24
30% of NAR (I = 30%*H)		3.97
Net ARR as on 31st March 2022 (J = G – I)		**121.03**
Actual Aeronautical Revenue (K)	Table 78	72.37
(Over)/Under Recovery as on 31st March 2022 (L = J – K)		**48.66**
Compounding Rate (M)		12.21%
Compounding Factor (N = [1 + M] ^ t)		1.12
PV of Under Recovery as on 31st March 2023 (O = L*N)		**54.60**

**Operating expenses consist of Rs. 63.84 crores of Aeronautical Operating expenses incurred for the period from COD till 31st March 2022, Rs. 0.50 crores of pre-COD expenses (refer para 5.7.15) and Rs. 0.37 crores of Aeronautical Finance Charges (refer para 5.7.14)*

5.11.2 The Authority proposes to consider the under-recovery of Rs. 54.60 crores for True-up of TKIAL for the period from COD up to 31st March 2022 and consider the same in the ARR computation of TRV, Thiruvananthapuram for the Third Control Period.

5.11.3 The ARR proposed by the Authority is Rs. 121.03 crores as against Rs. 150.74 crores submitted by TKIAL. The variance is on account of the following:

- Increase in the Return on RAB derived by the Authority due to re-classification of assets and change in FRoR – Impact of Rs. 0.38 crores
- Reduction in Depreciation derived by the Authority due to re-classification of assets and revision in useful life as applicable – Impact of Rs. 18.88 crores
- Rationalization of O&M expenses claimed by TKIAL based on O&M Study report – Impact of Rs. 11.69 crores.
- Increase in ARR due to reduction of Non-Aeronautical Revenue – Rs. 0.48 crores

5.12 Authority's proposals regarding True up for the period from COD till 31st March 2022

Based on the material before it and its examination, the Authority proposes the following with respect to True up of the period from COD till 31st March 2022 for TRV, Thiruvananthapuram:

5.12.1 To consider RAB and depreciation for the period from COD till 31st March 2022 as per Table 65

5.12.2 To consider FRoR for the period from COD till 31st March 2022 as per Table 66.

5.12.3 To consider O&M expenses for the period from COD till 31st March 2022 as per Table 72.

5.12.4 To consider Non-Aeronautical Revenue for the period from COD till 31st March 2022 as per Table 76.

5.12.5 To consider Aeronautical revenue for the period from COD till 31st March 2022 as per Table 78

5.12.6 To consider under recovery of Rs. 54.60 crores for True-up of TKIAL as per Table 80 for the period from COD till 31st March 2022 and readjust the same in the ARR for the Third Control Period.

EVALUATION OF MYTP FOR THE THIRD CONTROL PERIOD

6 TRAFFIC FOR THE THIRD CONTROL PERIOD

The historical passenger traffic, ATM and cargo traffic at Thiruvananthapuram International Airport are given in the table below.

Table 81: Historical passenger traffic, ATM and cargo traffic at TRV

Year	Passengers (Nos.)			ATM (Nos.)			Cargo (MT)		
	Domestic	Int'l	Total	Domestic	Int'l	Total	Domestic	Int'l	Total
FY 10	637,808	1,695,912	2,333,720	10,166	15,185	25,351	1,442	31,708	33,150
FY 11	684,061	1,842,824	2,526,885	8,213	16,656	24,869	1,540	37,795	39,335
FY 12	978,847	1,835,952	2,814,799	11,708	15,531	27,239	1,449	46,753	48,202
FY 13	988,552	1,850,469	2,839,021	10,642	14,161	24,803	1,490	37,963	39,453
FY 14	985,525	1,948,549	2,934,074	9,631	14,150	23,781	1,794	27,283	29,077
FY 15	1,080,993	2,093,025	3,174,018	8,916	14,803	23,719	1,166	28,731	29,897
FY 16	1,196,245	2,274,543	3,470,788	9,692	16,309	26,001	957	34,613	35,570
FY 17	1,571,767	2,309,742	3,881,509	12,473	16,644	29,117	1,508	26,942	28,450
FY 18	1,916,127	2,477,342	4,393,469	14,680	19,058	33,738	1,195	27,520	28,715
FY 19	1,904,908	2,529,551	4,434,459	14,452	18,641	33,093	1,506	23,661	25,167
FY 20	1,709,229	2,209,964	3,919,193	14,030	14,812	28,842	2,023	23,488	25,511
FY 21	476,559	458,876	935,435	5,111	4,202	9,313	1,048	13,751	14,799
FY 22	699,447	956,059	1,655,506	7,010	8,346	15,356	1,706	14,873	16,579

Note – TRV has achieved the highest passenger volume in FY 2018-19 while the highest ATM traffic was in FY 2017-18. The maximum cargo volumes managed at TRV airport were in FY 2011-12.

6.1 TKIAL's submissions regarding Traffic for the Third Control Period

6.1.1 TKIAL submission of passenger traffic, ATM and cargo traffic along with their expected annual growth rates assumed in its MYTP for Third Control Period are as given in the table below:

Table 82: TKIAL's submission of traffic at TRV for the Third Control Period

Year	Passenger			ATM			Cargo		
	Domestic	Int'l	Total	Domestic	Int'l	Total	Domestic	Int'l	Total
Traffic									
FY 23	1,544,108	1,912,523	3,456,631	12,275	12,967	25,242	1,686	20,474	22,160
FY 24	1,973,016	2,468,437	4,441,453	15,430	16,278	31,708	2,142	25,654	27,796
FY 25	2,252,173	2,878,675	5,130,848	17,570	18,934	36,504	2,568	30,323	32,891
FY 26	2,446,514	3,169,234	5,615,748	19,039	20,784	39,823	2,923	33,828	36,751
FY 27	2,647,049	3,388,367	6,035,416	20,551	22,134	42,685	3,307	36,635	39,942
Total	**10,862,860**	**13,817,236**	**24,680,095**	**84,865**	**91,097**	**1,75,962**	**12,626**	**146,914**	**159,540**
Growth rates									
FY 23*	120.76%	100.04%	108.80%	75.11%	55.37%	64.38%	-1.17%	37.66%	33.66%
FY 24	27.78%	29.07%	28.49%	25.70%	25.53%	25.62%	27.05%	25.30%	25.43%
FY 25	14.15%	16.62%	15.52%	13.87%	16.32%	15.13%	19.89%	18.20%	18.33%
FY 26	8.63%	10.09%	9.45%	8.36%	9.77%	9.09%	13.82%	11.56%	11.74%
FY 27	8.20%	6.91%	7.47%	7.94%	6.50%	7.19%	13.14%	8.30%	8.68%

**Growth rates are computed based on FY 2021-22 traffic*

6.1.2 TKIAL has also submitted that it expected to process certain cargo volumes out of the total volume at its own cargo facility. The following table summarizes the total cargo volumes proposed to be handled by TKIAL out of the total cargo traffic at TRV during TCP.

Table 83: Cargo volumes to be handled by TKIAL out of the total cargo traffic during the Third Control Period

Particulars (in MT)	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Domestic	1,000	2,000	2,000	2,046	2,315	**9,361**
International	-	4,500	6,000	23,680	25,645	**59,824**
Total by TKIAL (A)	**1,000**	**6,500**	**8,000**	**25,726**	**27,959**	**69,185**
Total cargo traffic at TRV (B)	22,160	27,796	32,891	36,751	39,942	**1,59,540**
TKIAL Market Share (A/B)	**4.51%**	**23.38%**	**24.32%**	**70.00%**	**70.00%**	

6.1.3 TKIAL had engaged an independent agency – M/s Mott MacDonald for assessing passenger traffic, ATM, and cargo traffic for TRV. Based on its analysis, M/s Mott MacDonald issued a report on 3rd September 2021 wherein it provided low, base, and high case for projected traffic for the Third Control Period. The broad assumptions for the three cases as per the report are as follows.

"*The **Base** case adopts realistic but conservative assumptions on the progress of the pandemic, roll-out of COVID-19 vaccines, relaxation of travel restrictions, recovery of passengers' willingness to travel, and recessionary impacts of the crisis on the Indian and key source markets.*

*The **Low** case reflects more prolonged measures to control the pandemic (such as a further wave of infections or a greater time to roll out the COVID-19 vaccines more widely), which results in slower relaxing of travel restrictions, a slower passenger recovery, and a greater recessionary impact in the Indian and key source markets. The Low case also incorporates a scenario in which SpiceJet (which has struggled for profitability in recent years) fails during April 2022…*

*The **High** case incorporates more optimistic, albeit still realistic, assumptions (such as COVID-19 vaccines being widely available by mid-2021, swift relaxation of travel restrictions in the Indian and key source markets, and rapid restoration in passengers' confidence to travel).*"

6.1.4 The traffic projections submitted by TKIAL in Table 82 above are adopted from Mott MacDonald's 'base case' scenario.

6.1.5 The Passenger traffic and ATM projected above have been adjusted by TKIAL to account for billable passenger traffic (excluding certain categories of passengers such as infants for whom UDF charges are not leviable) and billable domestic ATMs (other than ATMs pertaining to less than 80-seater capacity flights that are exempt from landing charges, which includes flights operating under Regional Connectivity scheme (RCS) scheme initiated by the GoI). The exempt ATMs considered by TKIAL ranges from 8% to 13% of the total domestic ATMs and the exempt passenger traffic was considered at 3% of the total passenger traffic, as given in the table below.

Table 84: Exempted Domestic ATM and Passenger Traffic submitted by TKIAL for the Third Control Period

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
Exempt Domestic ATM submitted by TKIAL as a % of total Domestic ATM	13.00%	11.00%	10.00%	9.00%	8.00%

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
Exempt Passengers (Domestic and International) submitted by TKIAL as a % of total passengers	3.00%	3.00%	3.00%	3.00%	3.00%

6.1.6 The adjusted Passenger traffic, ATM and cargo submitted by TKIAL are as follows:

Table 85: Adjusted traffic at TRV submitted by TKIAL for the Third Control Period

Year	Passenger			ATM			Cargo		
	Domestic	Int'l	Total	Domestic	Int'l	Total	Domestic	Int'l	Total
Traffic									
FY 23	14,97,785	18,55,147	33,52,932	10,679	12,967	23,646	1,686	20,474	22,160
FY 24	19,13,826	23,94,384	43,08,209	13,733	16,278	30,011	2,142	25,654	27,796
FY 25	21,84,608	27,92,315	49,76,922	15,813	18,934	34,747	2,568	30,323	32,891
FY 26	23,73,119	30,74,157	54,47,276	17,325	20,784	38,109	2,923	33,828	36,751
FY 27	25,67,637	32,86,716	58,54,353	18,907	22,134	41,041	3,307	36,635	39,942
Total	**1,05,36,974**	**1,34,02,719**	**2,39,39,692**	**76,457**	**91,097**	**1,67,554**	**12,626**	**1,46,914**	**1,59,540**
Growth rates									
FY 23*	114.14%	94.04%	102.53%	52.34%	55.37%	53.99%	-1.17%	37.66%	33.66%
FY 24	27.78%	29.07%	28.49%	28.59%	25.53%	26.92%	27.05%	25.30%	25.43%
FY 25	14.15%	16.62%	15.52%	15.15%	16.32%	15.78%	19.89%	18.20%	18.33%
FY 26	8.63%	10.09%	9.45%	9.56%	9.77%	9.68%	13.82%	11.56%	11.74%
FY 27	8.20%	6.91%	7.47%	9.13%	6.50%	7.69%	13.14%	8.30%	8.68%

**Growth rates are computed based on FY 2021-22 traffic*

6.2 Authority's examination regarding TKIAL's submission of Traffic for the Third Control Period

6.2.1 The Authority notes that Mott MacDonald, appointed as a consultant by TKIAL, has forecasted the passenger traffic at TRV based on the combination of the two approaches detailed below.

- Short-term 'bottom-up' approach wherein the historical traffic, the epidemiological situations, COVID scenarios, load factor and flight frequency development were analyzed to arrive at the short-term forecast of traffic at TRV.
- An econometric forecast using a traditional econometric model wherein regression analysis was used to establish the relationship between passenger traffic and GDP. The model was developed based on analysis of AAI traffic data, short-term forecasts, etc.

6.2.2 The ATM was forecasted based on the average seats per movement growth (considering the current and potential fleet mix at the airport, domestic and international separately) and load factor growth assumptions.

6.2.3 The cargo traffic has been forecasted based on analysis of average cargo tonnage per aircraft movement for domestic and international separately over time.

6.2.4 The Authority notes that the TKIAL has assumed the 'base scenario' estimates of traffic forecasts submitted by Mott MacDonald for projecting Passenger traffic, ATM and Cargo traffic (both domestic and international).

6.2.5 The Authority notes that the TKIAL has considered only billable ATM, after excluding ATM traffic that is exempted from landing charges. However, the Authority is of the view that RCS scheme is promoted by the GoI with the objective of making regional air connectivity affordable by supporting airline operators through concessions offered by the Central Government, State Government and the Airport Operators. As this scheme is promoted to encourage small aircraft, the flights operating under this scheme are not eligible to be claimed as exemption. The Authority noted that out of the total exempted traffic submitted by TKIAL for FY 2022-23 (12.2% of the total domestic ATMs), 1.0% constitutes flights operating under the RCS Scheme and the balance pertains to non-RCS flights. Hence, the Authority had considered the billable ATM traffic after excluding the ATMs that pertain to less than 80-seater capacity non-RCS flights that are exempted from landing charges.

6.2.6 The Authority also notes that TKIAL has, vide its reply to queries dated 6th November 2023, informed that the RCS flights operated by InterGlobe Aviation Limited (Indigo) has ceased from 30th May 2022 and that there are no flights operating under RCS Scheme beyond this date from TRV.

6.2.7 The Authority, after rationalization, has derived the exempted traffic as approximately 11% for FY 2022-23 and has considered the same for determining the billable domestic ATM for FY 2022-23. For FY 2023-24, the Authority proposes to consider the same exempt traffic as determined for FY 2022-23 while for the remaining tariff years, the Authority proposes to consider the exempt traffic submitted by TKIAL.

6.2.8 Similarly, Government of India has allowed exemption of UDF to certain categories of passengers through Order No. AIC 14/2019 read with AIC 20/2019. TKIAL cannot claim any pass-through regarding UDF on such categories and this is followed by AERA across all the Major Airports.

6.2.9 Based on the above factors, the exempt traffic considered by the Authority for determining billable domestic ATM (after excluding ATMs that pertain to less than 80-seater capacity flights which fall under non-RCS category) and billable passenger traffic for the Third Control Period for TRV is as follows:

Table 86: Exempt traffic considered by the Authority for determining billable traffic at TRV airport for the Third Control Period

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
Exempt Domestic ATM proposed by Authority as a % of total Domestic ATM	11.26%	11.00%	10.00%	9.00%	8.00%

** Actual data has been considered for FY 2022-23*

6.2.10 As part of its examination of traffic forecast submitted by the TKIAL, the Authority has calculated Compounded Annual Growth Rate (CAGR) for Passenger traffic, ATM and Cargo traffic from FY 2009-10 to FY 2019-20 (10-year CAGR), FY 2009-10 to FY 2018-19 (9-year CAGR), FY 2014-15 to FY 2019-20 (5-year CAGR) and FY 2016-17 to FY 2019-20 (3-year CAGR).

6.2.11 The table below provides the details of the CAGR for Passenger traffic, ATM and Cargo. The 10-year, 5-year and 3-year CAGRs have been computed for the respective periods up to FY 2019- 20, as FY 2020-21 and FY 2021-22 traffic were affected by the COVID-19 pandemic and therefore may not provide an appropriate basis for arriving at the CAGR. The computation of 9-year CAGR is based on the period FY 2009-10 to FY 2018-19, in order to remove certain extraneous events of FY 2019-20 as detailed in para 6.2.13 below.

Table 87: CAGR for Passenger traffic, ATM and Cargo

Particulars	10-year CAGR (FY10-FY20)	9-year CAGR (FY10-FY19)	5-year CAGR (FY15-FY20)	3-year CAGR (FY17-FY20)
Passengers:				
Domestic	10.36%	12.93%	9.60%	2.83%
International	2.68%	4.54%	1.09%	-1.46%

Particulars	10-year CAGR (FY10-FY20)	9-year CAGR (FY10-FY19)	5-year CAGR (FY15-FY20)	3-year CAGR (FY17-FY20)
Total	5.32%	7.39%	4.31%	0.32%
ATM:				
Domestic	3.27%	3.99%	9.49%	4.00%
International	-0.25%	2.30%	0.01%	-3.81%
Total	1.30%	3.01%	3.99%	-0.32%
Cargo:				
Domestic	3.44%	0.48%	11.65%	10.29%
International	-2.96%	-3.20%	-3.95%	-4.47%
Total	-2.59%	-3.01%	-3.12%	-3.57%

6.2.12 The Authority notes that there is a variation in traffic and volatility in past trends, causing CAGR for these periods and not to be suitable for estimation of future traffic.

6.2.13 The Authority notes that there has been a decrease in the Passenger and ATM traffic particularly in the FY 2019-20, which is a pre-COVID year, mainly due to the closure of operations by Jet Airways with no replacement for those vacant slots together with the impact of COVID-19 pandemic towards the end of the FY 2019-20.

6.2.14 It was observed that for FY 2020-21, when compared to FY 2019-20, there was a reduction of 72.12% and 79.24% in domestic passenger traffic and international passenger traffic respectively, 63.57% and 71.63% respectively in domestic ATM and international ATM, and 48.20% and 41.46% respectively in domestic Cargo and international Cargo. This was due to the adverse impact of COVID-19 pandemic on the domestic and international aircraft movements.

Computation of traffic forecasts by the Authority, considering the impact of COVID-19 pandemic

6.2.15 The traffic forecasts have been computed by the Authority, after taking into account the analysis by the following agencies regarding the impact of COVID-19 pandemic on the Aviation sector, apart from the study report provided by Mott MacDonald for TKIAL.

6.2.16 **Airports Council International (ACI) -** ACI in its latest report available has projected the following air passenger traffic outlook:

- *Prior to the COVID-19 pandemic, the global passenger volume was estimated to reach 10.5 billion passengers in 2023. However, the current projection of global passenger volume in 2023 is approximately 8.6 billion passengers, which is 94.2% of the 2019 level.*
- *The year 2024 is expected to be a milestone for global passenger traffic recovery as it reaches 9.4 billion passengers, surpassing the year 2019 that welcomed 9.2 billion passengers (102.5% of the 2019 level). Compared to the pre-COVID forecast that predicted 10.9 billion passengers in 2024, the effects of the pandemic represent a potential loss of 13.9%.*
- *While the Asia-Pacific region is expected to have a substantial jump in passenger traffic in the first half of 2023 along with the ongoing opening of the Chinese market, its recovery is predicted to slow down significantly in the second half of the year due to challenges in overseas tourism and looming economic concerns. By the end of the year, the region is expected to reach 2.9 billion passengers, or 87.3% of the 2019 level. With the uncertainty from both upside and downside factors, the region is expected to reach approximately 3.4 billion passengers, or 99.5% of the 2019 level, in 2024.*

6.2.17 **International Air Transport Association (IATA)** - IATA in its latest market analysis report has reported the following:

- *Industry-wide revenue passenger-kilometers (RPKs) increased 29.7% year-on-year (YoY) in November and closed the gap to 2019 levels to within 1%.*
- *Available seat-kilometers (ASKs) rose by 28.6% YoY, recovering to 98.2% of pre-pandemic capacity. Global passenger load factor increased over the year and compared to 2019, now standing at 81.8%.*
- *Domestic RPKs grew 6.7% over pre-pandemic levels with an annual growth rate of 34.8%. International RPKs 94.5% of pre-pandemic levels and increased 26.4% YoY.*
- *Air passenger traffic, measured in revenue passenger-kilometers (RPKs), continued to grow in November with a 29.7% increase over the year. Global RPKs are now just 0.9% lower than pre-pandemic levels. In seasonally adjusted terms, growth continued although at a slightly slower pace compared to the previous months with 0.6% month-on-month (MoM) growth.*

Conclusion on traffic forecasts based on the above assumptions.

6.2.18 Considering the extraordinary adverse impact of COVID-19 pandemic on domestic and international air travel, the Authority has taken into consideration the forecasted data published by ACI and IATA cited in para 6.2.16 and 6.2.17 above for arriving at the revised traffic projections.

6.2.19 The Authority has reviewed the actual Passenger traffic, ATM and Cargo traffic data for FY 2022-23 (from AAI website) and has considered the same for estimating traffic for the remaining years of the Third Control Period:

Table 88: Actual Passenger, ATM and Cargo traffic for the period FY 2022-23

Particulars (in No's)	Domestic	International	Total
Actual Traffic data from April 2022 to March 2023:			
PAX	1,679,385	1,798,682	3,478,067
ATM	12,270	12,324	24,594
Cargo	1,800	14,922	16,722

6.2.20 The Authority has also compared the actual traffic achieved during YTD December 2023 (i.e., April 2023 to December 2023) with that of the corresponding period in FY 2019-20 (i.e., pre-COVID period) and notes that the actual Passenger traffic and ATM of YTD December 2023 has surpassed the pre-COVID levels of FY 2019-20, while that for Cargo is at 67% of traffic in the corresponding period in FY 2019-20. The details of the same are given below.

Table 89: Comparison of Passenger traffic, ATM and Cargo traffic at TRV in FY 2023-24 with FY 2019-20

Traffic (in No's)	Apr'19 – Dec'19			Apr'23 – Dec'23			As a % of FY 20		
	Domestic	Int'l	Total	Domestic	Int'l	Total	Domestic	Int'l	Total
Passenger	12,93,347	17,58,028	**30,51,375**	17,23,291	15,07,612	**32,30,903**	133%	86%	106%
ATM	10,358	11,613	**21,971**	12,445	9,795	**22,240**	120%	84%	101%
Cargo	1,621	18,749	**20,370**	1,901	11,794	**13,695**	117%	63%	67%

6.2.21 Considering the positive outlook of the GDP growth predicted by the GoI and relatively better revival of the domestic aviation market, the Authority is of the view that domestic passenger traffic and ATM will revert to pre-COVID levels (of FY 2019-20) by FY 2023-24.

6.2.22 Further, the Authority notes that as per the predictions done by the above agencies (as cited in para 6.2.16 and 6.2.17 above), international passenger traffic and ATM will reach pre-COVID levels (of FY 2019-20) by FY 2024-25. However, the Authority notes that, the actual international traffic has already reached 86% of comparable period of FY 2019-20 by December 2023. Therefore, the Authority is of the view that the international passenger traffic will reach pre-COVID levels in FY 2023-24 itself which is the view of TKIAL as seen from the traffic estimates submitted by it.

6.2.23 Considering the positive outlook provided by the Expert Agencies and the encouraging trend in the traffic numbers reported in the first nine (9) months of FY 2023-24, the Authority proposes to consider the passenger traffic and ATM proposed by the TKIAL for the remaining tariff years viz., FY 2023-24 to FY 2026-27.

6.2.24 In respect of Cargo traffic, the Authority notes that TRV has achieved only 67% of pre-COVID level in YTD December 2023 with the domestic cargo traffic achieving 117% of the pre-COVID level. Further, considering the positive trend in the combined Cargo traffic for the first nine months of FY 2023-24 as against the same period in FY 2022-23, the Authority proposes to consider the Cargo traffic projections submitted by the TKIAL for the remaining four tariff years of the Third Control Period.

6.2.25 The Authority also notes that, as per the MYTP submission, TKIAL was expected to begin the international cargo operation from 1st April 2023. However, in the reply to queries dated 8th November 2023, TKIAL has informed that the international cargo operation is expected to begin in Quarter 4 of FY 2023-24. Considering the revised start date, the Authority proposes to prorate the international cargo volume handled by TKIAL in FY 2023-24. The Authority also proposes to consider volume for FY 2024-25 as submitted by TKIAL and the market share of 70% as submitted by TKIAL for estimating the cargo to be handled in FY 2025-26 and FY 2026-27.

6.2.26 Based on the above analysis, the growth rates and the corresponding traffic for Passengers, ATM and Cargo as considered by the Authority for the Third Control Period are as given in the table below.

Table 90: Traffic proposed to be considered by the Authority for the Third Control Period

Particulars	FY 23*	FY 24	FY 25	FY 26	FY 27	Total
Domestic Passengers						
Domestic PAX submitted by TKIAL	15,44,108	19,73,016	22,52,173	24,46,514	26,47,049	**1,08,62,860**
Domestic PAX proposed by the Authority (A)	16,79,385	19,73,016	22,52,173	24,46,514	26,47,049	**1,09,98,137**
TKIAL’s submission as a % of FY 2019-20 traffic	90%	115%	132%	143%	155%	
Proposed traffic as per Authority as a % of FY 2019-20 traffic	98%	115%	132%	143%	155%	
International Passengers						
International PAX submitted by TKIAL	19,12,523	24,68,437	28,78,675	31,69,234	33,88,367	**1,38,17,236**
International PAX proposed by the Authority (D)	17,98,682	24,68,437	28,78,675	31,69,234	33,88,367	**1,37,03,395**
TKIAL’s submission as a % of FY 2019-20 traffic	87%	112%	130%	143%	153%	
Proposed traffic as per Authority as a % of FY 2019-20 traffic	81%	112%	130%	143%	153%	
Total passengers						
Total PAX as per TKIAL's submission	34,56,631	44,41,453	51,30,848	56,15,748	60,35,416	**2,46,80,095**

Particulars	**FY 23***	**FY 24**	**FY 25**	**FY 26**	**FY 27**	**Total**
Total (Domestic and International) proposed by the Authority	34,78,067	44,41,453	51,30,848	56,15,748	60,35,416	**2,47,01,531**
Proposed total traffic as per TKIAL's submission as a % of FY 2019-20 traffic	88%	113%	131%	143%	154%	
Proposed total traffic as per Authority as a % of FY 2019-20 traffic	89%	113%	131%	143%	154%	
Domestic ATM (in No's)						
Domestic ATM submitted by TKIAL	12,275	15,430	17,570	19,039	20,551	**84,865**
Domestic ATM proposed by the Authority (H)	12,270	15,430	17,570	19,039	20,551	**84,860**
TKIAL's submission as a % of FY 2019-20 ATM	87%	110%	125%	136%	146%	
Proposed ATM traffic as per Authority as a % of FY 2019-20 ATM	87%	110%	125%	136%	146%	
Domestic exempted ATM (in %)						
Submitted by TKIAL	13.00%	11.00%	10.00%	9.00%	8.00%	
As per the Authority (I)	11.26%	11.00%	10.00%	9.00%	8.00%	
Domestic Billable ATM (in No's)						
Submitted by TKIAL	10,679	13,733	15,813	17,325	18,907	**76,457**
As per the Authority (J=H*(1-I))	10,888	13,733	15,813	17,325	18,907	**76,666**
International ATM (in No's)						
International ATM submitted by TKIAL	12,967	16,278	18,934	20,784	22,134	**91,097**
International ATM proposed by the Authority (K)	12,324	16,278	18,934	20,784	22,134	**90,454**
TKIAL's submission as a % of FY 2019-20 ATM	88%	110%	128%	140%	149%	
Proposed ATM traffic as per Authority as a % of FY 2019-20 ATM	83%	110%	128%	140%	149%	
Total ATM (in No's)						
Total ATM (Domestic and International) as per TKIAL's submission	25,242	31,708	36,504	39,823	42,685	**1,75,962**
Total ATM (Domestic and International) proposed by the Authority	24,594	31,708	36,504	39,823	42,685	**1,75,314**
TKIAL's submission as a % of FY 2019-20 total ATM	88%	110%	127%	138%	148%	
Proposed total ATM as per Authority as a % of FY 2019-20 ATM	85%	110%	127%	138%	148%	
Total Billable ATM (in No's)						
Submitted by TKIAL	23,646	30,011	34,747	38,109	41,041	**1,67,554**
As per Authority (L=J+K)	23,212	30,011	34,747	38,109	41,041	**1,67,120**
Domestic Cargo (in MT)						

Particulars	**FY 23***	**FY 24**	**FY 25**	**FY 26**	**FY 27**	**Total**
Domestic Cargo submitted by TKIAL	1,686	2,142	2,568	2,923	3,307	**12,626**
Domestic Cargo proposed by the Authority	1,800	2,142	2,568	2,923	3,307	**12,740**
TKIAL's submission as a % of FY 2019-20 total Cargo	83%	106%	127%	144%	163%	
Proposed Cargo traffic as per Authority as a % of FY 2019-20 ATM	89%	106%	127%	144%	163%	
International Cargo (in MT)						
International Cargo submitted by TKIAL	20,474	25,654	30,323	33,828	36,635	**1,46,914**
International Cargo proposed by the Authority	14,922	25,654	30,323	33,828	36,635	**1,41,362**
TKIAL's submission as a % of FY 2019-20 Cargo	87%	109%	129%	144%	156%	
Proposed Cargo traffic as per Authority as a % of FY 2019-20 Cargo	64%	109%	129%	144%	156%	
Total Cargo (in MT)						
Total Cargo submitted by TKIAL	22,160	27,796	32,891	36,751	39,942	**1,59,540**
Total Cargo proposed by the Authority	16,722	27,796	32,891	36,751	39,942	**1,54,102**
TKIAL's submission as a % of FY 2019-20 total Cargo	87%	109%	129%	144%	157%	
Proposed Cargo traffic as per Authority as a % of FY 2019-20 Cargo	66%	109%	129%	144%	157%	
TKIAL's share of Cargo Traffic						
As per TKIAL						
Domestic cargo	1,000	2,000	2,000	2,046	2,315	**9,361**
International cargo	-	4,500	6,000	23,680	25,645	**59,824**
Total cargo	1,000	6,500	8,000	25,726	27,959	**69,185**
TKIAL Market Share	*4.51%*	*23.38%*	*24.32%*	*70.00%***	*70.00%*	
As per the Authority						
Domestic	1,382	2,000	2,000	2,046	2,315	**9,743**
International	-	750	6,000	23,680	25,645	**56,074**
Total	1,382	2,750	8,000	25,726	27,959	**65,817**

** Note – The traffic of FY 2022-23 is based on the actuals as available in AAI's website*
*** based on TKIAL's expectation*

6.3 Authority's proposals regarding Traffic for the Third Control Period

Based on the available facts and analysis thereupon, the Authority proposes the following with regard to traffic forecast for the Third Control Period:

6.3.1 To consider the Passenger traffic, ATM and Cargo traffic for the Third Control Period for TRV as per Table 90.

6.3.2 To true up the traffic volume (Passengers, ATM and Cargo) based on actual traffic in the Third Control Period while determining tariffs for the Fourth Control Period.

7 CAPITAL EXPENDITURE (CAPEX), DEPRECIATION AND REGULATORY ASSET BASE (RAB) FOR THE THIRD CONTROL PERIOD

7.1 Background

7.1.1 RAB is an essential element in the process of tariff determination. The return to be provided on the RAB constitutes a considerable portion of the Aggregate Revenue Requirement for an Airport Operator. To encourage the participation of the private sector in airport development and operations, investors must be fairly compensated for the capital outlays involved. At the same time, to safeguard the interests of the airport users, it must be ensured that the capital additions are efficient, their needs justified, and the return on investment is provided solely on the assets related to the core operations (i.e., Aeronautical services) of the airport.

7.1.2 The Authority notes that Schedule B to the Concession Agreement (CA) details the development of the airport which includes construction and procurement of various assets such as:

- Environmental Sustainability projects relating to water, energy, materials/resources, waste management, indoor environment quality etc.
- Runways, Taxiways, Aprons, Aircraft parking bays, Air Traffic control tower, Cargo facilities, Parking, Flight kitchens, Maintenance, Repair and Overhaul (MRO) facilities, Warehousing facilities, Airline offices, administrative offices and associated facilities.
- Construction and procurement of Terminal Building and facilities and
- Construction of required approach roads.

7.1.3 The relevant clauses of Schedule B of the CA have been given in Annexure 4 of Chapter 17 of this Consultation Paper.

7.1.4 In this background, the Authority observes that TKIAL has planned to develop TRV Airport to increase the annual passenger throughput capacity (domestic and international) and annual cargo handling capacity, along with ancillary facilities as per the demand projections.

The Authority also notes that TKIAL is mandated to develop a new integrated terminal building in a phased manner which should be sustainable and economical, as defined under Schedule B of Annex I of the CA (refer to Annexure 4 of Chapter 17 of this Consultation Paper). Further, as per Clause 23.7.1 of the CA – *"The Concessionaire shall participate in the user survey of ASQ undertaken by ACI or any substitute thereof, conducted every quarter and ensure that the Airport achieves and maintains a rating of at least 4.5 out of 5.0 and/ or shall appear within top 20 percentile of all airports, in its category in the World in such survey within five (5) years from the COD and maintain the same throughout the rest of the Concession Period."*

7.1.5 The Independent Consultant appointed by the Authority has performed an in-depth analysis of the submissions made by TKIAL regarding Aeronautical Capital Additions, Depreciation and RAB. In this respect, the Independent Consultant has performed the following functions:

(i) Sought and verified various technical and study reports provided by TKIAL, Drawings and Plans, BOQs, cost estimates and break-up, detailed justification and explanation, Demand vs. Requirement statement, Copies of Letter of Intent (LOI), Letter of Award (LOA), Purchase Orders and Work Orders, etc. as applicable, provided by the TKIAL, and

(ii) Sought documentary evidence and verified the process of approval of CAPEX projects including competitive bidding process for award of various work orders, where applicable, to the contractors for such projects.

7.1.6 Based on the review of documents as stated above, the Authority has rationalized the CAPEX projects, submitted by TKIAL by shifting the capitalization date of some of the projects within the Third Control Period and deferring certain others to the next Control Period based on the essentiality and necessity for Airport operations.

7.1.7 In the background of the facts stated above, the Authority has examined the capital expenditure proposed by TKIAL, considering the historical traffic trends and future traffic estimates such that only essential, reasonable and efficient CAPEX is considered as part of RAB for the Third Control Period with a view to encourage the investment and maintain a balanced approach between the sustainable operations of the TKIAL and the interest of the airport users. Further, the Authority takes cognizance of the fact that, if any excessive CAPEX is allowed in this Control Period, it would be against the regulatory framework, as tariff would have no link to the services/ facilities created at the Airport and the resultant high aeronautical charges would be unfair to the end-users.

7.1.8 Towards this objective, the Authority has examined in detail the Aeronautical Capital Expenditure, Depreciation and RAB submitted by the TKIAL and has presented its views in the following order:

(i) Capital expenditure for the Third Control Period
(ii) Aeronautical allocation of capital expenditure for the Third Control Period
(iii) Aeronautical depreciation for the Third Control Period
(iv) Regulatory Asset Base for the Third Control Period

7.1.9 While analyzing the MYTP regarding capitalization of Aeronautical Expenditure for the Third Control Period, the Authority has considered the actual traffic, growth in traffic and actual Peak Hour Passenger (PHP) as submitted by TKIAL. In this background, the Authority has sought and examined the TKIAL's submission based on the following details/criteria:

- Nature of the expenditure
- Necessity/requirement of the expenditure
- Business plan and Master plan for all projects
- Number of PAX on hourly basis, both at present and projected, for the Third Control Period
- Terminal Capacity both at present and projected for the Third Control Period
- Other short-term and long-term plans of the TKIAL
- Sustainability of the airport operations
- Passenger considerations
- Safety and security of the airport
- Process of approval and sanction for various work orders/purchase orders

7.1.10 Based on the above, the Authority has rationalized the capital expenditure for all the projects and accordingly proposes capital additions for the Third Control Period. However, if the project is mandated by regulatory requirements or are incurred for improving operational efficiency, the Authority will true up the costs on actual incurrence basis, subject to evaluation of reasonableness and efficiency at the time of determination of tariff for the next Control Period.

7.1.11 The Authority, through its Independent consultant, which interacted with the Technical team of TKIAL on the aspects of airport planning, traffic estimation, designing and its short, mid and long term impact on Airport Economics as provided in the Concession Agreement, observed that prima facie, it appears that TKIAL does not have the domain specific expertise to carry out detailed evaluation of the infrastructure requirements based on which the Capital Expenditure Projects may be assessed and planned at the airport, in the overall interest of all the stakeholders of the airport. The Airport Operator needs to work on the aspect of capacity in this regard as has been highlighted in earlier tariff orders.

In view of these facts, the Authority notes that the Capital Expenditure estimates submitted by TKIAL are not reasonable / their need is not justifiable. Therefore, the Authority has considered various applicable factors such as current capacity, traffic estimates, normative cost benchmarks, need assessment etc. together with the need for modular development of facilities as mandated by the Concession Agreement and has rationalized the Capital Expenditure proposed as detailed below.

7.2 TKIAL's submission of Capital Expenditure (CAPEX) proposed for the Third Control Period

7.2.1 TKIAL has submitted Aeronautical Capital Expenditure of Rs. 4,026.52 crores (inclusive of Financing Allowance, preliminaries, pre-operative costs, indexation, contingencies etc.) in its MYTP for the Third Control period as given below:

Table 91: Asset category wise Capital additions submitted by the Airport Operator for TCP as part of the MYTP

(Rs. in crores)

Particulars	FY23	FY24	FY25	FY26	FY27	Total
Terminal Building	0.23	23.26	940.01	-	1,347.09	**2,310.60**
Runway, Taxiway and Apron	3.57	128.14	33.98	-	174.24	**339.92**
Boundary wall	-	-	7.99	-	45.32	**53.31**
IT equipment	3.93	47.82	6.25	6.83	7.65	**72.48**
Security equipment	1.38	2.17	-	-	-	**3.55**
Plant and Machinery	25.6	40.46	40.92	20.03	2.75	**129.76**
Other Buildings	6.45	21.76	4.52	460.35	8.47	**501.54**
Furniture & fixtures	0.72	2.80	2.51	3.00	3.17	**12.20**
Vehicles	6.51	4.37	2.90	1.09	0.31	**15.17**
Total Airport (A)	**48.38**	**270.79**	**1,039.08**	**491.29**	**1,589.00**	**3,438.54**
Cargo Complex (B)	-	-	-	100.90	-	**100.90**
Cargo Equipment (C)	9.44	-	-	-	-	**9.44**
Fuel Infrastructure & Hydrant System (D)	-	37.25	-	440.39	-	**477.65**
Grand Total (A + B + C + D)	**57.82**	**308.05**	**1,039.08**	**1,032.58**	**1,589.00**	**4,026.52**

Note – Project wise details are available in Table 92

7.2.2 Basis of capital expenditure considered in preparing the estimation as submitted by TKIAL is as follows:

i) **Block Cost Estimate** – Block Cost estimation for works as included in each category of CAPEX are based on DSR / MoRTH / Market rate including taxes, duties, levies etc. as applicable.

ii) **Indexation** @ 5% per annum has been considered (as per RBI forecaster survey Dec 2022) based on the cash flow projections being made in the respective years of the Control Period.

iii) **Soft Costs** of approx. 16% covering contingencies, preoperative Cost, design cost, PMC and preliminary expenses.

iv) **Financing Allowance** – Financing Allowance is calculated on the proposed capital expenditure based on construction phasing and capitalization of assets. The amount is calculated considering the cost of debt of 12%.

7.2.3 TKIAL has submitted multiple environmental and sustaining related projects under different heads. TKIAL has confirmed vide email dated 9th September 2023 that there is no duplication of items between these projects and that these are individually distinct items.

7.3 Authority's examination of Capital Expenditure (CAPEX) for the Third Control Period

7.3.1 The Authority has analyzed TKIAL's submissions regarding Capital Expenditure for the Third Control Period as submitted in the MYTP. The Authority has grouped the proposed capital expenditure for the Third Control Period into various categories for evaluation along with the respective base cost as detailed below. The indexation increase based on the amount spent in different years, soft cost and Financing Allowance/IDC are given separately as a total for all the proposed capital expenditure at the end of the table below.

Table 92: Project wise details of Capital Expenditure submitted by TKIAL for Third Control Period

(Rs. in crores)

Ref. No.	Project Detail	Base Cost*	FY of capitalization
A	**Terminal Building**		
A.1	Upgradation of Existing Terminal Building (T-I)	18.70	2024
A.2	Construction of New Domestic Terminal Building (T-I)	878.87	2027
A.3	Upgradation & Expansion of Terminal Building (T-II)	679.51	2025
	Sub-Total (A)	**1,577.08**	
B	**Runway, Taxiway and Apron**		
B.1	Airside/Landside Drain Network (3.5m W x 2 m D)	116.97	2027
B.2	Development of RESA for RWY 32	0.52	2025
B.3	Grading of runway, taxiway strips and other critical areas in operational area.	16.50	2024
B.4	GSE Staging - (Rigid Pavement)	2.31	2025
B.5	Sustaining / Minor Capex Works	7.36	2023, 2024
B.6	Expansion of Terminal T-II apron (Area includes HOS, Transition pavements, demolition & new pavements)	81.75	2024
	Sub-Total (B)	**225.41**	
C	**Runway Recarpeting**		
C.1	Runway and taxiway micro/ re surfacing and associated works	78.43	2025
	Sub-Total (C)	**78.43**	
D	**GA Terminal Building, Apron & Taxiway**		
D.1	Construction of Code C Taxiway for GA Apron (Activity includes demolition items)	11.62	2025
D.2	Construction of General Aviation (GA) Apron (Area includes HOS, Transition pavements, demolition & new pavements)	11.11	2025
D.3	GA Terminal	7.63	2025
	Sub-Total (D)	**30.36**	
E	**CNS/ATM**		
E.1	Airside Improvement Works	6.94	2024, 2025
E.2	ATC Tower and Technical Block	283.49	2026
	Sub-Total (E)	**290.43**	
F	**Cargo Complex & Equipment**		
F.1	Interim ICC and DCC equipment	7.89	2023
F.2	International Cargo Centre (ICC)	73.19	2026
	Sub-Total (F)	**81.08**	

Ref. No.	Project Detail	Base Cost*	FY of capitalization
G	**Fuel Infrastructure & Hydrant System**		
G.1	IOCL & BPCL Asset procurement	10.00	2024
G.2	Dead stock of Product	5.00	2024
G.3	Equipment cost	14.50	2024
G.4	Fuel hydrant line	167.57	2026
G.5	Fuel storage farm	138.55	2026
	Sub-Total (G)	**335.62**	
H	**Boundary Wall**		
H.1	Airport Boundary Wall	4.52	2027
H.2	New Airside Perimeter after shifting boundary	6.05	2025
H.3	Perimeter Intrusion Detection System (PIDS)	25.92	2027
	Sub-Total (H)	**36.49**	
I	**Other Buildings**		
I.1	New Airside Security Gate -1,2,3	2.13	2025, 2026, 2027
I.2	Security equipment for Gates	1.52	2027
I.3	Upgradation of Airside gates- Crash Gates, Morcha construction at gate 6, 10, 11	2.32	2027
I.4	Airport Administration Building	45.57	2026
I.5	Sustaining / Minor Capex Works	18.40	2023, 2024, 2025, 2027
	Sub-Total (J)	**69.93**	
J	**IT**		
J.1	Strategic Projects	45.10	2023, 2024, 2025, 2026, 2027
J.2	Sustaining / Minor Capex Works	12.95	2023, 2024, 2025, 2026, 2027
	Sub-Total (I)	**58.05**	
K	**Environment Related Projects**		
K.1	Airside Fuel/ EV Charging Station (30KW charging points 3 nos; 2 fuel dispensing units and associated facilities)	2.08	2025
K.2	Airport Owned Electric Vehicles Procurement	6.16	2023, 2024, 2025
K.3	Other Environment Related	8.50	2023, 2024, 2026
K.4	DG Retro fitting	3.08	2023, 2024, 2025, 2026
K.5	Triturator	3.34	2025
K.6	Solid Waste Management - Landside	0.44	2023
K.7	Solid Waste Management Plant at T-II	0.55	2024
	Sub-Total (K)	**24.15**	
L	**Sustaining / Minor Capex Works**		
L.1	Oil Water Separators (OWS)	11.46	2025
L.2	1 Runway Rubber Removal Machine	6.82	2023
L.3	Fire Fighting Equipment and facilities	42.71	2023, 2024, 2025, 2026, 2027
L.4	Trolleys	7.67	2023, 2024, 2025, 2026, 2027

Ref. No.	Project Detail	Base Cost*	FY of capitalization
L.5	Other Works	37.83	2023, 2024, 2025, 2026, 2027
	Sub-Total (L)	**106.49**	
M	**Grand Total (Sum(A:L))**	**2,913.53**	
N	**Add:** Indexation (@5%)	351.97	
O	**Add:** Soft Cost (@16%)	522.48	
P	**Add:** FA/IDC (@12% Cost of Debt)	340.34	
Q	**Less:** Runway Recarpeting Considered as Operating Expenditure	101.80	
R	**Capex Considered for RAB by TKIAL (Sum(M:P) - Q)**	**4,026.52**	

**The base cost for each project line item excludes respective indexation, soft cost and FA/IDC which are given separately from N to P*

7.3.2 As per the AERA Guidelines 2011 (Terms and Conditions for Determination of Tariffs for Airport Operators) dated 28th February 2011, the Authority shall determine the Opening and Closing RAB in each Tariff Year of the Control Period on the basis of the forecasted RAB. In this context, the Authority has examined the submission of TKIAL regarding forecasted capital expenditure in the following paragraphs.

7.3.3 The Authority notes that TKIAL has conducted Airport Users Consultative Committee (AUCC) meeting on 23rd January 2023 with all the stakeholders and discussed about the Capital Expenditure proposed to be undertaken during the Third Control Period effective from FY 2022-23 to FY 2026-27. The meeting was attended by various aviation stakeholders including International Air Transport Associations (IATA), Federation of Indian Airlines (FIA), Federation of Indian Chambers of Commerce and Industry (FICCI), Indigo, SpiceJet, Emirates and AAI. As per the minutes of the meeting, the Authority observed that TKIAL had broadly discussed the following with the stakeholders:

(i) History of TRV, its catchment area, attractiveness, existing and potential facilities at the airport.

(ii) Traffic trends (historical & future)

(iii) Detailed presentation on the projects planned by the TKIAL during the Third Control Period with reference to the existing challenges at TRV pertaining to its location, topography, availability of land, etc. and with specific emphasis on key issues relating to all areas, i.e., landside, terminal and airside.

(iv) Key objectives of the Master plan for the Airport in the background of the Concession Agreement covering 50 years of the Concession period along with the projects that will be undertaken during Phase 1 (7 years as required under the Concession Agreement) and 5 years in the Third Control Period (1st April 2022 to 31st March 2027).

7.3.4 Certain observations made by some of the stakeholders are as below:

(i) FICCI suggested increasing the connectivity between airports in Kerala using smaller aircrafts and increasing the connectivity between Kochi to TRV, from one flight per day to two-three flights per day.

(ii) IATA recommended TKIAL to ensure that prior to additional capital expenditure proposals for upgradation, expansion and new construction, the existing airport infrastructure is exhausted to ensure optimal use of the airport facilities in a timely manner.

(iii) FIA suggested that only necessary capital items related to safety and security should be considered in the Third Control Period for the smooth and safe conduct of airport operations.

7.3.5 The Authority notes from the Minutes of the AUCC meeting that, stakeholders have emphasized to carry out only the necessary and essential projects during the Third Control Period, after fully utilizing the existing infrastructure. The Authority also notes that certain observations were made by some of the stakeholders relating to the aspects of normative costing, cost estimates projected for the capex projects, traffic forecast, etc.

7.3.6 The Authority notes that CWIP of Rs. 0.73 crores was transferred by AAI to TKIAL on COD. As per the FARs shared on 10th January 2024, Rs. 0.22 crores was capitalized in FY 2022-23 and Rs. 0.05 crores was capitalized till September 2023.

7.3.7 The Authority has examined the capital expenditure projects submitted by TKIAL and has rationalized it based on present and future designated capacity of the Airport to handle the forecasted traffic, observations on progress made during the Airport visit by the Independent Consultants and with the perspective of keeping the tariff at a reasonable level.

7.3.8 The Authority observes that TKIAL has submitted various Minor Projects/Works under different heads consisting of numerous sub-projects/procurements planned to be carried out over the Third Control Period. The Authority notes that for certain Minor Projects, TKIAL has provided POs and BOQs for only a portion of the cost. For the remaining amounts, which consist of multiple line items, cost estimates have not been submitted by TKIAL to justify the proposed costs. The Authority notes that these are budgets for various procurements and minor works over the Third Control Period. Therefore, detailed estimates and POs may not be available at this stage. In the absence of such details, it is not possible to assess the reasonableness of these expenses. Thus, the Authority proposes to rationalize the capital expenditure for some of the projects/ capital items at this stage. In the event that such projects are necessary and critical to airport operations, TKIAL may incur the remaining amounts and the same would be taken into due consideration on actual incurrence basis subject to evaluation of efficiency and reasonableness, by the Authority, at the time of determination of tariffs for the Fourth Control Period (refer Annexure 3 for the list of such projects not considered as addition to RAB in the current control period).

The Authority has also examined the individual line items under each Project and classified them based on the nature of the project into aeronautical, non-aeronautical and common. The common assets were further bifurcated using the Terminal Area Ratio or Employee Head Count Ratio. Accordingly, only the aeronautical portion of the cost has been considered as part of aeronautical capital expenditure. The Authority has detailed its examination of the respective Minor Projects under the relevant heads.

7.3.9 The Authority examined the cost estimate submitted by TKIAL and noted that they are generally based on CPWD / PAR rates (exceptions noted to this have been detailed in the respective sections). The Authority also notes that TKIAL has considered 10% additional cost towards working in operational areas, in certain BOQ line items. However, the Authority is of the view that the provision made by TKIAL towards additional cost for working in operational area is quite high and therefore proposes to consider the allowance for extra cost over applicable rates for working in operational areas to the maximum allowable level, i.e. 5% as per the public works guidelines (generally where NOTAM is issued), in the BOQ items where TKIAL has claimed 10% additional cost.

7.3.10 The Authority's examination of the projects proposed by TKIAL (refer Table 92) is given project-wise in the following paragraphs. The values of costs given herein denote the base cost for the item. Evaluation of other costs added to the base cost are detailed subsequently:

A. Terminal Building (Rs. 1,577.08 crores)

7.3.11 The Authority notes that TKIAL has proposed the following activities relating to the Terminal Buildings:

- Upgradation of the Existing Terminal Building (T-I) (Rs. 18.70 crores)
- Construction of New Domestic Terminal Building (T-I) (Rs. 878.87 crores)
- Upgradation and Expansion of existing Terminal Building (T-II) (Rs. 679.51 crores)

7.3.12 The Authority notes that the above three activities are interrelated. Detailed analysis in this regard is presented below.

A.1 Upgradation of Existing Terminal Building T-I (Rs. 18.70 crores)

TKIAL's submission

7.3.13 TKIAL has submitted as follows:

Existing TI (located at southern side) is a 38-year-old infrastructure commissioned in 1985, spread across an area of approximately 15,800 sqm, with peak hour capacity of 800 (arrival and departure). TKIAL proposes the refurbishment of T-I to accommodate the current and near future passenger traffic till FY 2024-25. Henceforth, all passenger traffic will be redirected to Terminal Building (T-II) for integrated domestic and international operations. The proposed refurbishments include the following:

Table 93: Details of Refurbishment of Terminal I proposed by TKIAL

Processor	Existing	Required	Proposed Modification
Terminal Entry (Departure)	4	5/1 (Economy/ Premium)	Currently, two entry gates (with two check points each), make a total of 4 entry points. The demand for FY 2023- 24 is 6, therefore, an additional entry gate is required.
Self Service Kiosks (CUSS)	3	9	Add 6 CUSS units on the Curbside
Security Screening XBIS	2	6	Add 4 additional XBIS with minimal modification and a DFMD per XBIS
Security Screening DFMD	4	6	Provide 2 additional DFMD units with frisking booth and podium
Elevators, Escalators & Travelators	1	2	Add 1 escalator and 1 additional elevator
X Ray Screening Machines			
- Pre-check in	2	4	Replace existing machines with dual view
- Handbag screening	2	3	Replace existing machines with dual view
- Standby	1	1	Replace existing machine with dual view machine
CCTV Cameras	116	142	Add 26 additional CCTV cameras
Facelift Works			Change interior, renovate toilets, replace damaged floor and ceiling tiles, add more lights, change glass facade and airside canopy, modify entrance canopy

7.3.14 The break-up of the estimated cost submitted by TKIAL is given below:

Table 94: Cost towards T-I upgradation submitted by TKIAL

(Rs. in crores)

Description of Activities	Terminal Building	Kerbside	Total
Preliminary Works	0.44	0.33	0.77

Description of Activities	Terminal Building	Kerbside	Total
General Items	0.37	0.22	0.59
Civil and Structural Works	0.09	4.00*	4.09
Architectural Works	1.20	0.51	1.71
Interior Works	4.04**	-	4.04
Heating Ventilation and Airconditioning (HVAC)	0.29	-	0.29
Fire Protection System	0.01	0.01	0.02
Fire Alarm System	0.00	-	-
Electrical Works	0.46	0.09	0.55
Plumbing and Sanitary Fixtures (PHE)	0.26	0.14	0.40
CCTV	0.11	0.06	0.17
Access Control and Display System	0.30	0.10	0.40
Lifts and Escalators	0.22	-	0.22
Demolition Works	0.39	-	0.39
Miscellaneous Works	-	0.61	0.61
Security Screening Equipment & Related Works	1.62	-	1.62
Total Cost excl. GST	**9.80**	**6.05**	**15.85**
GST -18%	1.76	1.09	2.85
Total Cost incl. GST	**11.56**	**7.14**	**18.70**

**Civil and Structural works at Kerbside includes structural steel works and tensile structured canopy*

*** Interior works at Terminal includes Trigon ceiling, horizontal baffle ceiling, granite cladding, Z beam cladding etc.*

Authority's examination regarding Upgradation of Existing Terminal Building T-I

7.3.15 The Authority has reviewed the basis of estimates of these costs which have been prepared by TKIAL based on Market rate estimations. The Authority notes that, in addition to the interior repairs/ refurbishment works, the costs include estimates towards Security equipment and towards demolition and re-building of canopy. The Authority notes that the cost for Security Equipment is estimated at an overall basis of Rs. 1.62 crores which needs to be detailed at the time of tendering.

7.3.16 The Authority notes that TKIAL is currently undertaking the upgradation of the domestic terminal T-I with a view to enhance passenger satisfaction and improve service quality for both passengers and airlines. During the Airport visit on 2nd December 2023, the Authority, through its Independent Consultants, noted that the project is currently under implementation.

7.3.17 As noted in the Airport visit by the Independent Consultant, the works are currently in progress and not completed. Hence, the Authority proposes to consider the capitalization relating to Terminal-I upgradation as part of additions to RAB in FY 2024-25 instead of FY 2023-24.

7.3.18 The Authority notes that while certain upgradations to Terminal-I are being undertaken by TKIAL currently, this building is proposed to be demolished in the coming years (Refer para 7.3.23). The Authority notes that the activities being carried out are for certain immediate requirements to enhance service quality and hence the Authority proposes to consider the same. The Authority directs TKIAL to ensure that:

- TKIAL should only carry out activities that are essential and necessary for airport operations.
- TKIAL should ensure the re-use of all the existing equipment/fittings etc. in the other Terminal spaces on demolition of the current Terminal.

A.2 Construction of New Domestic Terminal (T-I) (Rs. 878.87 crores)

TKIAL's submission

7.3.19 TKIAL has submitted that the existing Terminal Building (T-I) has completed its useful life which will be demolished in FY 2024-25 and a new Domestic Terminal (T-I) with a built-up area of 56,000 sqm will be constructed in the existing place of T-I by FY 2026-27. The rationale for the area requirement of 56,000 sqm considered by TKIAL is based on the assessment of total Terminal area requirement as submitted below.

7.3.20 TKIAL has conducted a study on Traffic assessment through M/s Mott Macdonald. Based on the study, along with daily distribution flight simulation, TKIAL has projected the following peak hour capacity and terminal area requirement:

Table 95: Peak hour capacity and terminal area requirement submitted by TKIAL

Particulars	Unit	FY23	FY24	FY25	FY26	FY27
PHP estimate as per traffic study	Nos	2,139	2,631	2,952	3,147	3,318
Area requirement considering 35 sqm per passenger	Sqm	74,865	92,085	103,320	110,145	116,130
Area Availability/ planned for TCP						
Terminal I	Sqm	15,800	15,800			
New Terminal I	Sqm					56,000
Terminal II (including expansion)	Sqm	43,500	43,500	63,000	63,000	63,000
Total Area supply	Sqm	59,300	59,300	63,000	63,000	119,000

Note – TKIAL has proposed expansion of 19,500 sqm for T-II to be available in FY25. Refer analysis detailed in Para 7.3.37 on Terminal II expansion.

7.3.21 Considering the requirement of 1,16,130 sqm in FY 2026-27 to cater to the required peak hour capacity, TKIAL has proposed a new domestic terminal having size of 56,000 sqm on the same place as existing old T-I such that the combined area for T-II and the new Domestic terminal will help to create necessary capacity to meet the demand requirements.

7.3.22 Based on the sizing details given above, cost estimate for construction of new Terminal T-I submitted by TKIAL is as given below:

Table 96: Cost estimate for Construction of new Domestic Terminal Building (T-I) submitted by TKIAL

(Rs. in crores)

Particulars	UoM	Rate	Quantity	Amount
Demolition Works				
Demolition of Flexible Pavement	Sqm	570	3,569	0.20
Demolition of Rigid Pavement	Sqm	3,290	39,530	13.01
Demolition of Existing Structure	Sqm	3,900	20,274	7.91
New Pavement				
Landside Access Road	Sqm	9,900	6,508	6.44
Transportation Management	Sqm	6,100	9,360	5.71
Terminal Structure				
New Structure	Sqm	151,000	56,000	845.60
Total of T-I				**878.87**

Authority's Examination regarding Construction of New Domestic Terminal (T-I)

Evaluation of need for new Terminal building (T-I)

7.3.23 The Authority has sought evaluation report from TKIAL on the structural stability of T-I. TKIAL, vide email dated 5th September 2023, submitted a condition assessment study conducted by a Third Party in August 2023. This study included study of structural systems, visual inspection of the structures for any visible distress/damage, conducting various tests etc. The study has been enclosed in Appendix 3.

7.3.24 From the above report, the Authority notes that the existing Terminal-I has structural challenges which needs to be considered when planning for the augmentation of the infrastructure of the Airport.

Sizing of the Terminal

7.3.25 Considering an average of 25 sqm per passenger, the requirement for Terminal-I in FY 2026-27, based on the total PHP considered by TKIAL is only 82,950 sqm (3,318 passengers * 25 sqm per passenger). The Authority is conscious that the Terminal capacity should be planned considering a longer period of planning horizon. The Authority notes that even with a 5% growth in PHP for the next 5 years, the area requirement works out to ~ 1,06,000 sqm (4,234 passengers * 25 sqm per passenger).

7.3.26 The Authority notes that TKIAL has computed the terminal building area requirement based on the Peak Hour Passenger estimates. In order to ensure optimal sizing of Terminal Building area and also to ensure that the asset created are used fully, the Authority directs TKIAL to explore all factors including appropriate slot management techniques, use of technology in operations (for example Self Baggage drop facilities etc.) to ensure optimal planning of different operational areas considering applicable IMG norms and other guidelines.

Timing of commissioning of new Terminal Building T-I

7.3.27 The Authority notes that following sequence of activities have to be performed by TKIAL with respect to new Terminal Building T-I commissioning:

- Improvements planned for the existing Terminal-I building have to be completed (The Authority notes that this will be capitalized in FY 2024-25)
- Upgradation and Expansion related activities relating to Terminal-II are required to be carried out and commissioned. The Authority, during Airport visit on 2nd December 2023 by its Independent Consultants, noted that only preparatory works (Marking for preparing "as-built drawings" etc.) preceding the actual upgradation/ expansion activities were being undertaken. Hence, these activities of upgradation and expansions are expected to commence in January 2024 / February 2024 and complete by August 2025 (considering a timeline of 20 months in line with the initial time estimate of May 2023 as submitted by TKIAL), and not by FY 2024-25 as submitted by TKIAL in its MYTP.
- Post completion of Terminal-II upgrade, the passenger flow from Terminal-I is required to be shifted to Terminal-II and stabilized.
- Terminal-I re-development is expected to be carried out post upgradation and expansion of Terminal-II sometime after August 2025. New Terminal-I construction activity is expected to commence around January 2026. Considering a reasonable timeline of 2 years (as considered by TKIAL also in their submission i.e. From March 25 to Feb 27), Terminal-I is expected to be completed by December 2027 (FY 2027-28).

7.3.28 Based on the above, the Authority proposes not to consider the capitalization of New Terminal-I at this stage, as part of additions to RAB for the Third Control Period, as it is expected to be commissioned in the Fourth Control Period. If the new Terminal-I building is commissioned and put to use in the third control period, the same will be considered based on incurrence, at the time of true up, subject to evaluation of efficiency and reasonableness.

Cost estimates

7.3.29 The Authority notes that TKIAL has submitted a cost estimate of Rs. 1,51,000 per sqm for new Terminal-I together with certain costs relating to demolition and reconstruction of pavements. The Authority reiterates that TKIAL should ensure that the costs spent are reasonable and efficient and the selection of contractor should be in accordance with the relevance clauses of the Concession Agreement to ensure efficiency and reasonableness of the Capital Expenditure projects carried out.

7.3.30 To summarize, with respect to the capital expenditure proposal for the new Terminal-I building, the Authority notes that TKIAL should plan the area sizing for T-I, considering the traffic requirement and projections together with considering a modular construction, phase wise expansion of key functions such as baggage claim halls and processing areas, as detailed in Schedule B of Annex 1 of the Concession agreement and considering guidelines prescribed in IMG norms. The extract of Concession Agreement is reproduced below:

"The organization of the spaces and structural design of the terminal should be modular thereby allowing flexibility and ease of expansion. The terminal processor should allow for phase-wise development of key functions such as baggage claim halls and processing areas."

A.3 Upgradation & Expansion of Terminal Building (T-II) (Rs. 679.51 crores)

TKIAL's submission

7.3.31 Based on the overall Peak Hour passenger evaluation and the overall Terminal Capacity needed, together with the fact that a new Terminal-I building will be constructed, TKIAL has proposed to carry out certain upgradation and expansion to its existing Terminal-II building, which is in use since 2011. Details of works proposed to be executed in Terminal-II are as follows:

- Expanding the side of the terminal and provision of additional Baggage handling spaces (19,500 sq. m)
- Optimizing space within the terminal building to provide for additional passenger flows, together with additional 16 check-in counters and 10 self-bag drop facilities, upgraded Baggage Handling System to level 5, relocation of emigration area, introduction of a new terminal entry point with fast-track options, and an expanded immigration area with 21 counters.

7.3.32 TKIAL has submitted that the above modifications aim to optimize and expand T-II to meet traffic requirements until the new terminal T-I is commissioned.

7.3.33 Details of upgradation to Baggage Handling system proposed by TKIAL is as follows:

Table 97: Details of upgradation to Baggage Handling system proposed by TKIAL

Item Description	Existing	Proposed
Departure (outbound)		
Baggage Handling Capacity	System congestion and dieback is experienced beyond 400 bags per hour	3,000 Bags per Hour

Item Description	Existing	Proposed
	per check in line (1,200 bags/hr combined capacity)	
Redundancy		
Check-in	Limited, reversible conveyor between zone 1 & 2. No redundancy for zone 3	Complete flexibility in island setup with additional redundancy via 180-degree curves
Level-I X-ray lines	No redundancy	100% redundancy with load sharing and fallback capabilities
Level-3,4 feeder lines	No redundancy	Dual feeder lines to Level-3, 4 and new standalone X-ray machine.
Sortation area	NA	100% redundancy with common sortation
Check-in counters	38 Nos	55 Nos
SBD	Nil	10 Nos
Makeup positions	38 (3 carousels)	54 (4 carousels + 8 accumulation chutes)
Security decision time	20s (Level 2 screening)	90s (BCAS complaint Level 2A/2B screening)
Arrival (inbound)		
Single feed lines with inline X-ray machines	4 reclaim carousels	2 additional reclaims

7.3.34 TKIAL has submitted that the capacity will be insufficient in the interim to manage the requirements, till new Terminal-I is commissioned which will be managed with coordinated slot management and planning activities etc.

7.3.35 Cost estimation submitted by TKIAL for the upgradation and expansion is summarized as below:

Table 98: Cost details submitted by TKIAL for Terminal II upgradation and expansion

(Rs. in crores)

Particulars	UoM	Rate	Quantities	Amount
New Structure	Sqm	1,51,000	13,000	196.30
Expansion for Baggage Makeup Area	Sqm	70,000	6,500	45.50
Terminal Modification (Table 99 and Table 100)	Sqm	1,00,624	43,500	437.71
Total of T-II				**679.51**

7.3.36 Break-up of costs relating to Terminal Modification as submitted by TKIAL are as below:

Table 99: Cost estimate of Terminal Modification (Terminal-II) as submitted by TKIAL

(Rs. in crores)

S. No	Description of activities	Amount
1	Preliminary works	3.89
2	General items	2.59
3	Civil and structural	7.15
4	Architectural works	39.86
5	Mep works	
5.1	HVAC	0.74
5.2	Fire protection system	0.42
5.3	Fire alarm system	0.11
5.4	Electrical works	1.92
5.5	Plumbing	1.31
5.6	CCTV	10.27
5.7	Access control and display system	0.81

S. No	Description of activities	Amount
5.8	Network and Lan system	0.31
5.9	Lifts	0.52
6	Demolition works	2.01
7	Security equipment	10.00
8	Interior works	90.00
9	BHS works	125.60
10	Other general & allied capital works for terminal	47.21
	Total cost excluding GST	**344.71**
	GST -18%	62.05
	Total cost including GST	**406.76**

Table 100: Cost estimate of Terminal TII modification (Landside and Forecourt) as submitted by TKIAL

(Rs. in crores)

S. No	Description of activities	Landside	Forecourt	Total
1	Preliminary works	0.93	0.16	**1.08**
2	General items	0.62	0.10	**0.72**
3	Civil and structural works	9.34	0.31	**9.64**
4	Architectural works	0.00	1.34	**1.34**
5	Road works	2.73	0.00	**2.73**
6	Pathways	0.16	0.00	**0.16**
7	Traffic signage and road appurtenances	0.29	0.00	**0.29**
8	Landscaping works	0.03	0.00	**0.03**
9	MEP works			
9.1	Fire protection system	0.72	0.01	**0.73**
9.2	Electrical works	0.71	0.14	**0.85**
9.3	External storm water pipe / plumbing works with sanitary fixtures	0.42	0.25	**0.67**
9.4	Irrigation system	0.05	0.09	**0.14**
9.5	CCTV	0.17	0.07	**0.24**
9.6	Network and display system	0.07	0.32	**0.39**
9.7	Boom barrier system	0.19	0.00	**0.19**
9.8	EV charging station	0.34	0.00	**0.34**
10	Miscellaneous works	0.14	0.00	**0.14**
11	Demolition works	0.08	0.10	**0.17**
12	Landscape development at landside with irrigation and aesthetic elements (landscape aesthetic elements green wall, moss wall)	5.76	0.00	**5.76**
13	Construction of toilet at landside area of T-II	0.60	0.00	**0.60**
	Total cost excluding GST	23.35	2.88	**26.23**
	GST -18%	4.20	0.52	**4.72**
	Total cost including GST	**27.55**	**3.40**	**30.95**

TKIAL has submitted detailed BOQ estimates for the computation of the costs detailed above.

Authority's Examination regarding Upgradation & Expansion of Terminal Building (T-II)

<u>Need for expansion and upgradation of Terminal Building T-II</u>

7.3.37 The Authority has carefully reviewed the submissions made by TKIAL with respect to the need for upgrading and expansion of facilities at Terminal-II. The Authority notes that upgradation and expansion activity is required, in view of the increase in passenger traffic as well as the need to rebuild Terminal-I. In this regard, the Authority notes as follows:

i) During the Airport visit on 2nd December 2023, the Authority noted through its Independent Consultant that the initial marking and analysis activities to prepare an "As built" drawing were being carried out. TKIAL team informed the consultants that once this is completed and the drawings of the Terminal Building are prepared, those drawings will be used as a basis for the detailed planning of activities relating to the upgradation and expansion of terminal. TKIAL also informed that the appointment of consultants for executing the Terminal -II upgradation was underway.

ii) The existing Terminal-II was found to be well operational and as confirmed by TKIAL, needed minor repairs and modifications together with activities required to re-orient the flow and the need for a makeover of the Baggage handling system.

iii) The Authority understands that the current capacity of the Terminal Building is sufficient to handle the peak hour passenger load including managing the occasional peaks at other hours, both for arrivals and departures. The Authority notes that effective slot allocation strategies will play a crucial role in managing peak demands.

7.3.38 The Authority directs the Airport Operator to ensure that the expansion and upgradation activity be performed in a seamless manner, ensuring that only the essential activities are carried out in the upgradation process avoiding all capex that can be avoided/deferred.

Evaluation of cost estimates

7.3.39 The Authority examined the cost estimate submitted by TKIAL and noted that they are generally based on CPWD / PAR rates (exceptions to this noted have been detailed in the respective sections). The Authority also notes that TKIAL has considered 10% additional cost towards working in operational areas, in certain BOQ line items. However, the Authority is of the view that the provision made by TKIAL towards additional cost for working in operational area is quite high and therefore proposes to consider the allowance for extra cost over applicable rates for working in operational areas to the maximum allowable level, i.e. 5% as per the public works guidelines (generally where NOTAM is issued), in the BOQ items where TKIAL has claimed 10% additional cost.

7.3.40 The Authority notes that the rate estimates for Terminal-II Expansion & Upgradation and Upgradation of Terminal-I were prepared by TKIAL considering the market estimates and not as per DSR 2021 rates. Also, the Authority notes that the rate considered for the same item for Terminal-II is double of what has been considered for Terminal-I in certain cases as detailed below.

Table 101: Comparison of Rate estimates for Terminal-II Expansion and Upgradation of Terminal-I

S. No.	Description of Activities	Unit	Rate (Rs.)	
			T-I	T-II
3	**Civil and Structural Works**			
3.1	Soling	Cum	1,600	3,200
3.2	Backfilling	Cum	224	448
3.3	Disposal Of Unserviceable Material	Cum	427	854
3.4	Plain Cement Concrete	Cum	4,874	9,748
3.5	Reinforced Cement Concrete Works	Cum	5,583	11,166
3.6	Formwork	Sqm	600	1,200

S. No.	Description of Activities	Unit	Rate (Rs.)	
			T-I	T-II
3.7	Reinforced Works	Sqm	84	168
3.8	Structural Steel Works	Kgs	129	258
3.9	Roofing/ Canopy Works	Sqm	1,011	2,022
3.10	Waterproofing Works	Sqm	437	874

7.3.41 Authority's examination of various components of the cost estimates are given below:

i) New Structure – 13,000 sqm: TKIAL has proposed a cost of Rs. 1,51,000 per sqm for the new structure which the Authority proposes to evaluate as follows:

a. The Normative cost approved by the Authority vide its Order No. 07 / 2016-17 dated 6th June 2016 for Terminal Buildings is ₹ 65,000/- per sqm. The cost of following items of specification have been considered for analysis of the prescribed rate per sqm - cost of terminal building, air conditioning, fire-fighting system, water supply, sanitary, substation equipment for power supply including stand by system, passenger facilities viz FIDS, Furniture, Signages and Security surveillance, airlines related services viz Check-in, CUTE, CUSS and Baggage Reconciliation System, In-line X ray screening, Standalone screening, BHS for arrival and departure, Escalators, Elevators, Travelators and PBB are included. However, the cost of Elevated and other roads connected with the Terminal Building is not part of the Normative rate and has been considered separately. The cost of other items required for the Terminal Building, but which are not covered in the aforementioned list, will be derived separately and added to the overall cost of the project.

b. In this respect, the Authority notes that it has considered a normative cost of Rs. 1,00,000 per sqm for FY 2020-21 in some of the recent tariff orders of Ahmedabad, Lucknow, Patna, etc, based on the superior specifications, processes and the architectural features of modern Terminal Buildings. Further, the Authority feels that as the work on Terminal Building projected by TKIAL would be carried out over the Third Control Period, it would be reasonable and justifiable to derive the project cost based on inflation-adjusted normative cost up to FY 2026-27 (using WPI inflation index) to address the time value of money.

c. The Authority has derived the inflation adjusted normative rates for Terminal Building for the current Control Period by considering the rate of inflation as follows:

- FY 2021-22 –The Authority observes that FY 2021-22 was an exceptional year due to COVID-19 pandemic, wherein the inflation rate was 12.97%. However, during the period FY 2016-17 to FY 2020-21, the rate of inflation was in the range of 1.31% to 4.26%. Considering this extraordinary situation, the Authority feels that the inflation rate of FY 2021- 22 needs to be rationalized. Hence, instead of considering the inflation rate of 12.97% for FY 2021-22 (as per press release dated 18th April 2022 by Dept. for Promotion of Industry and Internal Trade, Government of India), the Authority has considered the average rate of inflation of FY 2020-21 (1.29%) and of FY 2021-22 (12.97%), which works out to 7.14%. The Authority has considered this average rate of inflation for FY 2021-22, in order to smoothen out the volatility in commodity price caused by COVID-19 pandemic and the supply side disruptions.
- FY 2022-23 – 9.42% (considered as per the data published by the Office of the Economic Advisor, Department for Promotion of Industry and Internal Trade) and

- FY 2023-24 to FY 2026-27 – 0.30% in FY 2023-24 and 3.80% thereafter (considered as per 85th Round of Survey of Professional Forecasters on macroeconomic indicators).
- In the Order No.07/2016-17 dated 13th June 2016 on "In the matter of Normative Approach to Building blocks in Economic Regulation of Major Airports – Capital costs Regarding" the ceiling cost mentioned is inclusive of taxes applicable at that time, which is 12%. Subsequently, GST has been introduced wherein the GST rate is 18%. Hence, the inflation adjusted normative cost is worked out below by considering the additional 6% resulting in a total GST rate of 18%.

The inflation adjusted normative costs, thus derived is presented in the below table:

Table 102: Details of Inflation-adjusted Normative rates derived by the Authority

Year	Inflation (%)	Inflation adjusted normative rates (Rs.)	Inflation adjusted normative cost @18% GST*
Base Amount		1,00,000	1,05,357
FY22	7.14%	1,07,140	1,12,880
FY23	9.42%	1,17,233	1,23,513
FY24	0.30%	1,17,584	1,23,883
FY25	3.80%	1,22,052	1,28,591
FY26	3.80%	1,26,690	1,33,477
FY27	3.80%	1,31,505	1,38,550

Note:
Inflation adjusted base amount (inclusive of 12% GST) (A) = Rs. 1,00,000 per sqm
*Inflation adjusted base amount (exclusive of 12% GST) (B=A*100/112) = Rs. 89,286 per sqm*
*Add GST @ 18% (refer para 7.3.41i) c) (C=B*18%) = Rs. 16,071 per sqm*
Normative cost including GST (D = B+C) = Rs. 1,05,357 per sqm

d. The Authority accordingly proposes to consider a cost of Rs. 1,33,477 per sqm as the normative cost for the expansion proposed instead of Rs. 1.51 lakhs per sqm considered by TKIAL. To this, an additional 5% towards allowance for extra cost over applicable rates for working in operational area as detailed in para 7.3.39 is proposed to be added making the total cost estimate to be Rs. 1,40,151, rounded to Rs. 1.40 lakhs per sqm. Accordingly, the total cost of the said expansion works out to Rs. 182.00 crores (Rs. 1.40 lakhs per sqm * 13,000 sqm).

ii) Expansion of Baggage Make-up area (BMA)

a. TKIAL has proposed a cost of Rs. 45.50 crores for the baggage make up area. This includes RCC structure, interior finishing works, MEP facilities, Information and Communication Technology (ICT) systems and landscaping cost.
b. A rate of Rs. 70,000 has been considered as the base for projecting the cost for 6,500 sqm of area.
c. The Authority notes that this cost is reasonable and within the overall normative range and hence proposes to consider the cost estimate submitted by TKIAL.

iii) Modifications/ upgradation within the existing Terminal building T-II

The Authority's examination based on the detailed evaluation done by the Independent Consultant appointed by the Authority is detailed below:

a. TKIAL has considered an overall estimate of Rs. 1,00,624 per sqm as the cost for the modifications/ upgradation to be carried out. The Authority notes that Terminal-II is a functional and operative terminal which has been operational for the past 12 years and in proper working condition. Hence, the estimated average rate of Rs. 1,00,624 appears to be very high, especially considering that the superstructure that has been built will be the same and only modifications within are being proposed.

b. The Authority notes that, in the estimation, TKIAL has not provided any break-up for Rs. 10 crores of Security related costs which was included as part of the estimate.

c. Certain works such as Air-conditioning, artwork, signages, security systems, IT etc. totaling to Rs. 16.16 crores were considered twice in the projections.

d. The amount of Rs. 125.59 crores has been considered for the Baggage Handling System. TKIAL has submitted the details of the enhancements proposed in BHS as detailed in Table 97 above. TKIAL has submitted that it has considered as Ball Park amount of Rs. 125 crores based on BHS cost awarded for Lucknow of Rs. 108 crores in 2021. TKIAL has submitted that this is also benchmarked with the cost for Navi Mumbai Airport. The Authority notes that detailed estimates for the Baggage Handling System have not been submitted by TKIAL at this stage.

e. The Authority notes that TKIAL has estimated re-doing of the granite tiles for the Terminal building (Rs. 31.70 Crore) as well as certain architectural works to the tune of Rs. 39.80 crores. Based on the information and details provided by the Airport Operator, AERA has appropriately rationalized the capital item as submitted by TKIAL and considered the estimate accordingly.

f. As the as-built drawings are currently being documented, the actual nature and extent of the modifications to be carried out in Terminal-II will be finalized only based on the documentation and analysis of the actual configuration of the systems available in Terminal-II. Considering the same, together with issues in cost estimation as noted above and in view of the very high per sqm cost for refurbishment activities, the Authority proposes to consider Rs. 75,000 per sqm as a tentative estimate for the refurbishment activities currently. The Authority directs TKIAL to ensure that only the activities that are mandatorily required be carried out currently and other activities considered for Terminal-II upgradation and refurbishment be deferred to later control periods. The costs proposed by the Authority will be reviewed on the basis of actuals at the time of determination of tariff for the next control period, based on evaluation of reasonableness and efficiency.

g. Accordingly, the cost works out to Rs. 326.25 crores (Rs. 75,000 per sqm * 43,500 sqm) which the Authority proposes to consider as an addition to RAB in the current control period.

h. The Authority also notes that the activities relating to the refurbishment have not yet begun and these will begin only after the initial assessment is complete and due evaluation and planning by the Consultant who is yet to be appointed by the Airport Operator. Hence, the Authority proposes to consider this cost as capitalization in FY 2025-26 instead of FY 2024-25.

7.3.42 TKIAL had subsequently shared the FAR as on 31st March 2023 and 30th September 2023 vide response to query dated 10th January 2024. On examination of the FAR shared, the Authority notes that capex amounting to Rs. 9.21 crores and Rs. 2.39 crores, relating to Terminal-II expansion and upgradation, have been capitalized in FY 2022-23 and FY 2023-24 respectively. The Authority proposes to consider the same in the respective years and proposes to capitalize the remaining portion of Rs. 553.75 crores (base cost) in FY 2025-26 as discussed in above paragraph.

7.3.43 Based on the above discussions, the adjustments to Terminal-II upgradation and expansion cost as proposed by the Authority is as given below:

Table 103: Cost proposed by the Authority towards T-II upgradation and expansion

(Rs. in crores)

Particulars	UoM	Rate	Quantities	Amount	Remarks
New Structure	Sqm	1,40,000	13,000	182.00	Inflation adjusted normative cost inclusive of 18% GST and 5% for extra over approved rates for working in operational areas
Expansion for BMA	Sqm	70,000	6,500	45.50	
Terminal Modification	Sqm	75,000	43,500	326.25	Tentative rate estimate considered
Total				**553.75**	

Note – The cost of Rs. 553.75 crores proposed by the Authority for T-II upgradation and expansion is arrived at by considering a reduction of Rs. 125.76 crores on TKIAL's submission of Rs. 679.51 crores (refer Table 98). Reduction in cost is on account of various factors as detailed above, including certain elements of costs being considered twice, reduction in allowance for extra over approved rates for working in operational areas etc.

7.3.44 Based on the detailed analysis with respect to A.1, A.2 and A.3 as given above, the Authority proposes to consider the cost towards upgradation of T-I, expansion of T-II and construction of new T-I as given below:

Table 104: Cost towards upgradation of existing T-I, expansion of T-II and construction of new T-I proposed by the Authority

(Rs. in crores)

S.No	Project Detail	Year of capitalization		Base Cost as per		Variance
A	**Terminal Building**	**TKIAL**	**Authority**	**TKIAL**	**Authority**	
A.1	Upgradation of Existing Terminal Building (T-I) (refer para 7.3.17)	2024	2025	18.70	18.70	-
A.2	Construction of New Domestic Terminal (T-I) (refer para 7.3.28)	2027	-	878.87	-	**878.87**
A.3	Upgradation & Expansion of Terminal Building (T-II) (refer para 7.3.41)	2025	2026	679.51	553.75	**125.76**
	Total			**1,577.08**	**572.45**	**1,004.63**

B. <u>Runway, Taxiway and Apron (Rs. 225.41 crores)</u>

7.3.45 The Authority notes that the costs proposed is mainly related to Airside infrastructure upgrades and improvements at Thiruvananthapuram International Airport including GSE Staging, Airside Drain Network, AVDGS replacement and installation, LED flood lights for Apron Lighting, Flexible Pavements Phase 2 and grading of critical areas.

7.3.46 The Authority notes that it is essential for maintaining the airport in compliance with DGCA regulations and as per international standards, such as ICAO Annex 14. The proposed airside development works are considered crucial to enhance safety, accommodate growth, and comply with relevant regulations.

7.3.47 The Authority notes that TKIAL has submitted the estimates of cost based on CPWD/PAR rates and noted that TKIAL has considered 10% additional cost towards working in operational areas, in certain BOQ line items. However, the Authority is of the view that the provision made by TKIAL towards additional cost for working in operational area is quite high and therefore proposes to consider the allowance for extra cost over applicable rates for working in operational areas to the maximum allowable level, i.e. 5% as per the public works guidelines (generally where NOTAM is issued), in the BOQ items where TKIAL has claimed 10% additional cost. The detailed list of BOQ for Runway, Taxiway and Apron works is given below:

Table 105: Cost towards Runway, Taxiway & Apron project as submitted by TKIAL

(Rs. in crores)

Sl. No.	Description of Activities	Amount submitted by TKIAL
B.1	**Airside/Landside Drain Network (3.5m W x 2 m D)**	
	Drainage (AS) including extra allowance for working in operational area	84.48
	Drainage (LS)	30.13
	Culvert	2.36
	Total Airside/Landside Drain Network	**116.97**
B.2	Development of RESA for RWY 32 including extra allowance for working in operational area	0.52
B.3	Grading of runway, taxiway strips and other critical areas in operational area.	16.50
B.4	GSE Staging - (Rigid Pavement)	2.31
B.5	**Sustaining / Minor Capex Works**	
	– Replacement of VDGS with AVDGS Laser unit for AVDGS for Bay nos 24, 25, 26, 5 & 6 and SITC of A-VDGS at Bay no. 44,45, 46 and 47 at Thiruvananthapuram International Airport.	3.41
	– Provision of LED flood lights for Apron Lighting	1.65
	– Flexible Pavements in Operational Area At Thiruvananthapuram International Airport (Phase 2 Ramp areas, approach roads and blast pad)	1.28
	– Grading of the runway strip	1.02
	Total Sustaining / Minor Capex Works	**7.36**
B.6	Expansion of T-II Apron	81.75
	Total of Runway, Taxiway & Apron (Other than T-II Apron expansion)	**225.41**

7.3.48 Authority's evaluation of each asset cost is detailed below:

B.1 Airside/Landside Drain Network (Rs. 116.97 crores)

7.3.49 TKIAL has submitted the cost of airside/landside drain network as follows:

Table 106: Cost of Airside/Landside Drain Network as submitted by TKIAL

(Rs. in crores)

Particulars	UOM	Rate	Quantity	Amount
Drainage Airside	R. Mt.	1,24,000	6,813	84.48
Drainage Landside	R. Mt.	91,000	3,311	30.13
Culvert	R. Mt.	52,000	454	2.36
Total				**116.97**

7.3.50 The Authority notes that the proposed drainage cost is towards covering the entire airport infrastructure with a proper drainage facility. TKIAL has submitted that there is no RCC drainage facility available in the existing Airside and Landside of the TRV airport.

7.3.51 Rate analysis has been prepared by TKIAL considering DSR 2021 rates as a base, adding 6.33% additional GST and 10% additional cost for working in operational area. The Authority proposes to reduce the estimate of extra cost over approved rates for working in operational area to 5% as detailed in para 7.3.39 on the BOQ items on which TKIAL has claimed 10% additional cost.

7.3.52 Accordingly, the Authority has recalculated and presented below the cost estimate as Rs. 113.43 crores for Airside/Landside drain works which the Authority proposes to consider as addition to RAB for the current period.

Table 107: Cost of Airside/Landside Drain Network as proposed by the Authority

(Rs. in crores)

Particulars	UOM	Rate	Quantity	Amount
Drainage Airside	R. Mt.	1,18,800	6,813	80.94
Drainage Landside	R. Mt.	91,000	3,311	30.13
Culvert	R. Mt.	52,000	454	2.36
Total				**113.43**

Note – The rate per meter of Rs. 1,18,800 proposed by the Authority for Drainage Airside is arrived at by considering a reduction from TKIAL's submission of Rs. 1,24,000 (refer Table 106) on account of revision of the extra cost over the approved rates for working in operational areas to 5% on certain BOQ items (refer para 7.3.51).

B.2 Development of RESA for RWY 32 (Rs. 0.52 crores)

7.3.53 TKIAL has estimated a cost of Rs. 1,150 per sqm for RESA based on DSR 2021 rates as a base, adding 6.33% additional GST and 10% additional cost for working in operational area. The Authority proposes to reduce the extra cost over approved rates for working in operational area to 5% as detailed in para 7.3.39 on the BOQ items on which TKIAL has claimed 10% additional cost. Accordingly, the Authority proposes to consider Rs. 0.50 crore as cost of Development of RESA.

B.3 Grading of runway, taxiway strips and other critical areas in operational area (Rs. 16.50 crores)

7.3.54 TKIAL has submitted that the Runway strip needs to be levelled and graded to achieve the necessary CBR value and to comply with DGCA requirement. TKIAL has estimated the cost of Excavation, backfilling, rolling, compacting and surface dressing.

7.3.55 The Authority notes that the break-up details submitted by TKIAL totals to only Rs. 15.60 crores instead of Rs 16.50 crores considered by TKIAL (a difference of Rs. 0.90 crores). Further, the Authority, on analysis of rates, notes that TKIAL has added Rs. 10 lakhs as Miscellaneous cost without any break-up. Also, TKIAL has considered a 10% additional cost for work in operational areas.

7.3.56 Subsequently, on review of the project status shared by TKIAL, the Authority notes that this project has been completed and the total cost incurred was Rs. 9.76 crores. Accordingly, the Authority proposes to consider this actual cost incurred of Rs. 9.76 crores as cost of Levelling and Grading of strip.

B.4 GSE Staging – Rigid Pavement (Rs. 2.31 crores)

7.3.57 TKIAL has considered a cost of Rs. 8,600 per sqm for an area of 2,687 sqm for GSE staging – rigid pavement. TKIAL has generally considered the cost based on DSR 2021 rates as a base, adding 6.33% additional GST and 10% additional cost for working in operational areas. However, the Authority noted that TKIAL has considered, in certain cases, MoRTH rates as the basis instead of CPWD DSR rates. The Authority propose to change the same and consider the rates as per CPWD DSR 2021 as these rates are lower than the MoRTH rates. The Authority also proposes to consider extra cost over approved rates for working in operational areas at 5% as detailed in para 7.3.39 on the BOQ items on which TKIAL has claimed 10% additional cost.

7.3.58 Accordingly, the Authority proposes to consider Rs. 2.18 crores as cost of GSE staging works.

Table 108: Cost proposed by the Authority for GSE Staging – Rigid Pavement

(Rs. in crores)

Particulars	Amount
Cost submitted by TKIAL for GSE Staging - Rigid Pavement	2.31
Less: Change in rates	0.08
Less: Extra cost over approved rates for working in operational areas considered at 5%	0.05

Particulars	Amount
Cost proposed by the Authority for GSE Staging - Rigid Pavement	**2.18**

B.5 Sustaining/Minor Capex Works (Rs. 7.36 crores)

7.3.59 The Authority notes that these are costs relating to replacement of VDGS with AVDGS, Relocation of Localizer, DVOR etc. The Authority finds this cost to be reasonable and the project is required considering the overall development of the airport.

7.3.60 The Authority review the FARs for FY 2022-23 and notes that Rs. 0.05 crores, Rs. 0.91 crores and Rs. 0.23 crores have been capitalized respectively for the projects replacement of VDGS with AVDGS, flexible pavements in operational area and grading of the runway strip. The Authority also notes that as per the status of projects shared on 10th January 2024, both the projects flexible pavements in operational area and grading of the runway strip have been completed and the total cost incurred was Rs. 1.03 crores for the former and Rs. 0.99 crores for the latter. The Authority proposes to consider both the cost capitalized and the total cost incurred as given above as addition to RAB of the current control period.

7.3.61 Accordingly, the Authority proposes to consider Rs. 7.08 crores as cost of Minor/sustaining capex works. However, the Authority notes that only 1% of the total project cost for the replacement of VDGS with AVDGS has been capitalized till 30th September 2023. Therefore, the Authority proposes to shift the capitalization of the project “Replacement of VDGS” from FY 2022-23 and FY 2023-24 as submitted by TKIAL to FY 2022-23 and FY 2024-25.

B.6 Expansion of Terminal-II apron (Area includes HOS, Transition pavements, demolition & new pavements) (Rs. 81.75 crores)

7.3.62 The Authority notes TKIAL submission of 21 NBE stands at International Building T-II which after expansion and upgradation will be converted into Integrated Terminal Building and will cater to both the international and domestic passenger traffic till the reconstruction of Terminal-I. The Authority notes that TKIAL currently has 13 stands available. With the movement of domestic traffic in T-II, while extra stands may be required, after reconstruction of T-I, the stands as proposed by TKIAL will be left unutilized. Thus, considering the fact that T-II will be utilized for both domestic and international passengers till the reconstruction of T-I but may revert to its position of being International Terminal only, post commissioning of new Terminal-I, the Authority proposes to consider half of the proposed stands submitted by TKIAL as part of Capital Expenditure.

Table 109: Detailed cost break-up for Expansion of Terminal-II Apron submitted by TKIAL

(Rs. in crores)

Particulars	Amount
Demolition Works	
Demolition of Rigid Pavement	6.95
Demolition of Existing Structure	1.22
Demolition of Existing Boundary wall	0.26
New Pavement	
Main Pavement (Rigid Pavement)	55.31
Transition pavement (Ramp between new and existing Apron)	5.06
Head of Stand Road	9.29
Drainage	
Drainage	3.65
Total cost	**81.75**

7.3.63 TKIAL submitted a cost estimate of Rs. 13,650 per sqm (including loading for demolition, additional cost for work in operational areas etc.) for expansion of apron. The Apron area considered for evaluation by TKIAL is 59,887 sqm. The Authority has, after detailed analysis, issued its Order on Normative cost vide Order No. 07/2016-17 on 13th June 2016 where in the normative cost was given as Rs. 4,700 per sqm. The Authority notes that the cost mentioned is inclusive of taxes applicable at that time, which is 12%. Subsequently, GST has been introduced wherein the GST rate is 18%. Therefore, the Authority has rationalized the normative cost submitted by TKIAL and computed the inflation adjusted normative cost by considering an additional 6% thereby resulting in total GST of 18% as given below:

Table 110: Inflation-adjusted normative rate considered for Apron

Financial Year	WPI Index*	Inflation %**	Inflation adjusted Cost	Inflation adjusted normative cost @18% GST
FY16	109.70		4,700***	4,952
FY17	111.60		4,781	5,038
FY18	114.90		4,923	5,187
FY19	119.80		5,133	5,408
FY20	121.80		5,218	5,498
FY21	123.40		5,287	5,570
FY22		7.14%#	5,664	5,968
FY23		9.42%	6,198	6,530
FY24		0.30%	6,217	6,550
FY25		3.80%	6,453	6,799
FY26		3.80%	6,698	7,057
FY27		3.80%	6,953	7,325

** Source: Office of The Economic Adviser, Government of India (htttps://eaindustry.nic.in)*
*** Source: Reserve Bank of India Publications (https://www.rbi.org.in/Scripts/Publications.aspx/publication=BiMonthly)*
**** Base amount as per Order No.7/2016-17 dated 13th June 2016 which is inclusive of prevalent tax of 12%*

Note:

Inflation adjusted base amount (inclusive of 12% GST) (A)	*= Rs. 4,700 per sqm*
*Inflation adjusted base amount (exclusive of 12% GST) (B=A*100/112)*	*= Rs. 4,196 per sqm*
*Add GST @ 18% (refer para 7.3.41i) i)c) (C=B*18%)*	*= Rs. 755 per sqm*
Normative cost including GST (D = B+C)	*= Rs. 4,952 per sqm*

 # Instead of considering the inflation rate of 12.97% for FY 2021-22 (as per press release dated 18th April 2022 by Dept. for Promotion of Industry and Internal Trade, Government of India), the Authority has considered the average rate of inflation of FY 2020-21 (1.29%) and of FY 2021-22 (12.97%), which works out to 7.14%

7.3.64 From the above table, the Authority observes that inflation-adjusted normative cost for apron is lesser than the normative cost proposed by TKIAL. Further the Authority notes that the current status of the proposed capex is in design stage, hence, the Authority proposes to shift the capitalization of Apron construction to FY 2024-25 and consider the normative cost of Rs. 6,799 per sqm (inclusive of 18% GST) as base for the computation of the cost for construction.

7.3.65 The Authority notes that TKIAL has included a 10% mark-up on costs for working in operational areas. The Authority is of the view that the provision made by TKIAL is quite high and therefore proposes to revise extra cost over approved rates for working in operational area to 5% as detailed in para 7.3.39 on the BOQ items on which TKIAL has claimed 10% additional cost.

7.3.66 With necessary adjustments as proposed above, the cost for expansion of Apron proposed to be considered is as follows:

Table 111: Cost towards Terminal-II Apron proposed by the Authority

(Rs. in crores)

Particulars	Ref	Rate (Rs.)	Quantities	Amount
Expansion of Terminal-II apron (Area includes HOS, Transition pavements, demolition & new pavements)				
Normative cost Including GST	A	6,799	59887	40.71
Cost items which were not part of Normative Costing				
Demolition	B			8.20
Excavation till Sub-Grade	C			7.53
Additional PQC	D			7.28
Aeronautical Ground Lighting	E			6.27
Drainage	F			3.47
Extra cost over approved rates for working in Operational areas @5%	G			2.40
Total	**H=Sum(A to G)**			**75.87**
Proposed by the Authority	I=H*50%			37.94
Submitted by TKIAL (Table 109)	J			81.75
Variance	**K=J-I**			**43.81**

7.3.67 Based on the above, the cost estimate proposed to be considered by the Authority is as follows:

Table 112: Cost towards Runway, Taxiway and Apron proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalization		Base Cost as per		Variance
		TKIAL	Authority	TKIAL	Authority	
B.1	Airside/Landside Drain Network (3.5m W x 2 m D)	2027	2027	116.97	113.43	3.55
B.2	Development of RESA for RWY 32	2025	2025	0.52	0.50	0.02
B.3	Grading of runway, taxiway strips and other critical areas in operational area.	2024	2024	16.50	9.76	6.74
B.4	GSE Staging - (Rigid Pavement)	2025	2025	2.31	2.18	0.13
B.5	Sustaining / Minor Capex Works	2023, 2024	2023, 2024, 2025	7.36	7.08	0.28
B.6	Expansion of Terminal-II apron (Area includes HOS, Transition pavements, demolition & new pavements)	2024	2025	81.75	37.94	43.81
	Total			**225.41**	**170.87**	**54.54**

C. <u>Runway Recarpeting (Rs. 78.43 crores)</u>

7.3.68 The Authority notes that in FY 2016-17, AAI completed the runway recarpeting. TKIAL has also submitted that a committee was formed for assessing runway's condition to recommend necessary measures. The committee's report dated 19th June 2023 highlighted wet patches and pavement issues, particularly at specific offsets along the runway.

7.3.69 Thus, to improve the condition of the runway, TKIAL had estimated an amount of Rs. 100 crores (including FA & IDC) under OPEX as ‘Amortization of runway recarpeting expenses’ for a period of five (5) years wherein Rs. 20 crores along with return on unamortized portion has been claimed for each year, starting from FY 2024-25 of the Third Control Period. The project involves milling the top DAC layer, replacing it with a designed DAC layer, and upgrading primary feeder cables and HIRL fittings with energy-efficient LED fittings, along with an improved earthing system. This will restore the top layer and address any cracks, ultimately restoring the previous PCN value.

7.3.70 As the PCN value does not increase after the recarpeting exercise, the Authority proposes to consider the runway recarpeting expenses under Operation and Maintenance expenses in the current control period as detailed in Authority's Order No. 35/2017-18 dated 12th January 2018 in the matter of 'Determination of Useful Life of Airport Assets'. Accordingly, the Authority has examined the same under Operation and Maintenance expenses (refer para 10.2.62)

D. GA Terminal Building, Apron & Taxiway (Rs. 30.36 crores)

7.3.71 TKIAL has submitted that the General Aviation passengers are using the domestic terminal and there is no dedicated aircraft parking space and that as the GA traffic grows (as per the traffic forecast), a General Aviation Terminal for dedicated use is required. The built-up area of the new proposed terminal proposed by TKIAL is approximately 680 Sqm.

7.3.72 The Authority, upon analysis of data provided by TKIAL, observed that there were, on average, only 18 GA aircraft movements per month during the period from April 2023 and December 2023. The Authority notes that such few numbers of GA aircraft can be serviced from the existing infrastructure at TRV, including the Domestic and International passenger terminals. Thus, in the Authority's view, there is no justification to build a separate dedicated GA terminal along with associated apron and taxiways.

7.3.73 Considering the relatively low frequency of GA aircraft movements at TRV, the Authority proposes to not consider the construction of a separate GA terminal, apron and taxiway at this time.

E. CNS/ATM (Rs. 290.43 crores)

E.1 Airside Improvement Work (Rs. 6.94 crores):

7.3.74 TKIAL has submitted that:

"As per the master plan, to accommodate the remote aircraft stands for T-I, we need to relocate the current MSSR. The relocation of Mono-pulse Secondary Surveillance Radar (MSSR) is essentially required to ensure safe, smooth, and efficient operation of the expanded airfield and development of New Remote stand for Terminal 1….

The current location of LLZ32 comes within the footprint of the proposed RESA extension for RWY32. Hence it is pertinent to shift the LLZ32…

As we intent to make RWY14 as ILS from simple approach, provision of Localizer & Glide Path for RWY 14 is proposed. This provision will help better reliable guidance for approaching aircraft on RWY 14….

There is a need to shift the DVOR as the same falls in the footprint of the proposed GA apron development north of the existing Terminal 1…

Surface movement radar (SMR) … Currently, TIA does not have this radar at the airport. Thus, this project is proposed, and the radar shall be installed to ensure safe, smooth, and efficient operation of the expanded airfield…"

7.3.75 The Authority notes that the proposals submitted by TKIAL are reasonable and required considering the overall development activities planned for the airport. However, the Authority notes that TKIAL has considered 10% additional cost for working in operational areas, for construction of the SMR facility. The Authority proposes to reduce the same to 5% as detailed in para 7.3.39 on the BOQ items on which TKIAL has claimed 10% additional cost. Accordingly, the Authority proposes to consider a cost of Rs. 6.91 crores towards Airside Improvement Work.

7.3.76 Further, as per the status of projects as of December 2023 submitted by TKIAL, the Authority notes that the current status of the proposed capex is still under planning stage, hence, the Authority proposes to shift the capitalization for Relocation of DVOR, MSSR facilities, and new SMR facility to FY 2024-25 and considering the capitalization of other items as per TKIAL's submission.

Table 113: Cost proposed by the Authority for Airside Improvement Works

(Rs. in crores)

Particulars	TKIAL submission	Change in extra cost for working in operational areas	Authority's Proposal
Relocation of LLZ32	0.20	-	0.20
Provision of LLZ14 & GP14	0.41	-	0.41
Relocation of DVOR	0.31	-	0.31
MSSR Facilities	5.41	-	5.41
SMR Facilities	0.61	0.03	0.58
Total	**6.94**	**0.03**	**6.91**

E.2 ATC Tower and Technical Block (<u>Rs. 283.49 crores</u>):

7.3.77 The Authority notes TKIAL's rationale for the ATC tower and technical block as follows:

"Existing ATC Tower is located near the domestic terminal T1, which has a height of 33 m. To pave way for other infrastructure expansion works and to have a clear line of sight to all the movement area the ATC tower needs to be suitably relocated. The existing ATC Tower has constrained visibility to the proposed airside developments and some parts of the existing runway. The AAI has already proposed an alternate location for ATC Tower near T2, which is marked as a carved-out area. The proposal is to relocate the ATC Tower and Technical Block near Terminal-II…"

7.3.78 The Authority has reviewed the proposal of TKIAL on airside improvement works and construction of ATC tower and technical block. The Authority has reviewed the terms and conditions of CNS/ATM agreement between AAI and TKIAL, as detailed below.

"4. OBLIGATIONS OF THE AUTHORITY
4.1 AAI services
4.1.1 AAI shall at all times (including by means of multi-shift operations as required over 24 (twenty four) hours each day), during the term hereof, in accordance with the relevant ICAO Documents and Annexes and DGCA Civil Aviation Requirements at its own cost and expense:
(a) Provide the CNS/ATM services as specifically provided in schedule 2;
(b) Maintain the AAI Equipment including carrying out periodic flight calibration of the AAI Equipment and other tests;
(c) Upgrade and/ or augment the AAI Equipment as may be necessary from time to time: (a) to enable AAI to provide the relevant AAI Services at the Airport; (b) to comply with the relevant ICAO Documents and Annexes and DGCA Civil Aviation Requirements; and (c) as a result of Expansion; and
(d) Deploy such manpower as may be required to perform the AAI services.
4.1.2 AAI shall relocate AAI Equipment on the concessionaire's request on account of Expansion, at the Concessionaire's cost and expense, provided such relocation does not adversely affect AAI' s obligations under this Agreement:

Provided that AAI may relocate AAI Equipment at its discretion, subject to the condition that such relocation does not affect the Concessionaire's obligations under the Concession Agreement and/ or smooth operation of the Airport."

7.3.79 The Authority notes that TKIAL has submitted a letter dated 13th September 2023 issued by Officer in-charge of AAI at TRV Airport requesting for the new ATC Complex/Technical block in view of life of building having expired and that there is no sufficient space for installation of various equipment. The letter also states that the ATM automation system at TRV is due for replacement which will be installed in the new ATS block. TKIAL has also informed the Authority that discussions have been underway with AAI on the same on the detailing of the area allocations etc.

7.3.80 TKIAL vide reply to query dated 14th June 2023 had submitted the BOQ for the ATC tower and technical block. On examination of the BOQ, the Authority notes that the total cost of the project was Rs. 288.91 crores as against Rs. 283.94 crores in the MYTP submission. The detailed breakup of the cost of ATC block and tower as per the BOQ is given below.

Table 114: Cost estimate of ATC block and tower submitted by TKIAL

(Rs. in crores)

Particulars	Amount
Total height (in metres)	64.50
Area for ATC block (in sqm)	11,136
Area for ATC tower (in sqm)	1,628
Cost of construction before indexation (A)	196.93
Loading for working in operational area at 5% (B)	9.84
Others including GST (C)	82.12
Total Cost (A+B+C)	**288.91**

7.3.81 The Authority notes that TKIAL has submitted that ATC tower construction is included as part of Schedule to the Concession Agreement (Schedule U). Authority notes that while the cost has been considered by TKIAL in its projections, the design of the building is still under discussion with AAI and the timing of operationalization of the building is dependent on AAI's plans for procurement and provision of equipment at the building. Also, the Authority notes that TKIAL has submitted a letter in this regard received from the AAI team located at TKIAL airport. However, the decision is required to be taken and approved at appropriate levels at AAI Central Headquarters, involving the relevant department heads, Member – ANS etc. Hence, the Authority proposes to consider the costs incurred on the same, at the time of true up based on the actual completion of the building after due approvals and subject to the reasonableness and efficiency of the cost spent on the project.

7.3.82 Based on the above, the cost estimate proposed to be considered by the Authority are as follows:

Table 115: Cost towards CNS/ATM proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalization		Base Cost		Variance
		TKIAL	Authority	TKIAL	Authority	
E.1	Airside Improvement Works	2024, 2025	2024, 2025	6.94	6.91	0.03
E.2	ATC Tower and Technical Block	2026	-	283.49	-	283.49
	Total			**290.43**	**6.91**	**283.52**

F. Cargo Complex & Equipment (Rs. 81.08 crores)

F.1 Interim ICC and DCC equipment (Rs. 7.89 crores)

TKIAL submission

7.3.83 TKIAL has proposed constructing a new International Cargo Facility (refer para 7.3.86). In the interim period, TKIAL aims to provide cargo operations from a temporary facility.

7.3.84 TKIAL has proposed interim improvements to the Interim Cargo facility arrangements together with the purchase of cargo equipment with a total estimated cost of Rs. 7.89 crores. TKIAL has excluded Rs. 2 crores worth of cargo equipment as they are expected to be utilized in New Cargo Facility as stated in their responses to query dated 8th August 2023. The proposed estimate encompasses provisions for additional warehouse space and various ancillary works including the procurement of equipment such as forklifts, Door Frame Metal Detectors (DFMDs), Explosive Trace Detectors (ETDs), X-ray Baggage Inspection Systems (XBIS), among others. TKIAL has provided the details of cost as follows:

Table 116: Cost estimate for ICC and DCC equipment and improvement submitted by TKIAL

(Rs. in crores)

Particulars	Amount
Civil works for Export Cargo Terminal	0.98
Equipment for Export Cargo Terminal	8.08
Equipment for Domestic Cargo Terminal	0.83
Cargo Equipment submitted for TCP by TKIAL	**9.89**
Less: Equipment expected to be utilized in the new cargo facility	2.00
Cargo Equipment submitted for new ICC by TKIAL	**7.89**

Authority's Examination regarding Interim ICC and DCC equipment

7.3.85 TKIAL vide response to query date 10th January 2024 had submitted the status of all projects including Interim ICC and DCC equipment. On review of the same, the Authority notes that the project has been completed and that the actual cost of the project was Rs. 6.50 crores. On review of FAR shared on 10th January 2024, the Authority notes that only Rs. 3.47 crores of the actual cost have been capitalized till 30th September 2023. Hence, the Authority proposes to consider the capitalization of Rs. 3.47 crores in FY 2022-23 as per FAR and the remaining portion of Rs. 3.03 crores in FY 2024-25. The Authority will review the actual costs incurred and the date of capitalization for this project at the time of true-up of Third Control Period subject to evaluation of efficiency of costs and reasonableness.

F.2 International Cargo Centre (ICC) (Rs. 73.19 crores)

TKIAL submission

7.3.86 TKIAL has submitted that it proposes to develop a new International Cargo Centre closer to Terminal-II, based on its evaluation of the potential for cargo operations in TRV. TKIAL has submitted that the current interim facility would not be adequate to accommodate the plans for development of Cargo and hence, a new International Cargo Centre is proposed to be constructed by TKIAL. Projections indicate an annual cargo handling capacity of approximately 25,000 tonnes, a substantial increase from the current capacity of the Interim Cargo Terminal, which stands at 6,000 tonnes per annum. This project is mandated under Clause 19.4 of the Concession Agreement.

7.3.87 TKIAL has formulated plans for the construction of a comprehensive International Cargo Centre, encompassing a total area of 5,000 square meters dedicated to warehouse space, along with 5,756 square meters for parking and trucking areas.

7.3.88 The break-up of the cost proposed by TKIAL towards construction of International Cargo Centre is given in the table below:

Table 117: Detail break-up of construction cost of International Cargo Centre as submitted by TKIAL

(Rs. in crores)

Particulars	Amount
Demolition Works	
Demolition of Flexible Pavement	0.06
Demolition of Existing Structure	0.17
Demolition of Existing Boundary wall	0.03
New Pavement	
Shoulders (Flexible Pavement)	1.28
Head of Stand Road	0.90
Structure	
New Structure (Cargo South)	36.15
Annex building (within the warehouse) (Truck Parking)	5.17
Site Circulation	5.87
MHE equipment	21.55
Equipment expected to be utilized in the new facility (refer Table 116)	2.00
Total	**73.19**

7.3.89 Details of MHE equipment cost submitted by TKIAL is as follows:

Table 118: Department-wise details of MHE equipment cost submitted by TKIAL

(Rs. in crores)

Dept.	Equipment	Item Cost
Operations	Forklift (3 Ton, Battery Operated)	0.44
	Forklift (5 Ton, Battery Operated)	0.40
	Electric TUG with battery	0.44
	Pallet Dolly 10 Feet	0.44
	Ball Mat (Manual) - in Sqm	3.00
Security	ETD	0.60
	XIBS (100x100 DV)	1.44
	XIBS (145x180 DV)	1.80
	Under Vehicle Scanner & ANPR	0.40
	Dome Camera with Switching and Accessories	0.45
	PTZ Camera Outdoors with Switching and Accessories	0.40
	Base License	0.40
	Radioactive Detector	3.00
Admin	Cabins	1.13
IT	Handheld Devices	0.40
	Others	6.82
	Total	**21.55**

Authority's examination regarding International Cargo Centre (ICC)

7.3.90 The Authority has examined the details of the cost estimate in detail together with the supporting details provided by TKIAL. The unit rate for the cargo terminal works out to Rs. 99,272 per sqm (including Truck parking and site circulation and excluding MHE equipment).

7.3.91 The Authority notes that this is higher than that approved for Lucknow airport where the estimate was Rs. 60,300 per sqm. The Authority therefore proposes to consider Rs.60,300 per sqm, i.e., the rate per sqm allowed in Lucknow, for computing the cost of cargo terminal work. Accordingly, the revised break-up of the cost proposed by the Authority towards construction of the International Cargo Centre is as given in the table below.

Table 119: Detail break-up of construction cost of International Cargo Centre as proposed by the Authority

(Rs. in crores)

Particulars	Amount
Cargo terminal work (Rs. 60,300 per sqm * 5000 sqm)	30.15
MHE equipment	21.55
Equipment expected to be utilized in the new facility (refer Table 116)	2.00
Total	**53.70**

7.3.92 Based on above, the cost estimates considered by the Authority is as follows:

Table 120: Cost towards Cargo Complex and Equipment as proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalization		Base Cost as per		Variance
		TKIAL	Authority	TKIAL	Authority	
F.1	Interim ICC and DCC equipment	2023	2023, 2025	7.89	6.50	**1.39**
F.2	International Cargo Centre (ICC)	2026	2026	73.19	53.70	**19.48**
	Total			**81.08**	**60.20**	**20.87**

7.3.93 During the Airport visit by the Independent Consultants appointed by the Authority, it was observed that the cargo operations of AAICLAS have currently been suspended at the airport. The Authority expects AAICLAS to resume its operations at the Airport, to ensure competitiveness of the Cargo operations which is always encouraged by AERA.

G. Fuel Infrastructure & Hydrant System (Rs. 335.62 crores)

G.1 IOCL & BPCL Asset procurement (Rs. 10.00 crores) and G.2 Deadstock of Product (Rs. 5.00 crores)

7.3.94 The Authority notes that as per Clause 19.3 of Concession Agreement, the Concessionaire is mandated to provide the infrastructure required for operation of fueling services on an equal access basis for all the aircrafts at the Airport in a transparent and non-discriminatory manner. Such infrastructure shall include tank farms and associated facilities. In this respect, the Authority observes that presently IOCL, BPCL and HPCL are supplying ATF with storage facilities of 950KL, 850KL, and 140KL respectively.

7.3.95 The Authority notes that TKIAL has planned to acquire the facilities of the existing players in order to give equal access to all the aircraft. TKIAL has submitted a total cost of Rs. 10 crores under this head. TKIAL has submitted the estimated cost of purchase of assets from IOCL and BPCL based on experience in Ahmedabad and Lucknow where they had purchased OMC assets. In Ahmedabad the OMC assets were purchased for Rs. 11 crores (refer para 7.3.166 of TCP tariff order) and in Lucknow, they were purchased for Rs. 6 crores (refer para 7.3.7 of the TCP tariff order). The Authority is of the view that the actual amount payable for acquisition may vary based on discussion and negotiation with respective Oil Marketing Companies. Based on review and analysis of the capacities of existing players in all the three airports i.e., Thiruvananthapuram, Ahmedabad and Lucknow, the Authority has estimated the cost for asset procurement as Rs. 9.51 crores and proposes to consider the same during the current control period.

7.3.96 The Authority also observes that TKIAL has projected requirement of dead stock (minimum level of fuel that needs to be maintained at all times in the storage tanks, pipelines and hydrant systems for uninterrupted operations of the fuel farm) for Rs. 5 crores. The Authority finds this to be reasonable and proposes considering the said cost, thereby resulting in a total Capital Expenditure of Rs. 14.51 crores. The Authority understands that this project is currently under planning stage and hence proposes that the capitalization be considered in FY 2024-25, rather than FY 2023-24 as proposed by TKIAL.

G.3 Equipment cost (Rs. 14.50 crores)

7.3.97 The Authority notes that TKIAL has plans to enhance its fuel infrastructure facility for smooth conduct of its operations. In the immediate plan, TKIAL intends to acquire existing assets from Indian Oil Corporation Limited (IOCL) and Bharat Petroleum Corporation Limited (BPCL) to establish an Open Access facility. This facility will primarily consist of Fuel Farm tanks and related infrastructure, aimed at optimizing fuel handling capabilities. Additionally, TKIAL has planned to procure 12 refuelers/bowsers. These specialized vehicles will be responsible for the safe and efficient transportation of Aviation Turbine Fuel (ATF) from the Fuel Farm storage tanks to aircraft located at various points on Apron.

7.3.98 Considering the operational requirements of the Airport, the Authority proposes to consider the cost of Rs. 14.50 crores as submitted to be part of the additions to RAB in the current control period. The Authority understands that this project is currently under the planning stage and hence proposes that the capitalization be considered in FY 2024-25, rather than FY 2023-24 as proposed by TKIAL.

G.4 Fuel Hydrant line (Rs. 167.57 crores)

7.3.99 The Authority notes that TKIAL has proposed a Fuel Hydrant line spread across 7 Kms amounting to Rs. 167.57 crores. The Authority notes that the currently Domestic terminal handles a maximum of two flights per hour, while the international apron manages a maximum of three to four flights per hour. Given the low density of flights, using fuel bowsers is optimal for re-fueling needs. Therefore, the proposed underground Hydrant refueling system, incurring a significant expense of Rs 167.57 crores, is considered avoidable at this stage. Hence, the Authority proposes not to consider the same for this current control period.

G.5 Fuel Storage Farm (Rs. 138.55 crores)

7.3.100 The Authority observes that TKIAL has projected to build a new facility of approx. 5,000 KL which includes storage Tanks, Admin Facilities, Refilling / offloading area, Pit Flushers, dead stock etc. TKIAL has submitted that the new facility will be operational during FY 2025-26.

Table 121: Comparison of existing Fuel Storage Capacity vis a vis capacity proposed by TKIAL

Particulars	Capacity in KL
Existing	
IOCL	950
BPCL	850
HPCL	140
Total	**1,940**
Proposed by TKIAL	
New Fuel Storage Farm	5,000
% Increase in capacity	*158%*

Table 122: Fuel Storage requirement estimate submitted by TKIAL

	FY 23	FY 24	FY 25	FY 26	FY 27
ATMs in '000					
Domestic	12.3	15.4	17.6	19.0	20.6
International	13.0	16.3	18.9	20.8	22.1
Total	**25.3**	**31.7**	**36.5**	**39.8**	**42.7**
Fuel throughput in KL		1,58,540	1,82,520	1,99,115	2,13,425
Fuel throughput per ATM (KL/ATM)		5.00	5.00	5.00	5.00
KL Estimate for 10 days (Total Fuel throughput * 10 days / 365 days)		4343	5000	5455	5847

7.3.101 The Authority notes that the new greenfield facility is planned to have capacity for serving a minimum of 10 days, without recouping, for the expected demand of FY 2026-27. TKIAL has submitted the following as the basis for arriving at 10 days.

Table 123: Recommended ATF Storage Days as per the MYTP submitted by TKIAL for the Third Control Period

S. No.	Potential Purpose	Average Stock Required	Maximum Stock Required	Difference
1	Product readiness, storage	2	2	-
2	Product storage and settling	1	2	1
3	Product receipt, Logistic contingency, OMC's issue	-	5	5
4	**Total**	**3**	**9**	**6**
5	85% of Total Difference	5.1		
6	**Recommended ATF Storage Days**	**8.1**		

7.3.102 The Authority notes that the existing fuel farm capacity at TRV is 1,940 KL. TKIAL has submitted that the facilities are planned considering a longer term of 10-year planning timeline and that multiple storage tanks are required considering the need to maintain quality and testing as per the protocol defined.

7.3.103 On examination of the breakup of the cost of Rs.138.55 crores, the Authority notes that Rs. 15 crores relate to dead stock required for the new fuel farm facility. The Authority finds this to be reasonable and proposes to consider the same as additions to RAB during the current control period.

7.3.104 The Authority also notes that the remaining cost of Rs. 123.55 crores include a 10% additional cost for working in operational areas. However, the Authority proposes to reduce the same to 5% as detailed in para 7.3.39 on the BOQ items on which TKIAL has claimed 10% additional cost.

7.3.105 Therefore, the Authority proposes to consider a cost of Rs. 132.43 crores which is inclusive of Rs. 117.43 crores towards new fuel farm facility as determined after modifying the estimate of extra cost over approved rates for working in operational area and Rs. 15 crores towards dead stock required for the new fuel farm facility. The Authority proposes to consider the capitalization of this facility in FY 2025-26 as submitted by TKIAL.

Table 124: Cost proposed by the Authority for Fuel Storage Farm

(Rs. in crores)

Particulars	Amount
New fuel farm facility (refer para 7.3.104)	123.55
Dead stock required for the new fuel farm facility (refer para 7.3.103)	15.00
Total cost submitted by TKIAL for Fuel storage farm	**138.55**

Particulars	Amount
Less: Change in extra cost over approved rates for working in operational area	6.12
Cost proposed by the Authority for Fuel storage farm	**132.43**

7.3.106 Based on the above analysis and proposals, the fuel infrastructure and hydrant system cost proposed to be considered by the Authority for the Third Control Period is as presented below:

Table 125: Cost of Fuel Infrastructure & Hydrant System proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalisation		Base Cost		Variance
		TKIAL	Authority	TKIAL	Authority	
G.1	IOCL & BPCL Asset procurement	2024	2025	10.00	9.51	0.49
G.2	Dead stock of Product	2024	2025	5.00	5.00	-
G.3	Equipment cost	2024	2025	14.50	14.50	-
G.4	Fuel hydrant line	2026	-	167.57	-	167.57
G.5	Fuel storage farm	2026	2026	138.55	132.43	6.12
	Total			**335.62**	**161.44**	**174.18**

H. Boundary Wall (Rs. 36.49 crores)

7.3.107 TKIAL in its submission has stated the following:

H.1 Airport Boundary Wall (Rs. 4.52 crores):

"In view of the proposed land acquisition for implementation of projects like clearing of Basic strip north and east of RWY 14, full RESA development for RWY32, etc. the existing airside boundary wall to the North and East of RWY 14 needs to be re-constructed. Similarly, some of the existing airport site area which were not utilized earlier need to be included within airside area, and therefore new airside boundary wall needs to be built at these locations. This project development, however, is subject to the land acquisition/availability at the development side… The total length of new wall proposed is approximately 1,624m."

H.2 New Airside Perimeter after shifting boundary (Rs. 6.05 crores):

"The perimeter road towards North-East of RWY 14 falls within the basic strip of Runway 14-32. Due to this non-compliance of basic strip on RWY 14, perimeter road needs to be shifted towards cityside to clear the basic strip. This project development is subject to land acquisition/availability. The other perimeter road that needs to be developed is to the southwest of RESA 14. This development involves construction of approx. 13,812 sqm road pavement works."

7.3.108 The Authority notes the need for the project from an airport safety and security perspective. Further, the Authority also notes that the project execution is contingent upon the acquisition or availability of land at the Airport. Therefore, the Authority proposes not to consider the capital expenditure for boundary wall and new Airside Perimeter in the Third Control Period and shift the same to the next control period(s) once the land is made available for the construction of boundary wall by the airport operator.

H.3 Perimeter Intrusion Detection System (PIDS) (Rs. 25.92 crores):

7.3.109 The Authority notes that TKIAL has proposed installation of Perimeter Intrusion Detection System (PIDS) on the airside boundary wall to strengthen the airport's security infrastructure. TKIAL has submitted that CISF vide letter dated 9th July 2022 has noted the need for PIDS. The extract the letter is as below:

"… Moreover, we currently have an approximate perimeter wall spanning approximately 11 kilometers. It is imperative that the Perimeter Intrusion detection systems (PIDs) be installed in accordance with the latest

specifications outlined by the Bureau of Civil Aviation Security (BCAS). Therefore, we kindly request you to initiate the installation procedure, ensuring strict adherence to the BCAS specifications for a seamless and compliant deployment…"

7.3.110 TKIAL has submitted an estimate of Rs. 20,500 per meter for the equipment installation together with the cost of fixing the structure to the wall for PIDS (this rate also includes 10% for extra cost over approved rates for working in operational area) for a total area of 12,645 meters.

7.3.111 The Authority notes that CISF has requested for PIDS to be installed and that BCAS, in its circular issued in June 2022, has stated that all hyper-sensitive airports in India needs to have PIDS installed by December 2023. However, TRV is categorized as a sensitive airport and not as hyper-sensitive.

7.3.112 Also, TKIAL has proposed the construction of a new boundary wall (Refer H.1 Airport Boundary Wall) in certain locations at the airport. The Authority notes that while the PIDS implementation will be subject to the mandate of BCAS, this can be executed only after completion of changes to the perimeter structure and the new boundary wall, in order to ensure that work relating to PIDS is efficiently carried out.

7.3.113 Therefore, the Authority is of the view that the project on PIDS may be executed in a phased manner once the perimeter structure and the new boundary wall is firmed up, as it would help in avoiding infructuous expenditure. Hence, the Authority proposes not to consider the same as part of RAB for this current control period. The Authority will review the same at the time of true up, during determination of tariff for fourth control period, subject to evaluation of efficiency and reasonableness.

I. Other Buildings (Rs. 69.93 crores)

I.1 New Airside Security Gates (Rs. 2.13 crores),
I.2 Security equipment for gates (Rs. 1.52 crores) and
I.3 Upgradation of Airside gates - Crash Gates, Morcha construction at gate 6,10,11 (Rs. 2.32 crores)

7.3.114 TKIAL has submitted that the proposed airfield developments for Terminal-I and Terminal-II, including apron expansions and other airside projects, necessitate the establishment of three new Airside Security Gates, security equipment for the gates and upgradation of the existing gates 6,10,11 (Crash Gates, Morcha construction). These gates play a crucial role in ensuring the connectivity and safety of the airfield. The significance and purpose of these proposed gates is to enhance the connectivity between different sections of the airfield, provide controlled entry and exit points for essential services, including ground handling operations, maintenance activities, and emergency response teams. These gates act as a critical layer of security to safeguard against unauthorized access to sensitive areas of the airfield. Due to the same, the submission of TKIAL towards security gates is proposed to be considered.

7.3.115 The Authority also notes that TKIAL has considered the purchase of the Security equipment Baggage Dual view X – Rays, DFMD and HHMD for the new gates at estimated cost of Rs. 1.52 crores. The Authority finds the costs to be reasonable and proposes to consider the same as additions to RAB during the current control period.

7.3.116 TKIAL has considered the upgradation of Airside gates at an estimated cost of Rs. 2.32 crores but has not shared the detailed breakup for the same. The Authority notes that the estimated costs of Rs. 2.32 crores for the upgradation of Airside gates were on the higher sides and hence proposes to consider Rs. 0.50 crores per gate, as allowed in Ahmedabad and Lucknow airports, for capitalization in the current control period.

7.3.117 Accordingly, the Authority proposes to allow the expenditure of Rs. 4.52 crores as detailed below.

Table 126: Cost for Airside Security Gate proposed by the Authority

(Rs. in crores)

Sl. No	Project Detail	Year of capitalization		Base Cost		Variance
		TKIAL	Authority	TKIAL	Authority	
I.1	New Airside Security Gate -1,2,3	2025, 2026, 2027	2025, 2026, 2027	2.13	1.50	0.63
I.2	Security equipment for Gates	2027	2027	1.52	1.52	-
I.3	Upgradation of Airside gates- Crash Gates, Morcha construction at gate 6,10,11	2027	2027	2.32	1.50	0.82
	Total			**5.97**	**4.52**	**1.45**

I.4 Airport Administration Building (Rs. 45.57 crores)

7.3.118 TKIAL has submitted a cost estimate of Rs. 45.57 crores (hard cost) for the construction of a new administrative building near Terminal-II. This proposal of TKIAL arises from the need for a larger facility, as the existing building, spanning 1,558 square meters, is insufficient to accommodate the anticipated workforce growth comprising both AAI and TKIAL staff, totaling 400 employees. TKIAL has submitted that, when considering the area per employee in the existing building (260-300 employees accommodated in 1,558 square meters), it becomes clear that the available space is insufficient for the proposed staffing levels and thus, the construction of a new administrative building is required to ensure a comfortable and efficient working environment for all employees.

7.3.119 During the Airport visit by its Independent Consultant, TKIAL informed that the current work force is housed in different buildings including temporary facilities such as containers. TKIAL has submitted that the need increases when there are Project employees of TKIAL/Project Management Consultants for supporting the Capital Expenditure plans.

7.3.120 TKIAL has provided the following basis for the cost estimation for the Administration Building:

Table 127: Cost estimate of Administration Building as submitted by TKIAL

(Rs. in crores)

Particulars	UOM	Rate (Rs.)	Quantity	Amount
New Structure	Sqm	79,700	5,600	44.63
Site Circulation	Sqm	4,700	1,993	0.94
Total				**45.57**

7.3.121 The Authority notes that TKIAL has not submitted any details for the site circulation cost. TKIAL has also considered a cost of 10% for working in operational areas. However, during the Airport visit, the Authority through its Independent Consultant noted that the new Administrative Building is not within the airside operational area. Therefore, the Authority proposes not to consider the additional 10% for working in operational areas.

7.3.122 Based on the above, the Authority proposes to consider the total cost of Rs. 40.42 crores towards the cost of Administration building.

I.5 Minor Works – Other Buildings (Rs. 18.40 crores)

7.3.123 TKIAL submitted an estimate cost of Rs. 18.40 crores spread over three FYs, i.e., FY 2022-23, FY2023-24, FY 2024-25 for Minor Works – Other Buildings.

7.3.124 The Authority notes that the above amount is for various miscellaneous works such as Construction of New Staff Canteen & Creche in Terminal T-II, Upgradation of T-I Existing Canteen, Kitchen, Kitchen equipment, Furniture, Construction of Storeroom for Techno commercial and E&M and other miscellaneous works.

7.3.125 The Authority, through its Independent Consultant, verified the details of all the items and notes that the works planned by TKIAL are necessary. Further the Authority notes that some of the proposed capex is still under the planning stage, hence, the Authority proposes to shift the capitalization of such assets to FY 2024-25. The Authority has reviewed the details of the cost estimates submitted and proposes to consider only those works for which detailed break-up is provided by TKIAL.

7.3.126 On review of the detailed breakup, the Authority notes that the cost of "Structural strengthening of ancillary buildings" as per BOQ was Rs. 2.67 crores as against Rs. 2.86 crores in the MYTP submission. The Authority also notes that as of December 2023, the work on this project is in process. Therefore, the Authority proposes to consider the cost as per BOQ, i.e. Rs. 2.67 crores, as an addition to RAB in FY 2024-25, i.e. third tariff year of the current control period.

7.3.127 On review of FARs shared on 10th January 2024, the Authority notes that Rs. 2.40 crores have been capitalized with respect to reinforcing / upgradation to the existing Admin Block and Rs. 0.15 crores have been capitalized for development of open drains in FY 2022-23. The Authority also observed that as per the project status shared by TKIAL, the project on development of open drains has been completed and the total cost incurred was Rs. 0.46 crores. The Authority, therefore, proposes to consider the following:

- For upgradation of the existing Admin Block, the actual cost incurred of Rs. 2.40 crores for FY 2022-23 and the remaining portion of the total project cost in FY 2023-24 and FY 2024-25.
- For the development of open drains, the actual cost incurred of Rs. 0.46 crores as the total project cost with Rs. 0.15 crores incurred in FY 2022-23 and the remaining portion of the total project cost in FY 2023-24.

7.3.128 The Authority notes that TKIAL has not furnished the detailed breakup of cost for replacement of 11 KV Old HT panels in CCR with associated works and therefore proposes to not consider the cost for same during the current control period.

7.3.129 The Authority also notes that as per the status of project as of December 2023, "Construction of New Staff Canteen & Creche in Terminal T-II, Upgradation of T-I Existing Canteen, Kitchen, Kitchen equipment and Furniture's at TRV(Kerala) International Airport Ltd, provision for car/scooter shed for staffs, Replacement of scooter shed & provision of compound wall with covered parking at fire station, and Provision of water less urinal sensors at admin blocks & other ancillary buildings." is under planning stage. Therefore, the Authority proposes to consider the capitalization of this project in FY 2024-25.

7.3.130 The Authority will review the actual costs incurred and the date of capitalization for this project at the time of true-up of Third Control Period subject to evaluation of efficiency of costs and reasonableness.

Table 128: Cost for Minor works – Other buildings proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalization		Base Cost as per		Variance
I.5	Sustaining / Minor Capex Works	TKIAL	Authority	TKIAL	Authority	
1	Upgradation of the existing Admin block/Offices & office development of Engineering, Finance and HR offices including furniture	2023, 2024, 2025	2023, 2024, 2025	4.95	4.95	-

Sl. No.	Project Detail	Year of capitalization		Base Cost as per		Variance
I.5	Sustaining / Minor Capex Works	TKIAL	Authority	TKIAL	Authority	
2	Construction of Storeroom for Techno commercial and E&M.	2024	2025	3.03	3.03	-
3	Provision for car/scooter shed for staffs (as per CA -Planned capex work)	2024	2025	1.10	1.10	-
4	Replacement of scooter shed & provision of compound wall with covered parking at fire station	2024	2025	0.77	0.77	-
5	Provision of water less urinal sensors at admin blocks and other ancillary buildings.	2024	2025	0.33	0.33	-
6	Replacement of 11KV Old HT panels in CCR with associated works	2024	2024	1.65	-	1.65
7	Structural strengthening of ancillary buildings	2024, 2027	2025, 2027	2.86	2.67	0.19
8	Development of open drains and area at new fire station including dismantling of old fire station and developing the pavement and other ancillary facilities after demolishing the old fire station	2023, 2024	2023, 2024	2.07	0.46	1.61
9	Providing and laying waterproofing on the terrace of old domestic terminal.	2023	2023	0.37	0.39	(0.03)
10	Construction of New Staff Canteen & Creche in Terminal T-II, Upgradation of T-I Existing Canteen, Kitchen, Kitchen equipment and Furniture's at TRV(Kerala) International Airport Ltd.	2023	2025	1.28	1.28	-
	Total			**18.40**	**14.97**	**3.42**

7.3.131 Based on the above, the total cost proposed to be considered by the Authority for Other Buildings is as below:

Table 129: Other Building cost proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalisation		Base Cost		Variance
		TKIAL	Authority	TKIAL	Authority	
I.1	New Airside Security Gate - 1,2,3	2025, 2026, 2027	2025, 2026, 2027	2.13	1.50	0.63
I.2	Security equipment for Gates	2027	2027	1.52	1.52	-
I.3	Upgradation of Airside gates-Crash Gates, Morcha construction at gate 6,10,11	2027	2027	2.32	1.50	0.82
I.4	Administrative Building	2026	2026	45.57	40.42	5.15
I.5	Minor Capex Projects (Table 128)	2023, 2024, 2025, 2027	2023, 2024, 2025, 2027	18.40	14.97	3.42
	Total			**69.93**	**59.91**	**10.02**

J. <u>IT (Rs. 58.05 crores)</u>

J1. IT – Strategic Projects (<u>Rs. 45.10 crores</u>)

7.3.132 The Authority notes that TKIAL has submitted IT – Strategic Projects of Rs. 45.10 crores which includes various IT initiatives as mentioned below:

- IT Network Segmentation (~ Rs. 14.33 crores)
- IOT-enabled PAX Count, Flow and Queue Monitoring (~ Rs. 7.64 crores)

- IOT-enabled Asset Tracking Project (~ Rs. 4.93 crores)
- Wi-Fi Network - Passenger (~ Rs. 4.2 crores)
- Traffic Management (~Rs. 0.8 crores)
- Vehicle Tracking and SLA Violation Reporting (~Rs. 0.8 crores)
- Landside Security Camera (CCTV) (~Rs. 0.56 crores)
- Wi-Fi Network - Indoor (~Rs. 0.39 crores)
- AI, IOT, R&D and other Strategic Initiatives (~Rs. 2 crores)

7.3.133 The Authority notes that IT - Strategic Projects are essential for modernizing the airport, improving operational efficiency, enhancing passenger experience and ensuring the airport's overall safety and security. The Authority notes that TKIAL has provided the nature of the projects included under IT-Strategic Projects except for "Traffic Management". The Authority also notes that the final cost for these projects will be firmed up once the orders of award are issued. The Authority proposes to consider 50% of the proposed capital expenditure after excluding the cost for "Traffic Management" as addition to RAB in the current control period and other costs upon incurrence which will be trued-up in the next control period.

7.3.134 Break-up of costs relating to IT - Strategic Projects submitted by TKIAL and the Authority's proposal for the same is given below:

Table 130: Cost proposed by the Authority for IT – Strategic Projects

(Rs. in crores)

Project	Nature of Projects	Amount
IT Network Segmentation	Undertaken to mitigate the effect of frequent outage on the IT system	14.33
IOT-enabled PAX Count, Flow and Queue Monitoring	Sensor based software for tracking passenger movement	7.64
IOT-enabled Asset Tracking Project	Tracking of movable assets like baggage trolley, wheelchair, etc. using GPS, barcode, etc.	4.93
Wi-Fi Network - Passenger	Passenger Internet Connectivity	4.20
Vehicle Tracking and SLA Violation Reporting	Monitoring of vehicle traffic at both departure and arrival	0.80
Landside Security Camera	CCTV system at CISF recommended locations	0.56
Wi-Fi Network - Indoor	Airport Staff Internet Connectivity	0.39
AI, IOT, R&D and other Strategic Initiatives	Budgeted for AI BOT and others	2.00
Total cost break-up submitted by TKIAL		**34.85**
Proposed by the Authority (50%)		**17.43**

7.3.135 The Authority also notes on examination of the FY 2022-23 FAR, that Rs. 7.60 crores have been capitalized in FY 2022-23. The Authority proposes to consider the same as addition to RAB for FY 2022-23 of the current control period.

J2. Minor IT Projects (Rs. 12.95 crores)

7.3.136 The Authority notes that TKIAL has, along with the IT strategic projects, submitted certain capex costs relating to BU Growth & Sustenance, Cyber, Integration etc. totaling to Rs. 12.95 crores to be incurred from FY 2022-23 to FY 2026-27.

7.3.137 The Authority notes that the proposed capex for the project "Upgradation of Network Adapter by replacement of Media converter with Industrial grade Managed Ethernet switch" BU Growth & Sustenance and "Automation of all forms at Apron and IT equipment upgradation in Apron Control" is under planning stage or the work is in progress and hence proposes to shift the capitalization to FY 2023-24.

7.3.138 The Authority also notes on examination of the FARs shared, that Rs. 0.88 crores, Rs. 0.93 crores and approximately Rs. 0.01 crores have been capitalized till 30th September 2023 for the projects Workstation with required accessories, Integration activities and Cyber security respectively. The Authority proposes to consider the same as addition to RAB for FY 2022-23 and FY 2023-24 as applicable and adjust correspondingly the capex proposed to be capitalized in the remaining years.

7.3.139 Based on the above analysis, the Authority proposes to consider the following cost for IT projects for the Third Control Period:

Table 131: Cost for IT project proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalization		Base Cost		Variance
		TKIAL	Authority	TKIAL	Authority	
J.1	**Strategic Projects**					
	Sub Total	2023,2024, 2025,2026, 2027	2023,2024, 2025,2026, 2027	**45.10**	**17.43**	**27.67**
J.2	**Sustaining / Minor Capex Works**					
a.	BU Growth & Sustenance	2023,2024, 2025,2026, 2027	2024,2025, 2026,2027	3.16	3.16	-
b.	Workstation with required accessories like LaserJet Printers, Scanners etc.	2024,2025, 2026,2027	2023,2024, 2025,2026, 2027	1.43	1.43	-
c.	Integration activities	2023,2024, 2025,2026, 2027	2023,2024, 2025,2026, 2027	3.18	3.18	-
d.	Automation of all forms at Apron and IT equipment upgradation in Apron Control	2023,2024, 2025,2026, 2027	2024,2025, 2026,2027	0.99	0.99	-
e.	Safety Occurrence Reporting Software	2024	2024	0.55	0.55	-
f.	Cyber Security related	2023,2024, 2025,2026, 2027	2023,2024, 2025,2026, 2027	2.15	2.15	-
g.	Upgradation of Network Adapter by replacement of Media converter with Industrial grade Managed Ethernet switch. The scope includes supplying all the necessary hardware including power supplies for each managed switch, disconnecting old media converters from the system & connecting new managed Ethernet switches in the system.	2023	2024	0.27	0.27	-
h.	Passive Components	2024,2025, 2026,2027	2024,2025, 2026,2027	1.22	1.22	-
	Sub Total			**12.95**	**12.95**	**-**
	Total			**58.05**	**30.38**	**27.67**

K. <u>Environment Related Projects (Rs. 24.15 crores)</u>

K.1 Airside Fuel/ EV Charging Station for Rs. 2.08 crores have been projected by TKIAL in FY 2024-25. (consisting of 30KW charging points 3 nos, 2 fuel dispensing units and associated facilities). The Authority notes that this is a green energy initiative at the airport and the estimated cost is found to be reasonable. Hence, the Authority proposes to consider this Capital Expenditure as an addition to RAB in FY 2024-25.

K.2 Airport Owned Electric Vehicles projected by TKIAL for Rs. 6.16 crores are proposed to be capitalized in FY 2024-25. The Authority notes that this is a green initiative from an environmental perspective and that the existing vehicles of TKIAL are old. Hence, TKIAL has planned for replacement of such old vehicles with electric vehicles. The Authority has reviewed the estimated cost submitted by TKIAL and notes that, order for 17 plus vehicles with an average price of Rs. 0.35 crores have been placed, of which 4 vehicles have already been procured. The Authority finds the estimated cost of TKIAL to be reasonable and accordingly proposes to consider this Capital expenditure.

The Authority also notes that as per FAR submitted the AO has capitalized Rs. 2.37 crores in FY 2022-23 based on actual cost incurred. The Authority proposes to consider the same as capital additions in FY 2022-23 in the current control period.

K.3 Other Environmental Related capital items – TKIAL has a projected cost of Rs. 8.50 crores for activities towards safety and environmental requirements such as STP, a waste disposal facility for aircraft toilets etc. The Authority notes that capital expenditure proposed by TKIAL is to support Carbon Neutrality and Net Zero Emissions initiatives, focusing on reducing emissions, developing green infrastructure, enhancing energy efficiency, and implementing resource conservation measures for improved airport operations. The Authority finds the estimated cost of TKIAL to be reasonable and hence proposes to consider the same as additions to RAB. However, the Authority notes that the proposed capex is still under planning/tendering stage, hence, the Authority proposes to shift the capitalization of "Conversion of Halogen type runway fittings with LED type fittings" to FY 2024-25 and "Energy Management system for monitoring Electricity Consumption including Digital energy meters" to FY 2023-24 and FY 2024-25. The Authority also notes that as per TKIAL's reply to query dated 10th January 2024, the work on "IoT based Water Management" has been completed in FY 2023-24 and the actual cost incurred was approximately Rs. 0.14 crores as against Rs. 0.17 crores submitted by TKIAL. Therefore, the Authority proposes to consider the capitalization in FY 2023-24 and the actual cost towards addition to RAB during the current control period for the project "IoT based Water Management".

K.4 DG Retro fitting projected by TKIAL for Rs. 3.08 crores – As per Kerala Pollution Control Board Order, all DGs of 500 KVA and above rating need to be retrofitted to reduce the release of greenhouse gases in the atmosphere. Accordingly, TKIAL has planned for retro fitting of 10 DG sets in a phased manner (8 DG sets from Cummins and 2 DG sets of Greaves). The Authority observes that this is a statutory requirement and is also a green energy initiative and thus proposes to consider the same as part of additions to RAB. However, the Authority notes that the proposed capex is still under tendering stage as per reply to query dated 10th January 2024, hence, proposes to shift the capitalization of the asset to FY 2023-24 to FY 2026-27 as against the capitalization from FY 2022-23 to FY 2025-26 submitted by TKIAL.

K.5 Triturator of Rs. 3.34 crores has been projected for capitalization by TKIAL in FY 2024-25. The Authority notes that Triturator is an automated and closed airliner waste disposal system, which drains the contents of the lavatory vehicles into the sewer system with minimal odor or risk of spills. Liquid waste from aircraft shall be treated at Triturator as a primary treatment and further will be pumped to STP for secondary treatment. The Authority proposes to consider the cost estimate submitted by TKIAL as part of additions to RAB in FY 2024-25.

K.6 & K.7 Solid Waste Management – Landside and T-II - TKIAL has claimed an amount of Rs. 0.99 crores towards Solid Waste Management facility. The Authority, after examining the project details, notes that it is a statutory requirement, however the Authority notes that the current status of the proposed capex is still under planning stage, and therefore proposes to consider capitalization of the same in FY 2023-24.

7.3.140 Based on the above analysis, the Authority proposes to consider the following cost towards Environmental related projects for the Third Control Period:

Table 132: Cost for Environmental related projects proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalization		Base Cost		Variance
		TKIAL	Authority	TKIAL	Authority	
K.1	Airside Fuel/ EV Charging Station (30KW charging points 3 nos; 2 fuel dispensing units and associated facilities)	2025	2025	2.08	2.08	-
K.2	Airport Owned Electric Vehicles Procurement	2023, 2024, 2025	2023, 2024, 2025	6.16	6.16	-
K.3	Other Environment Related					
a.	Conversion of Halogen type runway fittings with LED type fittings	2024	2025	5.50	5.50	-
b.	Continuous (real-time) Ambient air quality monitoring stations (CAAQM)	2026	2026	1.10	1.10	-
c.	Continuous (real-time) Noise monitoring stations (CNMS)	2026	2026	1.10	1.10	-
d.	Energy Management system for monitoring Electricity Consumption including Digital energy meters.	2023, 2024	2024, 2025	0.64	0.64	-
e.	IoT based Water Management	2023	2024	0.17	0.14	0.03
	Sub Total (K.3)			**8.50**	**8.48**	**0.03**
K.4	DG Retro fitting	2023, 2024, 2025, 2026	2024, 2025, 2026, 2027	3.08	3.08	-
K.5	Triturator	2025	2025	3.34	3.34	-
K.6	Solid Waste Management – Landside	2023	2024	0.44	0.44	-
K.7	Solid Waste Management Plant at T-II	2024	2024	0.55	0.55	-
	Total			**24.15**	**24.13**	**0.03**

L. <u>Sustaining / Minor Capex Works (Rs. 106.49 crores)</u>

L.1 Oil Water Separator (OWS) for Rs. 11.46 crores have been projected by TKIAL in FY 2024-25. In this regard, TKIAL has stated the following:

"Wastewater from aprons, hangars, cargo facilities, GA & GSE workshop, etc. contains floating oil along with suspended solids. These need to be separated from the water through screens, oil water separator, and Grit Chamber. After removal of floating oil and suspended solids, the wastewater is to be treated in STP…"

The Authority notes that this is an important activity for environment management at the airport. The Authority has analyzed the cost estimate submitted by TKIAL and observes that the cost proposed for the 3 units of Oil Water Separator by TKIAL is as per the PAR/DSR and market rates. The Authority notes that the rates for some of the line items were not in line with DSR 2021 and proposed to revise the same. The Authority also noted that TKIAL has considered 10% of the cost towards working in airside area. However, the Authority was of the view that the provision made by TKIAL was quite high and therefore proposes to reduce the same to 5% as detailed in para 7.3.39 on the BOQ items on which TKIAL has claimed 10% additional cost.

Based on the above revision the Authority proposes to consider a capital expenditure of Rs. 11.01 crores towards OWS as against the Rs. 11.46 crores projected by TKIAL. Further the Authority notes that as per the status of projects shared by TKIAL, the proposed capex is still under planning stage. Therefore, the Authority proposes to shift the capitalization to FY 2025-26.

L.2 Runway rubber removal machine (RRRM) has been projected by TKIAL for Rs. 6.82 crores in FY 2022-23. The Authority notes that the rubber removal activities are to be carried out by TKIAL at regular intervals to maintain the friction level as per the standard. Further, on examination of the cost breakup submitted by TKIAL and comparing the estimated costs of this asset with other similar airports, the Authority finds the same to be reasonable. Considering the operational requirements of the Airport, the Authority proposes to consider this as part of the additions to RAB in the current control period.

Further the Authority notes that though the Purchase Order has been issued for this proposed capex, the material is yet to be delivered. Hence, the Authority proposes to shift the capitalization to FY 2023-24.

L.3 Fire Fighting Equipment and facilities – TKIAL has projected a total of Rs. 42.71 crores as estimated capital cost under this head. This includes:

- Replacement of 3 Nos. ACFTs (Rs. 36 crores) – ACFTs need to be replaced in a phased manner due to ageing. TKIAL has submitted that the existing ACFTs were handed over from AAI and bought in 2009-10.
- Driving and Fire Fighting simulator – Rs. 4.20 crores
- Triage and rescue tools for ARFF – Rs. 2.50 crores
- Other miscellaneous items such as Video Recorder, Fire Fighter turnout fear locker, extendable hose, radiation detector etc.

The Authority notes that these items are required for ensuring safety and for emergency response. The Authority has reviewed the quotation for ACFTs and finds the estimate to be reasonable. However, the Authority proposes that these can be replaced in stages and hence proposes to consider the cost of 2 ACFTs, i.e. Rs. 24 crores in this control period, while the other one is suggested to be procured in the next control period.

The Authority also noted that the Driving and Fire Fighting simulator cost allowed for Hyderabad airport was only Rs. 4 crores and that the cost as per BOQ submitted by TKIAL for Triage and rescue tools for ARFF is only Rs. 2.14 crores. The Authority, therefore, proposes to consider Rs. 4 crores and Rs. 2.14 crores for Driving and Fire Fighting simulator, and Triage and rescue tools for ARFF respectively for the current control period.

Based on the above revision the Authority proposes to consider a capital expenditure of Rs. 30.14 crores towards Fire Fighting Equipment and facilities as against the Rs. 42.71 crores projected by TKIAL. Further the Authority notes that Rs. 0.44 crores have been capitalized in FY 2022-23 as per the FAR submitted by TKIAL. Hence, the Authority proposes to consider the same as actual capital addition for the year and shift the remaining portion of the initial capitalization from FY 2022-23 to FY 2023-24 and the capitalization in FY 2023-24 to FY 2024-25.

L.4 Trolleys – Rs. 7.67 crores have been projected under this head for capitalization by TKIAL during the Third Control Period. The Authority notes that TKIAL has approximately 1,700 trolleys. As per Schedule H parameters of Concession Agreement, 100% of trolley should be available to all passengers. Therefore, with approximately 3,160 nos. of peak hour passengers in FY 2023-24 (capacity of both the terminals combined) it is important to have required trolleys available at TRV.

Further, the Authority notes that TKIAL has submitted vide reply to queries dated 8th June 2023, that the rate per trolley is Rs. 33,000 and that 150 number of trolleys were proposed to be added in FY 2022-23 and 400 trolleys per year from the year thereafter. TKIAL has also considered an annual rate hike of 7 percent. The Authority also notes that, of the Rs. 0.65 crores planned for purchase in FY 2022-23, only Rs. 0.49 crores have been capitalized in FY 2022-23 as per FAR submitted by TKIAL. The Authority therefore proposes to consider the purchase of remaining trolleys in FY 2023-24. The Authority also proposes to consider a purchase of 800 trolleys in FY 2024-25 and 400 each in the remaining two tariff years of the current control period. The Authority proposes to consider an inflationary hike as per Table 153 on the per trolley rate as the rate escalation of 7% submitted by TKIAL appeared to be high.

Based on the above revision, the Authority proposes to consider a capital expenditure of Rs. 6.15 crores towards Trolley as against the Rs. 7.67 crores projected by TKIAL.

L.5 Other Works for Rs. 37.83 crores have been proposed by TKIAL across all the five tariff years. The Authority notes that the estimated cost under this subhead includes the works/equipment mainly towards ASFT, Ambulance, passenger processing system, facility for wildlife hazard management, installation of stop bar and runway guard lights etc. TKIAL has submitted that the requirements have been projected by TKIAL based on various guidelines issued on maintaining the safety and security aspects of the airport. The Authority notes that some of these projects relate to environmental compliance requirements at the airport. The Authority has reviewed the proposed costs and notes that these are reasonable. Hence, the Authority proposes to consider this cost as part of CAPEX.

TKIAL, vide reply to query dated 10th January 2024 has submitted the current status of the projects along with the FAR as on 31st March 2023 and 30th September 2023. On review of the same, the Authority notes the following:

a. Requirement of Furniture/ RO (Reverse Osmosis) plant / Labor Management system/GYM material for CISF - The Authority notes that as per the FAR submitted, Rs. 0.11 crores was capitalized in FY 2022-23. Therefore, the Authority proposes to consider the same and also to consider the capitalization of the remaining project cost as per TKIAL’s submission.

b. CISF QRT Vehicle – The Authority notes that this project has been completed at a total cost of Rs. 1.10 crores with Rs. 1.04 crores being incurred in FY 2022-23 and the remaining in FY 2023-24. The Authority proposes to consider the same as capital addition during the current control period against Rs. 1.43 crores of base cost claimed by TKIAL.

c. Supply and laying of 11KV HT feeder cables to various substations/Power houses – The Authority notes that this project has been completed at a total cost of Rs. 1.01 crores with Rs. 0.61 crores being incurred in FY 2022-23 and the remaining in FY 2023-24. The Authority proposes to consider the same as capital addition during the current control period as against Rs. 0.97 crores of base cost claimed by TKIAL.

d. Garden lighting and NITB terminal building south side neon strip lighting with Programmable DMX controller and Improvement to external garden lighting – The Authority notes that as per the FAR submitted, Rs. 0.92 crores was capitalized in FY 2022-23. Therefore, the Authority proposes to consider the same and to consider the capitalization of the remaining portion of the total project cost in FY 2023-24.

e. Others – The Authority notes that projects whose total base cost was Rs. 2.37 crores as per TKIAL, was completed at a cost of approximately Rs. 2.08 crores. The Authority proposes to consider this cost of Rs. 2.08 crores as capital addition during the current control period.

Further, the Authority notes that some of the assets which were supposed to be capitalized in FY 2022-23 were still either in the planning stage or a Purchase Order was issued but the material is yet to be received. The Authority therefore proposes to shift the capitalization of such assets by one year.

The details of the items proposed to be considered by the Authority and the revised year of capitalization is as shown in the table below:

Table 133: Details of Other Works proposed by the Authority

(Rs. in crores)

Sl. No	Project Detail	Year of capitalization		Base Cost as per		Variance
L.5	**Other Sustaining / Minor Capex Works**	**TKIAL**	**Authority**	**TKIAL**	**Authority**	
	ASFT (Airfield surface friction tester)	2023	2024	1.76	1.76	-
	View Cutter	2023	2024	1.10	1.10	-
	Grass cutting and collection machine – Trilo	2024	2024	1.21	1.21	-
	Purchase of Ambulance	2023, 2024, 2025, 2026	2024, 2025, 2026	2.93	2.93	-
	Passenger processing system	2023	2024	4.71	4.71	-
	Requirement of Furniture/ RO (Reverse Osmosis) plant / Labor Management system/GYM material for CISF	2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	1.64	1.64	-
	Flight Radar monitoring screen at AOCC	2023	2024	2.42	2.42	-
	Facility for Wildlife Hazard Management	2024, 2025, 2026, 2027	2024, 2025, 2026, 2027	1.78	1.78	-
	Replacing of Ground Light Facility (GLF)cables approximate 8000 meters	2024	2024	0.94	0.94	-
	SCADA system for CCR	2025	2025	1.32	1.32	-
	Installation of Stop bar and runway Guard lights at Thiruvananthapuram International Airport	2024	2024	2.20	2.20	-
	BA set inclusive of software for monitoring	2027	2027	0.55	0.55	-
	CTSR (Containerized Tubular Shooting Range)	2024	2024	1.54	1.54	-
	CISF QRT Vehicle	2023	2023, 2024	1.43	1.10	0.33
	Four-Wheeler Electric	2024, 2025	2024, 2025	0.85	0.85	-
	Tensas barriers/ Stanchions	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	1.01	1.01	-
	Supply and laying of 11kV HT feeder cables to various substations/Power houses	2023	2023, 2024	0.97	1.01	(0.04)
	Replacement of Old LT PCC panels in CCR and associated works	2024	2025	0.55	0.55	-

Sl. No	Project Detail	Year of capitalization		Base Cost as per		Variance
L.5	Other Sustaining / Minor Capex Works	TKIAL	Authority	TKIAL	Authority	
	Garden lighting and NITB terminal building south side neon strip lighting with Programmable DMX controller and Improvement to external garden lighting	2024	2023, 2024	1.08	1.08	-
	Procurement of 22 meters Boom lift and vehicle mounted hydraulic ladder for maintenance work	2024	2024	1.32	1.32	-
	Others	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	6.52	6.23	0.29
	Total			**37.83**	**37.25**	**0.58**

7.3.141 Based on the above analysis, the Authority proposes to consider the following cost for sustaining/minor capex for the Third Control Period:

Table 134: Cost for Sustaining/ Minor Works proposed by the Authority

(Rs. in crores)

Sl. No.	Project Detail	Year of capitalization		Base Cost as per		Variance
L	Sustaining / Minor Capex Works	TKIAL	Authority	TKIAL	Authority	
L.1	Oil Water Separators (OWS)	2025	2026	11.46	11.01	0.45
L.2	1 Runway Rubber Removal Machine	2023	2024	6.82	6.82	-
L.3	Fire Fighting Equipment and facilities	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	42.71	30.14	12.57
L.4	Trolleys	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	7.67	6.15	1.51
L.5	Other Works	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	37.83	37.25	0.58
	Total			**106.49**	**91.37**	**15.12**

Cost claimed towards technical services, PMC, Preliminaries and Pre-operatives, Contingencies, Statutory approvals, Labour cess, Site-preparation, Insurance etc.

7.3.142 The Authority observes that TKIAL has claimed Rs. 522.48 crores towards Technical Services, PMC, Preliminaries & Pre-operatives, Contingencies, Insurance, etc., for all the projects. The total amount of Rs. 522.48 crores work out to approximately 16% on the total estimated base cost-plus cost of indexation of all the Capex projects.

7.3.143 The Authority upon review of TKIAL's explanation and relevant documents notes the following:

i. In respect of Rs. 522.48 crores claimed by TKIAL towards PMC and other costs, the Authority notes that for other PPP airports such as HIAL, BIAL, DIAL etc. the above-mentioned costs had been considered in the past in the range of 8% - 11% of the project costs. The Authority is of the view that 16% claimed by the TKIAL is on a very high side, as compared to other PPP Airports and hence not justified. Also, the Authority notes that a significant portion of the cost being considered is for procuring equipment etc. on which there is no Project Management cost etc. required to be incurred. The Authority proposes to consider an overall estimate of 8% on the total capital expenditure which in turn, provides for a higher loading of these soft costs on the relevant projects. Accordingly, the Authority proposes to consider the aforementioned costs to the extent of 8% of the Capital Expenditure costs allowed by the Authority for the current Control Period. The Authority has thus derived the amount proposed to be allowed towards the aforementioned costs as Rs. 97.28 crores, as against Rs. 522.48 crores claimed by TKIAL.

ii. The Authority notes the following:

a. Many of the CAPEX allowed to the AO are bought out items, wherein orders are placed on Supply, installation, Testing & Commissioning (SITC) basis. Hence, soft costs such as Project Management Consultancy (PMC), Design etc. need not be incurred on such items.

b. The new Capital Expenditure allowed to AO includes works on air side. On air side works such as Apron, Taxiway, Runway overlay, Fuel Farm etc., PMC charges are normally in the range of 1% to 3% maximum.

c. Soft cost claimed by the AO includes contingencies also, which do not come as a separate line item while capitalizing the assets and is not to be claimed without any contingent activity.

Hence taking an overall view, soft cost @ 8% of total capital expenditure is reasonable and justified.

Further, the Authority clarifies that the soft cost @ 8% allowed on Aero CAPEX is in addition to the cost of Independent Engineer (whose roles and responsibilities have been defined in Clause 24.1. and 24.2 Schedule L of the Concession Agreement) which has been considered while determining ARR of TKIAL for the Third Control Period.

iii. The decrease in costs is mainly on account of applying 8% on the ‘allowable’ Capital Expenditure as against 16% claimed by AO and the reduction in Capital Expenditure considered by the Authority due to shifting/ disallowance of some projects such as Construction of new Domestic terminal -1, GA Terminal, Construction of Code C Taxiway for GA Apron, Fuel hydrant line, Airport Boundary Wall, etc., as well as rationalization of certain others during the Third Control Period such as Expansion of Terminal-II apron, New Airside Security Gate, International Cargo Centre (ICC), Fuel storage farm, Development of RESA for RWY 32, Fire Fighting Equipment and facilities, etc.

7.3.144 The Authority proposes to reduce (adjust) 1% of the uncapitalized project cost from the ARR / target revenue as re-adjustment in case any particular capital project is not completed/ capitalized as per the approved capitalization schedule. It is further proposed that if the delay in completion of the project is beyond the timeline given in the capitalization schedule, due to any reason beyond the control of the TKIAL or its contracting agency and is properly justified, the same would be considered by the Authority while truing up the actual cost at the time of determination of tariff for the next Control Period. The re-adjustment in the ARR/ Target Revenue is to protect the interest of the stakeholders who are paying for services provided by the AO and is also encouragement for the AO to commission/ capitalize the proposed assets as per the approved CAPEX plan/ schedule.

Indexation

7.3.145 The Authority notes that TKIAL has submitted the year-wise expenditure on the different projects proposed by considering FY 2023 as the base year. Based on the year-wise cashflow, TKIAL had adjusted the expenditure to account for inflation in the future years. TKIAL had considered inflation at 5% and had computed indexation cost as Rs. 351.97 crores.

7.3.146 The Authority proposes to revise the indexation cost based on the rate of inflation proposed by it for the projects allowed for the Third Control Period (refer Table 153). Based on the above revision, and changes to the commencement/ completion year of the projects, the Authority has arrived at an Indexation cost of Rs. 62.02 crores as against Rs. 351.97 crores claimed by TKIAL.

Financing allowance / IDC

7.3.147 TKIAL has claimed Financing Allowance/IDC of Rs. 340.34 crores for the CAPEX projects which had been calculated on the average Capital Work in Progress (CWIP) of the entire project funds (funded out of debt and equity), at the rate of 12% (which is cost of debt).

The Authority has examined AO's claim as well as the justification provided for the same in detail and has summarized its view as shown below:

- The Authority considers that providing return on capital expenditure from the very beginning of construction will significantly lower the risks for an airport operator and may require revisiting the return on equity allowed to airport operators, as the investment in the asset class will then be equated to risk free rate of return.
- Further, provision of Financing Allowance will disincentivize TKIAL from ensuring timely completion of projects and delivery of services to the users. Therefore, the Authority is of the view that a return should be provided only when the assets are made available to the airport users except in the case of certain costs like IDC that will have to be incurred if debt is used for funding projects.
- Furthermore, the future returns from the project should generate adequate returns to cover the cost of equity during the construction stage. The AO is adequately compensated for the risks associated with the equity investments in a construction project once the project is capitalized by means of a reasonable cost of equity.
- Developments at greenfield airports inherently take longer durations to commission and operationalize. Therefore, the Airport Operator would have to wait for a considerable duration before getting returns on large capital projects. Keeping this in view, the Authority had earlier provisioned a financing allowance in the initial stages to such airports. It may be further noted that the Authority has never provided financing allowance in the case of brownfield airports in any of its Tariff Orders. Further, financing allowance for greenfield airports of BIAL, HIAL, CIAL etc. was allowed only for the initial stages of their development, after which IDC was permitted only on the debt portion of the proposed capital expenditure.
- It is pertinent to note that in case of a greenfield airport, investment in regulatory blocks by the Airport Operator would not make the airport facilities available to the passengers. Brownfield and Greenfield airports cannot be equated on this issue. In greenfield airports, the tariff is not applicable, and no revenue is available to the airport operator till the aeronautical services have been created and put to use. However, in the case of brownfield airports, where the AO brings in additional investments, the airport facilities are mobilized and enabled to other functional parts of the airport, which remains functional, and the AO is able to collect charges from the users. In the case of TKIAL, the Airport ought to be considered as a

brownfield airport, which in the opinion of the Authority would not be eligible for an allowance on the equity portion of newly funded capital projects.

- Financing Allowance is a notional allowance and different from interest during construction. Therefore, the provision of Financing Allowance on the entire capital work in progress would lead to a difference between the projected capitalization and actual cost incurred, especially when TKIAL funds the projects through a mix of equity and debt. Further, the Authority opines that only IDC should be provided on the debt borrowings availed for the execution of a project.
- AERA Guidelines, 2011 does not specifically state that Financing Allowance is to be provided on the equity portion of the capital expenditure. The proviso to Section 13 (1) (a) states that "*different tariff structures may be determined for different airports having regard to all or any of the above considerations specified at sub-clauses (i) to (vii) of Section 13 (1) (a)*".
- In respect of IDC, the Authority is inclined to allow the same and accordingly, the Authority has considered IDC to be provided on the debt portion of the value of average CWIP derived on the basis of revised Capitalization Schedule proposed by the Authority. Further, the Authority proposes to consider the notional gearing ratio (debt-equity ratio of 48:52) followed for other PPP airports and cost of debt @ 9% (refer Table 148 of Chapter 8) for the Third Control Period for calculating the value of IDC. Based on the same, the Authority has derived an amount of Rs. 36.01 crores and proposes to allow the same as against Rs. 340.34 crores (as Financing Allowance and IDC) claimed by the TKIAL for the Third Control Period.

7.3.148 The Authority notes that TKIAL has not paid any GST amount (on the value of RAB and CWIP invoices) to AAI. Further, in future, if AAI is required to bear the GST, then based on the indemnity bond provided by the AO, the same will be recovered by AAI from the TKIAL. As the GST amount has not been paid by the TKIAL, the Authority has not considered the same for determining RAB for the Third Control Period. However, the Authority will consider the statutory payments relating to GST amount on RAB and CWIP invoices, on actual incurrence basis, at the time of true up of the Third Control Period, while determining tariff of the next Control Period.

7.3.149 In respect of stamp duty and registration charges on the CA, the Authority notes that as per the terms of the CA, the TKIAL is required to pay the applicable duty and charges and has applied to the State Authority for assessment of the stamp duty amount. However, the Authority notes that TKIAL has not paid the amount, as the assessment order has not been received from the State Authority. Hence, the Authority has not considered the same as part of RAB for the Third Control Period. However, the Authority will consider the stamp duty and registration charges on the CA, if required so, on actual incurrence basis, at the time of true up of the Third Control Period, while determining tariff of the next Control Period.

7.3.150 The Authority notes that the TKIAL would be eligible to claim GST Input Tax Credits on procurement of certain movable property. The Authority expects that the TKIAL would properly account for such credits in its submissions in accordance with Chapter V of The Central Goods and Services Tax Act, 2017 at the time of true up of the RAB for the Third Control Period. The Authority may examine the accounting of input tax credits and make necessary adjustments in this regard at the time of determination of tariffs for the Fourth Control Period.

7.3.151 Based on the analysis detailed above, the Authority proposes the Total Capital Expenditure for the Third Control Period as per the table below:

Table 135: Capital Expenditure proposed by the Authority for the Third Control Period

(Rs. in crores)

Ref. No.	Project Detail	Base Cost*	FY of capitalization
A	**Terminal Building**		
A.1	Upgradation of Existing Terminal Building (T-I)	18.70	2025
A.2	Construction of New Domestic Terminal (T-I)	-	-
A.3	Upgradation & Expansion of Terminal Building (T-II)	553.75	2026
	Sub-Total (A)	**572.45**	
B	**Runway, Taxiway and Apron**		
B.1	Airside/Landside Drain Network (3.5m W x 2 m D)	113.43	2027
B.2	Development of RESA for RWY 32	0.50	2025
B.3	Grading of runway, taxiway strips and other critical areas in operational area.	9.76	2024
B.4	GSE Staging - (Rigid Pavement)	2.18	2025
B.5	Sustaining / Minor Capex Works	7.08	2023, 2024, 2025
B.6	Expansion of Terminal-II apron (Area includes HOS, Transition pavements, demolition & new pavements)	37.94	2025
	Sub-Total (B)	**170.87**	
C	**Runway Recarpeting**		
C.1	Runway and taxiway micro/ re surfacing and associated works	-	-
	Sub-Total (C)	**-**	
D	**GA Terminal Building, Apron & Taxiway**		
D.1	Construction of Code C Taxiway for GA Apron (Activity includes demolition items)	-	-
D.2	Construction of General Aviation (GA) Apron (Area includes HOS, Transition pavements, demolition & new pavements)	-	-
D.3	GA Terminal	-	-
	Sub-Total (D)	**-**	
E	**CNS/ATM**		
E.1	Airside Improvement Works	6.91	2024, 2025
E.2	ATC Tower and Technical Block	-	-
	Sub-Total (E)	**6.91**	
F	**Cargo Complex & Equipment**		
F.1	Interim ICC and DCC equipment	6.50	2023, 2025
F.2	International Cargo Centre (ICC)	53.70	2026
	Sub-Total (F)	**60.20**	
G	**Fuel Infrastructure & Hydrant System**		
G.1	IOCL & BPCL Asset procurement	9.51	2025
G.2	Dead stock of Product	5.00	2025
G.3	Equipment cost	14.50	2025
G.4	Fuel hydrant line	-	-
G.5	Fuel storage farm	132.43	2026
	Sub-Total (G)	**161.44**	
H	**Boundary Wall**		
H.1	Airport Boundary Wall	-	-
H.2	New Airside Perimeter after shifting boundary	-	-
H.3	Perimeter Intrusion Detection System (PIDS)	-	-
	Sub-Total (H)	**-**	
I	**Other Buildings**		

Ref. No.	Project Detail	Base Cost*	FY of capitalization
I.1	New Airside Security Gate -1,2,3	1.50	2025, 2026, 2027
I.2	Security equipment for Gates	1.52	2027
I.3	Upgradation of Airside gates- Crash Gates, Morcha construction at gate 6, 10, 11	1.50	2027
I.4	Airport Administration Building	40.42	2026
I.5	Sustaining / Minor Capex Works	14.97	2023, 2024, 2025, 2027
	Sub-Total (J)	**59.91**	
J	**IT**		
J.1	Strategic Projects	17.43	2023, 2024, 2025, 2026, 2027
J.2	Sustaining / Minor Capex Works	12.95	2023, 2024, 2025, 2026, 2027
	Sub-Total (I)	**30.38**	
K	**Environment Related Projects**		
K.1	Airside Fuel/ EV Charging Station (30KW charging points 3 nos; 2 fuel dispensing units and associated facilities)	2.08	2025
K.2	Airport Owned Electric Vehicles Procurement	6.16	2023, 2024, 2025
K.3	Other Environment Related	8.48	2024, 2025, 2026
K.4	DG Retro fitting	3.08	2024, 2025, 2026, 2027
K.5	Triturator	3.34	2025
K.6	Solid Waste Management - Landside	0.44	2024
K.7	Solid Waste Management Plant at T-II	0.55	2024
	Sub-Total (K)	**24.13**	
L	**Sustaining / Minor Capex Works**		
L.1	Oil Water Separators (OWS)	11.01	2026
L.2	1 Runway Rubber Removal Machine	6.82	2024
L.3	Fire Fighting Equipment and facilities	30.14	2023, 2024, 2025, 2026, 2027
L.4	Trolleys	6.15	2023, 2024, 2025, 2026, 2027
L.5	Other Works	37.25	2023, 2024, 2025, 2026, 2027
	Sub-Total (L)	**91.37**	
M	**Grand Total (Sum[A:L])**	**1,177.66**	
N	Add: Indexation (refer para 7.3.146)	62.02	
O	Add: Soft Cost (8%)	97.28	
P	Add: IDC (@9% [Cost of Debt])	36.01	
Q	**Capex Considered for RAB by the Authority (Sum[M:P])**	**1,372.97**	

7.3.152 In view of the above, the total capital expenditure submitted by TKIAL and proposed by the Authority for the Third Control Period is as given in table below:

Table 136: Capital Expenditure submitted by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Ref. No.	Project Detail	FY of capitalization		Base cost as per		Variance (A-B)	Remarks
		TKIAL	Authority	TKIAL (A)	Authority (B)		
A	**Terminal Building**						
A.1	Upgradation of Existing Terminal Building (T-I)	2024	2025	18.70	18.70	-	-
A.2	Construction of New Domestic Terminal (T-I)	2027	-	878.87	-	878.87	Estimated to be capitalised in the next control period as per the sequence of events evaluated (refer para 7.3.28)
A.3	Upgradation & Expansion of Terminal Building (T-II)	2025	2026	679.51	553.75	125.76	Inflation adjusted normative cost considered. Estimate of extra cost over approved rates for working in operational area reduced to 5% (refer para 7.3.39)
	Sub-Total (A)			**1,577.08**	**572.45**	**1,004.63**	
B	**Runway, Taxiway and Apron**						
B.1	Airside/Landside Drain Network (3.5m W x 2 m D)	2027	2027	116.97	113.43	3.55	Estimate of extra cost over approved rates for working in operational area reduced to 5%
B.2	Development of RESA for RWY 32	2025	2025	0.52	0.50	0.02	Estimate of extra cost over approved rates for working in operational area reduced to 5%
B.3	Grading of runway, taxiway strips and other critical areas in operational area.	2024	2024	16.50	9.76	6.74	Project completed. Based on actual cost incurred
B.4	GSE Staging - (Rigid Pavement)	2025	2025	2.31	2.18	0.13	Reduction in rate of certain items from Morth to CPWD DSR 2021. Estimate of extra cost over approved rates for working in operational area reduced to 5%
B.5	Sustaining / Minor Capex Works	2023, 2024	2023, 2024, 2025	7.36	7.08	0.28	Two of the Project were completed,

Ref. No.	Project Detail	FY of capitalization		Base cost as per		Variance (A-B)	Remarks
		TKIAL	Authority	TKIAL (A)	Authority (B)		
							and the actual cost is considered
B.6	Expansion of Terminal-II apron (Area includes HOS, Transition pavements, demolition & new pavements)	2024	2025	81.75	37.94	43.81	Inflation adjusted normative rate considered and 50% of the cost considered. Estimate of extra cost over approved rates for working in operational area reduced to 5% (refer para 7.3.65)
	Sub-Total (B)			**225.41**	**170.87**	**54.54**	
C	**Runway Recarpeting**						
C.1	Runway and taxiway micro/ re surfacing and associated works	2025	-	78.43	-	78.43	Considered as part of Operation & Maintenance Expenses (refer para 7.3.70)
	Sub-Total (C)			**78.43**	**-**	**78.43**	
D	**GA Terminal Building, Apron & Taxiway**						
D.1	Construction of Code C Taxiway for GA Apron (Activity includes demolition items)	2025	-	11.62	-	11.62	Not considered due to low frequency of GA aircraft movements (refer para 7.3.73)
D.2	Construction of General Aviation (GA) Apron (Area includes HOS, Transition pavements, demolition & new pavements)	2025	-	11.11	-	11.11	
D.3	GA Terminal	2025	-	7.63	-	7.63	
	Sub-Total (D)			**30.36**	**-**	**30.36**	
E	**CNS/ATM**						
E.1	Airside Improvement Works	2024, 2025	2024, 2025	6.94	6.91	0.03	SMR facility - Estimate of extra cost over approved rates for working in operational area reduced to 5%
E.2	ATC Tower and Technical Block	2026	-	283.49	-	283.49	Not considered currently. Will be considered on actual incurrence basis, subject to obtaining due approvals (refer para 7.3.81)
	Sub-Total (E)			**290.43**	**6.91**	**283.52**	

Ref. No.	Project Detail	FY of capitalization		Base cost as per		Variance (A-B)	Remarks
		TKIAL	Authority	TKIAL (A)	Authority (B)		
F	**Cargo Complex & Equipment**						
F.1	Interim ICC and DCC equipment	2023	2023, 2025	7.89	6.50	1.39	Project completed. Updated cost of Rs. 6.50 crores considered
F.2	International Cargo Centre (ICC)	2026	2026	73.19	53.70	19.48	Cost considered based on the rate approved for Lucknow Airport, i.e. Rs. 60,300 per sqm (refer para 7.3.91)
	Sub-Total (F)			**81.08**	**60.20**	**20.87**	
G	**Fuel Infrastructure & Hydrant System**						
G.1	IOCL & BPCL Asset procurement	2024	2025	10.00	9.51	0.49	Based on the average per KL rate for Ahmedabad and Lucknow Airport
G.2	Dead stock of Product	2024	2025	5.00	5.00	-	-
G.3	Equipment cost	2024	2025	14.50	14.50	-	-
G.4	Fuel hydrant line	2026	-	167.57	-	167.57	Due to low volume of flights, proposed to not be considered in the current control period (refer para 7.3.99)
G.5	Fuel storage farm	2026	2026	138.55	132.43	6.12	Estimate of extra cost over approved rates for working in operational area reduced to 5%
	Sub-Total (G)			**335.62**	**161.44**	**174.18**	
H	**Boundary Wall**						
H.1	Airport Boundary Wall	2027	-	4.52	-	4.52	Not considered in the current control period due to unavailability of land
H.2	New Airside Perimeter after shifting boundary	2025	-	6.05	-	6.05	Not considered in the current control period due to unavailability of land
H.3	Perimeter Intrusion Detection System (PIDS)	2027	-	25.92	-	25.92	Not considered in the current control period, as it is dependent on completion of the construction of the airport boundary

Ref. No.	Project Detail	FY of capitalization		Base cost as per		Variance (A-B)	Remarks
		TKIAL	Authority	TKIAL (A)	Authority (B)		
							wall (refer para 7.3.113)
	Sub-Total (H)			**36.49**	**-**	**36.49**	
I	**Other Buildings**						
I.1	New Airside Security Gate -1,2,3	2025, 2026, 2027	2025, 2026, 2027	2.13	1.50	0.63	Rate per gate revised to Rs. 0.50 crores
I.2	Security equipment for Gates	2027	2027	1.52	1.52	-	-
I.3	Upgradation of Airside gates- Crash Gates, Morcha construction at gate 6, 10, 11	2027	2027	2.32	1.50	0.82	Rate per gate revised to Rs. 0.50 crores
I.4	Airport Administration Building	2026	2026	45.57	40.42	5.15	As it is not within the airside operation area, extra cost for working in operational area is not considered
I.5	Sustaining / Minor Capex Works	2023, 2024, 2025, 2027	2023, 2024, 2025, 2027	18.40	14.97	3.42	Certain costs disallowance due to non- availability of detailed breakup In one case, reduced cost as per breakup provided has been considered. Two of the projects were completed; therefore, actual cost considered.
	Sub-Total (J)			**69.93**	**59.91**	**10.02**	
J	**IT**						
J.1	Strategic Projects	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	45.10	17.43	27.67	50% of the total cost of projects for which the details were provided considered (refer para 7.3.133)
J.2	Sustaining / Minor Capex Works	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	12.95	12.95	-	-
	Sub-Total (I)			**58.05**	**30.38**	**27.67**	
K	**Environment Related Projects**						
K.1	Airside Fuel/ EV Charging Station (30KW charging points 3 nos; 2 fuel	2025	2025	2.08	2.08	-	-

Ref. No.	Project Detail	FY of capitalization		Base cost as per		Variance (A-B)	Remarks
		TKIAL	Authority	TKIAL (A)	Authority (B)		
	dispensing units and associated facilities)						
K.2	Airport Owned Electric Vehicles Procurement	2023, 2024, 2025	2023, 2024, 2025	6.16	6.16	-	-
K.3	Other Environment Related	2023, 2024, 2026	2024, 2025, 2026	8.50	8.48	0.03	IoT based water management has been completed. Hence actual cost considered
K.4	DG Retro fitting	2023, 2024, 2025, 2026	2024, 2025, 2026, 2027	3.08	3.08	-	-
K.5	Triturator	2025	2025	3.34	3.34	-	-
K.6	Solid Waste Management - Landside	2023	2024	0.44	0.44	-	-
K.7	Solid Waste Management Plant at T-II	2024	2024	0.55	0.55	-	-
	Sub-Total (K)			**24.15**	**24.13**	**0.03**	
L	**Sustaining / Minor Capex Works**						
L.1	Oil Water Separators (OWS)	2025	2026	11.46	11.01	0.45	Estimate of extra cost over approved rates for working in operational area reduced to 5%
L.2	1 Runway Rubber Removal Machine	2023	2024	6.82	6.82	-	-
L.3	Fire Fighting Equipment and facilities	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	42.71	30.14	12.57	One ACFT proposed to be procured in the next control period. Cost for driving and firefighting simulator considered as allowed in Hyderabad airport. Triage and rescue tools cost considered as per BOQ submitted.
L.4	Trolleys	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	7.67	6.15	1.51	Change in annual rate hike from 7% to that as per inflationary growth proposed by Authority

Ref. No.	Project Detail	FY of capitalization		Base cost as per		Variance (A-B)	Remarks
		TKIAL	Authority	TKIAL (A)	Authority (B)		
							Revision in the year of procurement of trolley.
L.5	Other Works	2023, 2024, 2025, 2026, 2027	2023, 2024, 2025, 2026, 2027	37.83	37.25	0.58	Some of the projects have been completed hence actual cost considered
	Sub-Total (L)			**106.49**	**91.37**	**15.12**	
M	**Grand Total (Sum[A:L])**			**2,913.53**	**1,177.66**	**1,735.87**	
N	**Add:** Indexation (refer para 7.3.146)			351.97	62.02	289.95	
O	**Add:** Soft Cost (8%)			522.48	97.28	425.21	
P	**Add:** IDC (@9% [Cost of Debt])			340.34	36.01	304.32	
Q	**Less:** Runway Recarpeting Considered as Opex			101.80	**-**	101.80	
R	**Capex Considered for RAB by the Authority (Sum[M:P] – Q)**			**4026.52**	**1,372.97**	**2,653.54**	

7.3.153 The asset category wise Capital Expenditure proposed by the Authority for the Third Control Period is as per the table below:

Table 137: Asset category-wise total Capital Expenditure proposed by the Authority for Third Control Period

(Rs. in crores)

Particulars	FY23	FY24	FY25	FY26	FY27	Total
Terminal Building	9.35	2.47	21.12	635.84	-	**668.78**
Runway, Taxiway and Apron	1.19	11.59	50.96	-	139.81	**203.54**
Boundary Wall	-	-	-	-	-	**-**
IT equipment	9.32	10.56	5.22	4.18	4.62	**33.89**
Security equipment	-	2.96	0.27	-	-	**3.23**
Plant and Machinery	3.33	29.80	38.88	26.53	2.48	**101.02**
Other Buildings	3.08	2.01	20.74	48.84	5.73	**80.40**
Furniture & fixtures	0.60	0.79	3.45	2.11	2.05	**9.00**
Vehicles	3.42	5.32	3.34	0.94	0.27	**13.29**
Total Airport (A)	**30.28**	**65.48**	**143.97**	**718.45**	**154.96**	**1,113.14**
Cargo Complex (B)	-	-	-	62.62	-	**62.62**
Cargo Equipment (C)	3.47	-	3.03	-	-	**6.50**
Fuel Infrastructure & Hydrant System (D)	-	-	33.05	157.66	-	**190.71**
Grand Total (A + B + C + D)	**33.75**	**65.48**	**180.05**	**938.73**	**154.96**	**1,372.97**

7.3.154 The Authority proposes to consider the capitalization of expenditure by TKIAL for the Third Control Period as Rs. 1,372.97 crores.

7.3.155 The Authority, based on its examination of the MYTP and review of the supporting documents relating to Capital Expenditure submitted by the TKIAL from time to time, has rationalized the Capital Expenditure as detailed above. In this regard, the Authority expects quality input from all the Stakeholders on the proposals regarding CAPEX laid down in this Consultation Paper.

7.4 Asset Allocation of CAPEX for the Third Control Period

TKIAL's Submission

7.4.1 In its MYTP submission, TKIAL has not considered any specific allocation ratio for the assets proposed for the Third Control Period. TKIAL has treated all assets as fully aeronautical in its submissions as can be seen from the table below.

Table 138: Aeronautical Capital additions submitted by TKIAL for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Terminal Building	0.23	23.26	940.01	-	1,347.09	**2,310.60**
Runway, Taxiway and Apron	3.57	128.14	33.98	-	174.24	**339.92**
Boundary wall	-	-	7.99	-	45.32	**53.31**
IT equipment	3.93	47.82	6.25	6.83	7.65	**72.48**
Security equipment	1.38	2.17	-	-	-	**3.55**
Plant and Machinery	25.60	40.46	40.92	20.03	2.75	**129.76**
Other Buildings	6.45	21.76	4.52	460.35	8.47	**501.54**
Furniture & fixtures	0.72	2.80	2.51	3.00	3.17	**12.20**
Vehicles	6.51	4.37	2.90	1.09	0.31	**15.17**
Total Airport (A)	**48.38**	**270.79**	**1,039.08**	**491.29**	**1,589.00**	**3,438.54**
Cargo Complex (B)	-	-	-	100.90	-	**100.90**
Cargo Equipment (C)	9.44	-	-	-	-	**9.44**
Fuel Infrastructure & Hydrant System (D)	-	37.25	-	440.39	-	**477.65**
Grand Total (A + B + C + D)	**57.82**	**308.05**	**1,039.08**	**1,032.58**	**1,589.00**	**4,026.52**

Authority's examination of allocation of asset between aeronautical and non-aeronautical

The Authority's examination of allocation of assets between aeronautical and non-aeronautical is as follows:

7.4.2 The Authority notes that TKIAL has classified all the assets as aeronautical. The Authority examined each project individually and classified them as aeronautical, non- aeronautical and common. The Authority has conducted an independent study on the allocation of assets for the period from FY 2016-17 till FY 2021-22 and has used the outcome of the study for RAB allocation of Third Control Period.

Allocation Ratios

Terminal Building Ratio

7.4.3 It was observed that TKIAL has classified the entire area of the terminal building as aeronautical. Upon enquiry, TKIAL stated that this was done in accordance with the AERA Act.

7.4.4 The Terminal Building Area is planned in an airport considering the facilities to be provided for Aeronautical activities and provision of space for certain Non-Aeronautical activities such as Food & Beverage, Duty Free etc. Also, in the case of PPP airports, the focus on Non-Aeronautical activities is expected to be more as these would generate revenues and a part of the same would also cross subsidize the Aeronautical charges. The Authority also noted that in other PPP airports such as DIAL, MIAL, BIAL etc. the area allocated for Non-Aeronautical activities are over 10%. Similarly in AAI operated airports like Chennai, Kolkata and Patna, the Terminal Building Ratio is considered as 90%:10%. IMG norms inter alia provides for non-aeronautical area to be between 8% and 12%, with the range being higher for larger airports. Considering the above, the Authority proposes to consider the ratio of 90:10 towards Aeronautical and Non-Aeronautical in line with its decision in Order No. 03 /2017-18 dated 2nd June 2017 for TKIAL for the Third Control Period, Study on Allocation of Assets, IMG norms and as approved for other similar Airports.

Employee Head Count Ratio

7.4.5 The Authority proposes to allocate assets related to employees by using the Employee Head Count ratio, i.e. 97.49%. The ratio has been analysed and explained in detail in Table 166 of Chapter 10 – Operation and Maintenance Expenses.

7.4.6 Considering the above ratios and principles for classification of assets as explained in the Study on Asset Allocation, the aeronautical capital expenditure proposed by the Authority for the Third Control Period is given in the table below:

Table 139: Aeronautical capital expenditure proposed by the Authority for Third Control Period

(Rs. in crores)

Sl. No.	Project Detail	Total Cost	Aero %	Aero Capitalisation					
				FY 23	FY 24	FY 25	FY 26	FY 27	Total
A	**Terminal Building**								
A.1	Upgradation of Existing Terminal Building (T-I)	21.12	90.00%	-	-	19.01	-	-	**19.01**
A.2	Construction of New Domestic Terminal (T-I)	-	-	-	-	-	-	-	**-**
A.3	Upgradation & Expansion of Terminal Building (T-II)	647.44	90.00%	8.29	2.15	-	572.26	-	**582.70**
	Sub-Total (A)	**668.56**		**8.29**	**2.15**	**19.01**	**572.26**	**-**	**601.71**
B	**Runway, Taxiway and Apron**								
B.1	Airside/Landside Drain Network (3.5m W x 2 m D)	139.81	100.00%	-	-	-	-	139.81	**139.81**
B.2	Development of RESA for RWY 32	0.54	100.00%	-	-	0.54	-	-	**0.54**
B.3	Grading of runway, taxiway strips and other critical areas in operational area.	9.92	100.00%	-	9.92	-	-	-	**9.92**
B.4	GSE Staging - (Rigid Pavement)	2.48	100.00%	-	-	2.48	-	-	**2.48**
B.5	Sustaining / Minor Capex Works	7.68	100.00%	1.19	1.67	4.82	-	-	**7.68**
B.6	Expansion of Terminal 2 apron (Area includes HOS, Transition pavements, demolition & new pavements)	43.11	100.00%	-	-	43.11	-	-	**43.11**
	Sub-Total (B)	**203.54**		**1.19**	**11.59**	**50.96**	**-**	**139.81**	**203.54**

Sl. No.	Project Detail	Total Cost	Aero %	Aero Capitalisation					
				FY 23	FY 24	FY 25	FY 26	FY 27	Total
C	**Runway Recarpeting**								
C.1	Runway and taxiway micro/ re surfacing and associated works	-	-	-	-	-	-	-	**-**
	Sub-Total (C)	-	-	-	-	-	-	-	**-**
D	**GA Terminal Building, Apron & Taxiway**								
D.1	Construction of Code C Taxiway for GA Apron	-	-	-	-	-	-	-	**-**
D.2	Construction of General Aviation (GA) Apron	-	-	-	-	-	-	-	**-**
D.3	GA Terminal	-	-	-	-	-	-	-	**-**
	Sub-Total (D)	**-**		**-**	**-**	**-**	**-**	**-**	**-**
E	**CNS/ATM**								
E.1	Airside Improvement Works	7.85	100.00%	-	0.22	7.63	-	-	**7.85**
E.2	ATC Tower and Technical Block	-	-	-	-	-	-	-	**-**
	Sub-Total (E)	**7.85**		**-**	**0.22**	**7.63**	**-**	**-**	**7.85**
F	**Cargo Complex & Equipment**								
F.1	Interim ICC and DCC equipment	6.50	100.00%	3.47	-	3.03	-	-	**6.50**
F.2	International Cargo Centre (ICC)	62.62	100.00%	-	-	-	62.62	-	**62.62**
	Sub-Total (F)	**69.12**		**3.47**	**-**	**3.03**	**62.62**	**-**	**69.12**
G	**Fuel Infrastructure & Hydrant System**								
G.1	IOCL & BPCL Asset procurement	10.75	100.00%	-	-	10.75	-	-	**10.75**
G.2	Dead stock of Product	5.65	100.00%	-	-	5.65	-	-	**5.65**
G.3	Equipment cost	16.66	100.00%	-	-	16.66	-	-	**16.66**
G.4	Fuel hydrant line	-	-	-	-	-	-	-	**-**
G.5	Fuel storage farm	157.66	100.00%	-	-	-	157.66	-	**157.66**
	Sub-Total (G)	**190.71**		**-**	**-**	**33.05**	**157.66**	**-**	**190.71**
H	**Boundary Wall**								
H.1	Airport Boundary Wall	-	-	-	-	-	-	-	**-**
H.2	New Airside Perimeter after shifting boundary	-	-	-	-	-	-	-	**-**
H.3	Perimeter Intrusion Detection System (PIDS)	-	-	-	-	-	-	-	**-**
	Sub-Total (H)	**-**		**-**	**-**	**-**	**-**	**-**	**-**
I	**Other Buildings**								
I.1	New Airside Security Gate -1,2,3	1.76	100.00%	-	-	0.57	0.57	0.62	**1.76**

Sl. No.	Project Detail	Total Cost	Aero %	Aero Capitalisation					
				FY 23	FY 24	FY 25	FY 26	FY 27	Total
I.2	Security equipment for Gates	1.87	100.00%	-	-	-	-	1.87	**1.87**
I.3	Upgradation of Airside gates- Crash Gates, Morcha construction at gate 6,10,11	1.84	100.00%	-	-	-	-	1.84	**1.84**
I.4	Airport Administration Building	48.02	-	-	-	-	48.02	-	**48.02**
I.5	Sustaining / Minor Capex Works	16.69	94.60%*	2.84	0.31	11.62	-	1.01	**15.79**
	Sub-Total (I)	**70.18**		**2.84**	**0.31**	**12.19**	**48.59**	**5.34**	**69.28**
J	**IT**								
J.1	Strategic Projects	19.12	90.00%	6.84	7.36	0.90	1.00	1.11	**17.21**
J.2	Sustaining / Minor Capex Works	14.77	90.00%	1.54	2.14	3.80	2.76	3.05	**13.29**
	Sub-Total (J)	**33.89**		**8.39**	**9.50**	**4.69**	**3.76**	**4.16**	**30.50**
K	**Environment Related**								
K.1	Airside Fuel/ EV Charging Station (30KW charging points 3 nos; 2 fuel dispensing units and associated facilities)	2.36	100.00%	-	-	2.36	-	-	**2.36**
K.2	Airport Owned Electric Vehicles Procurement	6.71	90.62%*	2.14	2.83	1.11	-	-	**6.08**
K.3	Other Environment Related	9.59	99.27%*	-	0.55	6.41	2.57	-	**9.52**
K.4	DG Retro fitting	3.50	90.00%	-	0.86	0.89	0.92	0.48	**3.15**
K.5	Triturator	3.83	100.00%	-	-	3.83	-	-	**3.83**
K.6	Solid Waste Management - Landside	0.48	100.00%	-	0.48	-	-	-	**0.48**
K.7	Solid Waste Management Plant at T2	0.60	100.00%	-	0.60	-	-	-	**0.60**
	Sub-Total (K)	**27.07**		**2.14**	**5.31**	**14.61**	**3.49**	**0.48**	**26.02**
L	**Sustaining / Minor Capex Works**								
L.1	Oil Water Separators (OWS)	12.75	100.00%	-	-	-	12.75	-	**12.75**
L.2	1 Runway Rubber Removal Machine	7.39	100.00%	-	7.39	-	-	-	**7.39**
L.3	Fire Fighting Equipment and facilities	34.27	100.00%	0.44	0.94	22.05	9.88	0.96	**34.27**
L.4	Trolleys	7.08	100.00%	0.49	0.08	3.16	1.64	1.70	**7.08**

Sl. No.	Project Detail	Total Cost	Aero %	Aero Capitalisation					
				FY 23	FY 24	FY 25	FY 26	FY 27	Total
L.5	Other Sustaining / Minor Capex Works	40.56	98.82%*	4.10	26.06	6.07	1.98	1.88	**40.08**
	Sub-Total (L)	**102.04**		**5.03**	**34.46**	**31.28**	**26.24**	**4.54**	**101.57**
M	**Grand Total**	**1,372.97**		**31.35**	**63.54**	**176.46**	**874.62**	**154.33**	**1,300.30**

**These projects contain multiple assets which have been allocated based on the ratios defined in the above paragraphs. The Aero % shown is the average aeronautical percentage of all the assets in the respective projects.*

7.4.7 To summarize, based on the above detailed discussions, the Authority proposes to consider aeronautical capital expenditure of Rs. 1,300.30 crores as addition to the RAB for the current control period as against Rs. 4,026.52 crores submitted as aeronautical addition to RAB by TKIAL. The difference in the two amounts is mainly due to the following changes, adjustments, revisions and rationalization carried out by the Authority:

A. Disallowance / Deferring of projects incl. projects allowed on incurrence basis – impact of Rs. 1,476.86 crores
B. Allowance of only partial amount of the Base Cost – impact of Rs. 259.01 crores
C. Indexation as a result of change in inflation – impact of Rs. 289.95 crores
D. Soft Cost – impact of Rs. 425.21 crores
E. IDC/Disallowance of Financing Allowance – impact of Rs. 304.32 crores
F. Allocation Ratio – impact of Rs. 72.67 crores
G. Consider runway recarpeting expenses under Operation and Maintenance expenses – impact of Rs 101.80 crores

7.4.8 Based on the above resultant revision to capital additions, the Authority proposes the following Aeronautical Gross Block for TKIAL for the Third Control Period.

Table 140: Gross Block Proposed by the Authority for Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
Aero Gross Block	519.12	582.66	759.12	1,633.74	1,788.07
Non-Aero Gross Block	5.45	7.39	10.98	75.09	75.72
Total Gross Block	**524.57**	**590.05**	**770.10**	**1,708.83**	**1,863.79**
Percentage Aeronautical	*98.96%*	*98.75%*	*98.57%*	*95.61%*	*95.94%*
5-year Avg. Gross Block Ratio	***97.57%***				

7.5 Depreciation for the Third Control Period

TKIAL's submission

7.5.1 TKIAL has submitted in the MYTP that "*TKIAL has considered the depreciation for the assets based on the useful life of the assets as per the Companies Act and useful life of various assets as recommended by independent technical evaluation for Lucknow and Ahmedabad Airports…*"

Table 141: Depreciation rates and useful life considered by TKIAL for Third Control Period

Particulars	Book Depreciation	Useful Life (Years)
Terminal Building	4.00%	25
Runway, Taxiway and Apron	5.00%	20
Cargo Complex	4.00%	25
Cargo Equipment	13.33%	7.5

Particulars	Book Depreciation	Useful Life (Years)
Boundary wall	20.00%	5
Software	33.33%	3
IT equipment	33.33%	3
Security equipment	13.33%	7.5
Plant and Machinery	13.33%	7.5
Other Buildings	3.33%	30
Access Road	10.00%	10
Fuel Infrastructure & Hydrant System	13.33%	7.5
Furniture & fixtures	14.29%	7
Vehicles	20.00%	5
Office equipment	20.00%	5

7.5.2 Depreciation has been computed separately on Opening block of assets and on the proposed additions. For the additions to RAB, TKIAL has calculated the depreciation during year of capitalization on 50% of the asset value (assuming that the asset is capitalized in the middle of the Financial Year).

7.5.3 The depreciation amount submitted by TKIAL for the Third Control Period has been presented in the table below:

Table 142: Depreciation amount submitted by TKIAL for the Third Control Period

(Rs. in crores)

Particulars	FY23	FY24	FY25	FY26	FY27	Total
Terminal Building	7.98	8.17	27.19	45.80	72.62	**161.76**
Runway, Taxiway and Apron	14.71	18.04	22.04	22.31	26.67	**103.77**
Cargo Complex	-	-	-	2.02	4.04	**6.05**
Cargo Equipment	0.63	1.26	1.26	1.26	1.26	**5.66**
Boundary wall	-	-	0.80	1.60	6.13	**8.53**
Software	0.01	-	-	-	-	**0.01**
IT equipment	2.06	11.34	19.87	21.50	17.04	**71.81**
Security equipment	0.09	0.33	0.47	0.47	0.47	**1.84**
Plant and Machinery	19.77	24.86	30.02	32.46	29.32	**136.43**
Other Buildings	1.88	2.21	2.63	10.37	18.18	**35.27**
Access Road	2.32	1.60	0.01	-	-	**3.92**
Fuel Infrastructure & Hydrant System	-	2.48	4.97	34.32	63.67	**105.44**
Furniture & fixtures	0.45	0.74	1.08	1.25	1.56	**5.08**
Vehicles	1.03	1.91	2.51	2.86	3.00	**11.31**
Office equipment	0.97	0.69	0.44	0.44	0.32	**2.86**
Intangible Assets	-	-	-	-	-	**-**
Total	**51.90**	**73.63**	**113.28**	**176.65**	**244.28**	**659.74**
Depreciation and Amortization of Opening RAB	49.06	46.43	43.36	40.14	35.12	**214.11**
Depreciation and Amortization of Proposed additions for TCP	2.84	27.2	69.92	136.51	209.16	**445.63**
Total	**51.90**	**73.63**	**113.28**	**176.65**	**244.28**	**659.74**

Authority's examination regarding Depreciation for the Third Control Period

7.5.4 The Authority notes that Opening RAB has been revised from Rs. 442.02 crores (submitted by TKIAL) to Rs. 457.94 crores based on adjustments made to the RAB and mentioned as per the Table 65 of this Consultation Paper. The Authority further notes that on account of revision to the Opening RAB, the depreciation for the Third Control period will also be revised accordingly.

7.5.5 The Authority also notes that most of the useful lives considered by TKIAL are in deviation from those prescribed by AERA vide Order No. 35/2017-18 dated 12th January 2018 regarding determination of useful lives of airport assets. TKIAL in their submission has mentioned that it has considered different rates for certain asset classes based on the recommendations of independent technical evaluation made for Lucknow International Airport and Ahmedabad International Airport. The Authority notes that the reasons justifying the deviation from Order No. 35/2017-18 dated 12th January 2018 was not sufficiently explained in the technical evaluation shared by the Airport Operator. The intention behind the Order is to have a uniform approach in the determination of useful lives for key airport assets, therefore the methodology adopted by TKIAL lacks merit.

7.5.6 Further, the useful life prescribed in AERA's Order No. 35/2017-18 dated 12th January 2018 has considered the typical usage of these assets for an airport and there appears to be no reason for the usage of these assets to vary from the typical usage for TRV. The Authority has also provided TKIAL with adequate maintenance expenditure to enable the airport to maintain the assets in good working conditions during the life of the assets. Therefore, the Authority proposes to not consider the lower useful life submitted by TKIAL for the assets.

7.5.7 The Authority notes as under:

Asset class – Building: The Expert has recommended shorter life for False Ceiling, Sanitation works, Glass facade and Flooring works which appear to be integral part of the Airport Terminal Building. The Authority's Order No. 35/2017-18 does not provide for reducing the life of assets under Asset class - Buildings. The Authority observes that various components mentioned above are also an integral part of the Terminal Building and should be added to the Terminal Building cost by applying the same rate of depreciation as that of buildings. While the technical report provided by the Airport Operator has determined the shorter life to be adopted, it has not provided sufficient rationale for adopting such a shorter useful life. Since these assets are all part of the building, the Authority is of the view that the same rate applicable to building should be applied to these assets and no reduction in life of these assets are called for. Further, the Authority notes that adequate maintenance expenditure is allowed to enable the Airport Operator to maintain the assets in good working condition during its entire life. The Authority has issued Order No. 35/2017-18 as part of its normative approach to various Building Blocks in Economic regulation of Major Airports where it has stated that "The Authority has been of the considered view, that it would be preferable to have as far as practicable, a broad year to year consistency in what Depreciation is charged by the companies as certified by the relevant statutory auditors and what the Authority would take into account in its process of tariff determination. Issue of a notification will ensure this objective." In view of all the above, the Authority is not inclined to deviate from ensuring this objective and therefore proposes not to consider the shorter useful life of 25 years claimed by the Airport Operator for both the Terminal Building and newly projected Cargo terminal building.

Asset Class – Runways. Taxiways and Aprons: The Expert has recommended adopting a shorter life of 20 years based on useful life followed by certain international associations and regulators, like, Federation Aviation Administration – US Department of Transportation, Civil Aviation Authority – UK, Australian Airports Association — Australia, International Civil Aviation Organization, etc., which the Authority feels does not provide proper justification for adopting a shorter useful life. Therefore, the Authority finds no reason to reduce the life of the Runway, which enhances the burden of Airport users by increasing the tariff.

Other Asset Classes: Order No. 35/2017-18 provides for specific determination of life through technical evaluation for specific assets other than those listed in the Order based on specific requirements of the Airport.

The Authority finds that none of the assets in these classes where a shorter life has been adopted as specific assets are based on specific requirement of the Airport. Therefore, the Authority finds no merit in reducing the life of such assets for tariff purposes.

Fuel farm facility — The Authority examined the list of items forming part of Fuel facility including assets planned to be purchased from IOCL and observed that there are assets belonging to different asset category, namely Buildings, Roads, Plant and Machinery, Vehicles etc., and based on the same proposes not to consider the weighted average useful life of 7.5 years claimed by the Airport Operator. Instead, the Authority proposes to adopt the specific depreciation rate prescribed as per Order No. 35/2017-18 for such asset category.

7.5.8 Hence, the Authority proposes to revise the useful lives considered for the assets proposed to be capitalized in the Third Control Period to align with AERA Order No. 35/2017-18 regarding determination of useful lives of airport assets as given below.

Table 143: Useful life for all the assets proposed by the Authority for the Third Control Period

Particulars	Useful Life (Years)	
	TKIAL	Authority
Terminal Building	25	30
Runway, Taxiway and Apron	20	30
Cargo Complex	25	30
Cargo Equipment	7.5	15
Boundary wall	5	5
Software	3	3
IT equipment	3	3(Computers)/6(Servers)
Security equipment	7	15
Plant and Machinery	7	15
Other Buildings	30	30
Access Road	10	10
Fuel Infrastructure & Hydrant System	7.5	15
Furniture & fixtures	7	7
Vehicles	5	8
Office equipment	5	5

7.5.9 Considering the above changes in depreciation rates, revision in the value of opening gross block of assets and proposed capital expenditure, the Authority proposes the following depreciation for the Third Control Period.

Table 144: Depreciation proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Terminal Building	6.00	6.17	6.53	16.38	25.92	**61.00**
Runway, Taxiway and Apron	8.65	8.86	9.90	10.75	13.08	**51.24**
Cargo building	-	-	-	1.04	2.09	**3.13**
Cargo Equipment	0.12	0.23	0.33	0.43	0.43	**1.55**
Boundary wall	0.17	0.17	-	-	-	**0.34**
Software	0.02	0.00	0.00	-	-	**0.03**
IT equipment	1.45	3.05	4.08	4.44	5.05	**18.08**
Security equipment	0.20	0.30	0.40	0.41	0.41	**1.73**
Plant and Machinery	8.06	8.99	11.35	13.52	14.38	**56.30**
Other Buildings	1.72	1.81	2.17	3.32	4.23	**13.25**
Access Road	2.55	0.78	-	-	-	**3.33**

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Fuel	-	-	1.10	4.83	7.46	**13.39**
Furniture & fixtures	0.51	0.66	1.23	1.78	2.26	**6.44**
Vehicles	0.43	0.93	1.43	1.63	1.64	**6.06**
Office equipment	0.87	0.54	0.29	0.28	0.17	**2.16**
Total	**30.74**	**32.50**	**38.82**	**58.83**	**77.13**	**238.02**

Table 145: Depreciation claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	Ref.	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL							
Depreciation of Opening RAB	A	49.06	46.43	43.36	40.14	35.12	**214.11**
Depreciation of Proposed additions for TCP	B	2.84	27.2	69.92	136.51	209.16	**445.63**
Total Aeronautical Depreciation as per TKIAL	**C = A + B**	**51.90**	**73.63**	**113.28**	**176.65**	**244.28**	**659.74**
As per Authority							
Total - Existing Assets	D	29.27	26.84	25.32	24.79	24.39	**130.62**
Proposed Addition*							
Airport	E	1.36	5.42	12.06	27.73	42.76	**89.34**
Cargo	F	0.12	0.23	0.33	1.48	2.52	**4.68**
Fuel Farm	G	-	-	1.10	4.83	7.46	**13.39**
Total - New Assets	**H = E + F + G**	**1.48**	**5.65**	**13.49**	**34.04**	**52.74**	**107.41**
Total Aeronautical Depreciation proposed by the Authority	**I = D + H**	**30.74**	**32.50**	**38.82**	**58.83**	**77.13**	**238.02**
Variance	J=C-I	21.16	41.13	74.46	117.82	167.15	**421.72**

**Assets capitalized during the Third Control Period*

7.6 Regulatory Asset Base (RAB) for the Third Control Period

TKIAL's submission

7.6.1 TKIAL has submitted RAB for the Third Control Period as follows:

Table 146: RAB submitted by TKIAL for the Third Control Period

(Rs. in crores)

Particulars	Ref.	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Opening RAB	A	441.88	447.80	682.21	1,608.01	2,463.94	
Additions	B	57.82	308.05	1,039.08	1,032.58	1,589.00	**4,026.52**
Depreciation	C	51.90	73.63	113.28	176.65	244.28	**659.74**
Closing RAB	**D = A + B - C**	**447.80**	**682.21**	**1,608.01**	**2,463.94**	**3,808.66**	
Average RAB	**E = (A + D) / 2**	**444.84**	**565.00**	**1,145.11**	**2,035.98**	**3,136.30**	

Authority's examination of RAB for the Third Control Period

7.6.2 Based on its examination of the Deemed Initial RAB, the aeronautical capital expenditure for TCP and the aeronautical depreciation for TCP, the Authority proposes the RAB for the Third Control Period, as given in the table below:

Table 147: RAB proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	Ref.	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Opening RAB	A	457.94	458.55	489.59	627.23	1,443.02	
Additions	B	31.35	63.54	176.46	874.62	154.33	**1,300.30**
Depreciation	C	30.74	32.50	38.82	58.83	77.13	**238.02**
Closing RAB	**D = A + B - C**	**458.55**	**489.59**	**627.23**	**1,443.02**	**1,520.22**	
Average RAB	**E = (A + D) / 2**	**458.25**	**474.07**	**558.41**	**1,035.13**	**1,481.62**	

7.6.3 The Authority proposes to consider RAB for the TRV for the Third Control Period as detailed in Table 147.

7.7 Authority's proposals regarding Capital Expenditure (CAPEX), Depreciation and Regulatory Asset Base (RAB) for the Third Control Period

Based on the material before it and based on its analysis, the Authority proposes the following with regard to CAPEX, Depreciation and Regulatory Asset Base for the Third Control Period.

7.7.1 To consider the Terminal Building ratio of 90%:10% in line with the Study on Allocation of Assets, IMG norms and as approved for other similar Airports.

7.7.2 To allow IDC during the Third Control Period and not to allow Financing Allowance as mentioned in para 7.3.147.

7.7.3 To adopt the capitalization of Aeronautical Expenditure for the Third Control Period in accordance with Table 139.

7.7.4 To true up the Aeronautical Capital expenditure based on actuals, cost efficiency and reasonableness, at the time of determination of tariff for Fourth Control Period.

7.7.5 To reduce (adjust) 1% of the uncapitalized project cost from the ARR in case any particular capital project is not completed/ capitalized as per the approved capitalization schedule, as mentioned in para 7.3.144. The same will be examined during the true up of the Third Control Period, at the time of determination of tariff for the Fourth Control Period.

7.7.6 To consider GST on RAB/CWIP and Stamp Duty on actual incurrence basis, as detailed in para 7.3.150 and 7.3.149 respectively.

7.7.7 To examine the accounting of input tax credits in accordance with Chapter V of The Central Goods and Services Tax Act, 2017 and make necessary adjustments at the time of determination of tariffs for the Fourth Control Period (as explained in para 7.3.150).

7.7.8 To adopt Aeronautical Depreciation as per Table 144 for the Third Control Period.

7.7.9 To true up the Depreciation of the Third Control period based on the actual asset additions and actual date of capitalization during the tariff determination of the Fourth Control Period.

7.7.10 To consider average RAB for the Third Control Period for TRV as per Table 147.

7.7.11 To true up the RAB based on actuals at the time of tariff determination for the Fourth Control period.

8 FAIR RATE OF RETURN (FRoR) FOR THE THIRD CONTROL PERIOD

8.1 TKIAL's submissions regarding Fair Rate of Return (FRoR) for the Third Control Period

Cost of Equity

8.1.1 TKIAL has adopted the Cost of equity as computed by the Technical Expert engaged for determining Cost of Equity for Chaudhary Charan Singh International Airport, Lucknow. The study has indicated a cost of equity of 17.11%, 17.28% for different scenarios during the Third Control Period.

8.1.2 Based on the same, TKIAL has submitted 17.30% as Cost of Equity for Thiruvananthapuram International Airport, Thiruvananthapuram.

8.1.3 TKIAL submitted the following assumptions for estimating the Cost of equity:

- Risk-free rate was calculated by taking the 10-year average daily yield, for 10-year Government of India (GoI) securities i.e., 7.57%
- Asset beta was derived based on regressed beta computed for comparable listed airports (weighted) and adjusted for appropriate leverage to determine the levered Equity beta.
- Although various debt-equity (leverage or gearing) ratios had been analysed, the assumed leverage for computation of Cost of equity was the normative approach and standards adopted in earlier tariff determination exercises of the Authority, i.e., debt-equity ratio of 48:52. For such leverage ratio, the Equity beta was computed ranging from 1.35 – 1.38.
- An average Equity Risk Premium was computed by analyzing a list of studies and standard market indices. Accordingly, Equity risk premium over risk-free rate was computed as 7.06%.

Table 148: Cost of equity computation submitted by TKIAL for the Third Control Period

Particulars	Value
Risk free rate	7.57%
Equity beta	1.38
Equity risk premium	7.06%
Cost of equity	**17.30%**

Cost of Debt

8.1.4 TKIAL has considered Cost of Debt for the Third Control Period at 12%.

8.1.5 The audited financial statements of TRV (Kerala) International Airport Limited (TKIAL) for the year ended 31st March 2023 disclosed that it has issued long-term secured, non-convertible redeemable debentures to its shareholder group company, Adani Airport Holdings Limited, in order to raise funds at interest rate of 12% p.a. Further, it also raised two inter-corporate deposits from the same shareholder group company at interest rates of 12.25% p.a. and 12% p.a. respectively with varying repayment periods.

8.1.6 Adani Airport Holdings Limited announced that it raised a 3-year External Commercial Borrowing (ECB) facility from a consortium of Standard Chartered Bank and Barclays Bank PLC. The "all in" borrowing cost of this facility is 12.10% p.a., the breakdown of which is provided in the table below.

Table 149: Breakdown of all-in borrowing cost of TRV submitted by TKIAL

Parameters	Value
Secured Overnight Financing Rate (SOFR) reference	2.28%
Spread over SOFR	4.25%
Withholding tax gross up (at 5% of SOFR + spread)	0.33%
One-year forwarding Dollar-Rupee hedge cost (mandatory as per RBI guidelines)	4.51%
Other Charges	0.73%
All-in Cost of External Commercial Borrowing	**12.10%**

8.1.7 It was mentioned that a part of the proceeds raised from this facility are being on-lent to TKIAL for the purpose of financing its capital expenditure at the rate of 12.25% p.a. For the purposes of computation of weighted average cost of capital, cost of debt has been assumed as 12% p.a.

Fair Rate of Return

8.1.8 Based on the Cost of equity, Cost of debt and gearing ratio, TKIAL has submitted the following FRoR for the Third Control Period:

Table 150: FRoR submitted by TKIAL for the Third Control Period

Particulars	%
Cost of Debt	12.00%
Cost of Equity	17.30%
D/E Ratio	48:52
FRoR	**14.76%**

8.2 Authority's examination regarding Fair Rate of Return (FRoR) for the Third Control Period

Cost of Equity

8.2.1 The Authority had commissioned independent studies for the evaluation of cost of capital separately, in case of each PPP Airport, namely DIAL, MIAL, GHIAL, BIAL and CIAL through a premier institute, namely Indian Institute of Management (IIM) Bangalore and proposes to use these study reports as a basis, to the extent applicable and relevant, to ascertain the Cost of equity of TRV for the Third Control Period.

8.2.2 The Authority believes that the Cost of Equity for the purpose of determination of FRoR has to be fairly consistent across PPP airports so that there is uniformity of evaluation of their inherent financial risk, and compensation for the same in the form of return on RAB. The independent study reports have drawn from the international experience of airports and their conclusions have been evaluated to the extent comparable with TRV in terms of hybrid till, ownership structure, size, scale of operations and regulatory framework. The average Cost of equity arrived at by the independent study reports is 15.18%.

8.2.3 The above independent study reports have used the Capital Asset Pricing Model (CAPM) and a notional gearing (Debt: Equity) ratio of 48:52 to determine the levered Equity beta and accordingly, derive the Cost of equity.

8.2.4 Based on the above reports, the Authority proposes the Cost of equity of 15.18% for TRV for computation of the Fair Rate of Return for the Third Control Period.

Cost of Debt

8.2.5 The Authority notes that TKIAL has considered Cost of debt at 12% for the Third Control Period based on its current borrowing rate from a related party and based on Adani Airport Holdings Limited's all-in borrowing cost of 12.10%.

8.2.6 Since the Airport has not obtained any credit rating from an external rating agency, there is no direct comparable entity or market data for determining cost of debt for TRV.

8.2.7 However, the Authority recommends that the Airport bring in further efficiencies in its cost of borrowing by leveraging its parent entity's financial strength in order to reduce the interest rates. This suggestion is also in keeping with the spirit of PPP whereby it is expected that the financial strength of PPP airports will be maintained at an optimal level and their cost of capital will be within reasonably allowable limits. TKIAL should avail the synergies and benefits owed to it by its strong shareholding and balance sheet of its Parent companies and therefore work towards bringing down the cost of debt to the same level as other PPP airports.

8.2.8 The Authority also notes that the average cost of debt of the other five PPP airports viz., DIAL, MIAL, GHIAL, BIAL and CIAL is 8.96%.

8.2.9 Accordingly, the Authority has considered the Cost of Debt of 9% for the computation of Fair Rate of Return. The Authority also directs TKIAL to ensure that Related Party transactions, if any, with respect to borrowing of funds are benchmarked with most optimum rates available and is well justified.

Fair Rate of Return

8.2.10 The FRoR as recalculated by the Authority after considering the analysis discussed above is summarized in the table below:

Table 151: FRoR proposed by the Authority for the Third Control Period

Parameters	Value
Cost of equity	15.18%
Cost of debt	9.00%
Weighted average gearing of equity	52.00%
Weighted average gearing of debt	48.00%
Fair Rate of Return	**12.21%**

8.2.11 With respect to the Notional gearing ratio of 48:52, the Authority would like to reiterate that FRoR is computed on the basis of cost of equity and Cost of Debt. It had determined the Cost of Equity based on the IIM Bangalore's independent study reports for other PPP Airports whereas the Cost of Debt was computed after considering the average bank lending rate of public sector banks and scheduled commercial banks as per the Reserve Bank of India's publication of December 2022 and the Cost of Debt of five other PPP airports viz., DIAL, MIAL, GHIAL, BIAL and CIAL. Since the debt equity mix had been decided by the Authority considering the efficient capital structure and the interest of all the Stakeholders, the notional gearing ratio of 48: 52 will not be trued up during the tariff determination for the next Control Period.

8.3 Authority's proposals regarding Fair Rate of Return (FRoR) for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to FRoR for the Third Control Period

8.3.1 To consider the Cost of equity at 15.18%.

8.3.2 To consider the notional debt to equity (gearing) ratio of 48:52 in line with target gearing ratio being considered in case of other PPP airports.

8.3.3 To consider cost of debt of 9% for the Third Control Period,

8.3.4 To consider FRoR of 12.21% for the Third Control Period based on above mentioned Cost of equity, Cost of debt and gearing ratio.

9 INFLATION FOR THE THIRD CONTROL PERIOD

9.1 TKIAL's submissions regarding Inflation for the Third Control Period

9.1.1 TKIAL has submitted an inflation rate of 5% for projecting the operating expenses including utility expenses, rates & taxes, independent engineer fees and fuel farm O&M expenses.

9.1.2 TKIAL has forecasted their inflation for the Third Control Period by considering the mean Wholesale Price Index (All Commodities) of 10.4% for FY 2022–2023 and 5% every year from FY 2023–2024 onwards. This estimation is in accordance with the results of the RBI survey of professional forecasters on macroeconomic indicators released on 7th December 2022.

Table 152: Inflation rates submitted by TKIAL for the Third Control Period

Particular	FY23	FY24	FY25	FY26	FY27
WPI Inflation	10.40%	5.00%	5.00%	5.00%	5.00%

9.2 Authority's examination regarding Inflation for the Third Control Period

9.2.1 The Authority has examined TKIAL's submission regarding inflation to be considered during the Third Control Period and notes that TKIAL has considered WPI from the RBI's 79th round of survey. However, the Authority proposes to consider the recent "Results of the Survey of Professional Forecasters on Macroeconomic Indicators – Round 85th released on 8th December 2023 published by the Reserve Bank of India (RBI).

9.2.2 Accordingly, the Authority proposes to consider the actual Wholesale Price Index (All Commodities) inflation in FY 2022-23 and the mean of Wholesale Price Index inflation forecast (All commodities) for FY 2023-24 till FY 2026-27 as given in the 85th Round of survey of professional forecasters on macroeconomics indicators of RBI, for the Third Control Period for TRV.

9.2.3 The Authority assumes that the inflation rate would be stable and remain constant from FY 2024-25 till FY 2026-27. Accordingly, the following table shows the inflation rates as proposed by the Authority for the Third Control period:

Table 153: Inflation rates proposed by the Authority for the Third Control Period

Particular	FY23	FY24	FY25	FY26	FY27
WPI Inflation	9.42%	0.30%	3.80%	3.80%	3.80%

9.3 Authority's proposal regarding Inflation for the Third Control Period

Based on the material before it and in its analysis, the Authority proposes:

9.3.1 To consider the inflation rate proposed in Table 153.

10 OPERATION & MAINTENANCE EXPENSES FOR THE THIRD CONTROL PERIOD

10.1 TKIAL's submission regarding Operation and Maintenance Expenses for the Third Control Period

10.1.1 TKIAL in its MYTP submission has stated that the Aeronautical Operation and Maintenance (O&M) expenses for the Third Control Period have been estimated based on the following assumptions:

- **Expansion of TRV**: TKIAL would be undertaking the upgradation and expansion of the existing Terminal-II, which is expected to be operationalized in FY 2025-26. The expansion will result in an increase in the total Terminal area from 59,300 sqm to 63,000 sqm as given in the table below.

Table 154: Details of the change in the Terminal Building area as projected by TKIAL

Particulars (sqm)	Existing	FY 26
Terminal-I	15,800	-
Terminal-II	43,500	63,000
Total	**59,300**	**63,000**
% increase		***6.24%***

- **Inflation**: TKIAL has considered inflation as per the 79th round of RBI forecaster survey dated December 2022 for all expenses.
- **Base Year**: FY 2022-23 was considered as the base year and the relevant growth percentages were applied to the same. TKIAL had estimated the expenses for FY 2022-23 by extrapolating the expenses incurred for the 9 months period from April 2022 to December 2022.
- **Fuel Operating Expenses**: TKIAL has projected the O&M expenses for the 4 tariff years of the Third Control Period starting from FY 2023-24 till FY 2026-27 based on the assumption that the operations will commence from July 2023 onwards, i.e., for a nine-month period in FY 2023-24. TKIAL intends to outsource the Fuel Farm's day-to-day operations and management for a fee. TKIAL plans to begin operations by hiring refuellers/bowsers for the first year of operation, by which time they anticipate receiving new refuellers/bowsers.
- **Cargo Operating Expenses**: TKIAL has estimated cargo expenses for the Third Control Period based on the fact that they started domestic cargo operations from August 2022 and the assumption that they will start the international cargo operation from 1st April 2023. Further, Cargo expenses have been increased Y-o-Y by 10% for the remaining three (3) tariff years of the Third Control Period.
- TKIAL has also submitted that considering airports have high fixed costs associated with the provision and maintenance of infrastructure and services such as safety and security (these are incurred regardless of traffic levels) there is limited scope to curtail costs when facing a downturn in demand.

10.1.2 TKIAL has submitted the following categories of O&M expenses in its MYTP submission.

Table 155: Category wise O&M expenses claimed by TKIAL in the MYTP for the Third Control Period

Type of Expense	Expense Category
O&M expenses	Manpower costs: AAI employees
	Manpower costs: TKIAL employees

Type of Expense	Expense Category
	Utility Expenses
	IT expenses
	Rates & taxes
	Security expenses
	Corporate Support Service expenses
	Administrative Expenses - Collection charges on UDF
	Administrative Expenses - Others
	Insurance
	R&M
	Other operating expenses
	Independent Engineer Fees
	Runway recarpeting
Fuel Operating expenses	O&M Expenses
	Bowser Rental
Cargo Operating expenses	Inhouse salary cost
	O&M Cost
	Customs Cost Recovery

10.1.3 The above expenses do not include Concession Fee, since it is not considered as part of Aeronautical O&M Expenses, as per Clause 27.1.2 of the CA, which states as follows:

"The Monthly Concession Fee paid/ payable by the Concessionaire to the Authority under and pursuant to the terms of this Agreement shall not be included as a part of costs for provision of Aeronautical Services and no pass-through would be available in relation to the same."

10.1.4 TKIAL has considered all O&M expenses as 100% Aeronautical.

10.1.5 The Aeronautical O&M expenses including Fuel and Cargo Operating Expenses submitted by TKIAL for the Third Control Period are as given below.

Table 156: Aeronautical O&M expenses submitted by TKIAL for Third Control Period

(Rs. in crores)

Particulars (Rs. in crores)	FY 23	FY 24	FY 25	FY 26	FY 27	Total
O&M expenses						
Manpower costs: AAI employees	69.04	75.94	73.33	67.36	74.10	**359.77**
Manpower costs: TKIAL employees	14.16	32.18	51.12	64.89	76.13	**238.48**
Utility Expenses	14.28	15.60	17.18	19.84	21.81	**88.72**
IT expenses	6.00	12.00	14.00	16.87	17.72	**66.59**
Rates & taxes	1.00	1.05	1.10	1.23	1.29	**5.67**
Security expenses	6.77	8.70	10.06	11.63	12.50	**49.67**
Corporate Support Service expenses	15.00	30.00	35.00	40.00	42.00	**162.00**
Administrative Expenses Collection charges on UDF	0.86	1.11	1.28	1.40	1.51	**6.17**
Administrative Expenses - Others	15.00	36.00	39.60	43.56	47.92	**182.08**
Insurance	2.06	2.57	3.90	5.14	6.94	**20.61**
R&M	28.85	34.17	46.53	83.32	117.18	**310.04**
Other operating expenses	19.00	28.50	32.92	38.09	40.94	**159.45**
Independent Engineer Fees	3.78	3.78	3.78	3.97	4.17	**19.49**
Runway recarpeting	-	-	25.90	30.33	27.38	**83.61**
Total O&M expenses (A)	**195.82**	**281.60**	**355.71**	**427.63**	**491.58**	**1,752.35**
Fuel Operating expenses						

Particulars (Rs. in crores)	FY 23	FY 24	FY 25	FY 26	FY 27	Total
O&M Expenses	-	8.53	12.07	13.17	14.29	**48.06**
Bowser Rental	-	1.20	1.26	-	-	**2.46**
Total Fuel O&M expenses (B)	**-**	**9.73**	**13.33**	**13.17**	**14.29**	**50.52**
Cargo Operating expenses						
Inhouse salary cost	-	1.00	1.35	2.39	2.86	**7.61**
O&M Cost	1.44	1.95	2.64	9.34	11.16	**26.53**
Customs Cost Recovery	-	1.80	1.98	2.18	2.40	**8.35**
Total Cargo O&M expenses (C)	**1.44**	**4.75**	**5.97**	**13.91**	**16.42**	**42.50**
Total Aeronautical O&M expenses (A+B+C)	**197.26**	**296.08**	**375.01**	**454.72**	**522.30**	**1,845.36**

10.1.6 The growth rates assumed by TKIAL for total Aeronautical O&M expenses have been presented in the table below:

Table 157: Growth rates for total Aeronautical O&M expenses submitted by TKIAL for the Third Control Period

Expense Category	Basis	FY 23	FY 24	FY 25	FY 26	FY 27
O&M expenses						
Manpower costs: AAI employees	Y-o-Y	10.00%	10.00%	10.00%	10.00%	10.00%
Manpower costs: TKIAL employees	Y-o-Y	10.00%	10.00%	10.00%	10.00%	10.00%
Utility Expenses - Electricity Charges	Inflation	-	5.00%	5.00%	5.00%	5.00%
Utility Expenses - Water and Fuel Charges	Passenger	-	28.49%	15.52%	9.45%	7.47%
IT expenses	Employee	-	100.00%	16.67%	14.29%	5.00%
Rates & taxes	Inflation	-	5.00%	5.00%	5.00%	5.00%
Security expenses	Passenger	-	28.49%	15.52%	9.45%	7.47%
Corporate Support Service expenses	Employee	-	100.00%	16.67%	14.29%	5.00%
Administrative Expenses – Collection charges on UDF	Passenger	-	28.49%	15.52%	9.45%	7.47%
Administrative Expenses – Others	Y-o-Y	-	10.00%	10.00%	10.00%	10.00%
Insurance	Y-o-Y	-	10.00%	10.00%	10.00%	10.00%
R&M	Y-o-Y	-	10.00%	10.00%	10.00%	10.00%
Other operating expenses	Passenger	-	50.00%	15.52%	9.45%	7.47%
Independent Engineer Fees	Inflation	-	-	-	5.00%	5.00%
Runway recarpeting*						
Fuel Operating expenses						
O&M Expenses	Inflation	-	-	5.00%	5.00%	5.00%
Bowser Rental	Inflation	-	-	5.00%	5.00%	5.00%
Cargo Operating expenses						
Inhouse salary cost	Y-o-Y	-	-	10.00%	10.00%	10.00%
O&M Cost	Y-o-Y	-	-	10.00%	10.00%	10.00%
Customs Cost Recovery	Y-o-Y	-	-	10.00%	10.00%	10.00%

** Amortized over a 5-year period*

10.1.7 In addition to the above growth rates TKIAL has considered a onetime increase of 6.24% in FY 2025-26 considering the increase in terminal building area as given in para 10.1.1 for Utility, Rates & Taxes, IT, Security and Other Operating expenses.

10.1.8 TKIAL has also considered a return on the unamortized portion of runway recarpeting expense at 14.76% FRoR commencing from FY 2024-25.

10.2 Authority's examination regarding Operation and Maintenance expenses for the Third Control Period.

10.2.1 The Authority has examined the Operation and Maintenance expenses based on the following parameters:

A. Consideration of actual expenses for FY 2022-23 and revision in growth rates of various expenses
B. Re-allocation of the expenses into aeronautical, non-aeronautical and common.
C. Rationalization of Employee Head Count

10.2.2 The Authority also notes that TRV is a brownfield airport and has been in operation since 1985. The Authority has accordingly considered rationalization of costs in certain categories considering that these were operated at optimal level of costs by AAI earlier.

Allocation of O&M expenses to Aeronautical and Non-Aeronautical activities

Manpower expenses of AAI employees

10.2.3 TKIAL has considered the Manpower Expenses of AAI employees as 100% Aeronautical as this expense is considered as pass through in the determination of Aeronautical charges as per Clause 6.5 read with Clause 28.4.3 of the Concession Agreement. The Authority, in this regard examined the extract of the relevant clauses of the Concession Agreement which reads as under:

- Clause 6.5.1. states that:

  "(i) "Select Employees" shall mean those employees of the Authority as set forth in Schedule S (of the rank of assistant general manager and below) who are posted at the Airport by the Authority and shall be deployed at the Airport for the duration of the Joint Management Period and Deemed Deputation Period.

  The Select Employees shall stand reduced to the extent of employees who retire, are deceased or otherwise separated from Authority's services during the Joint Management Period or Deemed Deputation Period. It is clarified that the Select Employees shall not be reduced to the extent of employees who are transferred by AAI.

  (ii) "Joint Management Period" shall mean the period commencing from the COD and ending on the date which is I (one) calendar year after the COD.

  (iii) "Deemed Deputation Period" shall mean the period commencing from the expiry of the Joint Management Period and ending on the date which is 2 (two) calendar years therefrom."

- Clause 6.5.4 states that:

  "The Concessionaire shall bear the Select Employee Costs for the Joint Management Period and Deemed Deputation Period."

- Clause 6.5.10 states that:

  "If, at the expiry of the Deemed Deputation Period, the number of Accepting Employees is less than 60% (sixty) percent of the Select Employees (the "Deficit Employees"), the Concessionaire shall, commencing from the expiry of the Deemed Deputation Period pay to the Authority, on a monthly basis, such amounts as may be indicated in an invoice to be raised by the Authority on the Concessionaire with regard to the

emoluments payable by the Authority in respect of such Deficit Employees (the "Deficit Employee Costs").

(ii) The Deficit Employee Costs shall be considered for pass-through in the determination of the Aeronautical Charges."

- Clause 28.4.3. states that:

  "The Parties agree and acknowledge that the Concessionaire expressly waives its right to seek as pass-through in the Aeronautical Charges such costs and/or expenses which the Concessionaire is restrained under this Agreement from seeking to be passed-through thereunder."

10.2.4 The Authority, on review of the above clauses of the CA, proposes to consider the Manpower Expenses of AAI employees up to 'Deemed Deputation Period' as Common since the Manpower of AAI is used for both Aeronautical and Non-aeronautical activities. Accordingly, the Authority proposes to apportion the Manpower Expenses of AAI employees up to 'Deemed Deputation Period' to Aeronautical activities in the ratio of 98.89%:1.11% (Aeronautical: Non-aeronautical) based on department-wise Employee Headcount of AAI employees as of March 2023 (refer Table 162).

10.2.5 In respect of the Manpower Expenses of AAI employees relating to 'Deficit Employees' after the expiry of the Deemed Deputation Period, the Authority proposes to consider the same as 100% pass through as mandated by Clause 6.5.10. of the CA.

Manpower expenses of employees of TKIAL

10.2.6 TKIAL has considered the Manpower Expenses of its own employees as 100% Aeronautical. However, the Authority notes that the manpower expense should be allocated based on the Employee Head Count Ratio for TKIAL employees considering the department and nature of work performed. The EHCR is computed as the 5-year average ratio after considering the Employee Head Count projected for TKIAL for the entire Third Control Period from FY 2022-23 till FY 2026-27.

It is pertinent to note here that the Authority has rationalized the aeronautical Employee Headcount of TKIAL and derived the Aeronautical EHCR for each tariff year as well as 5-year average of such ECHR i.e., 96.44%:3.56% (refer Table 166) for the entire Third Control Period.

Utility expenses

10.2.7 The Authority notes that TKIAL has allocated the Electricity expenses after netting off the proposed recoveries to be made from the Concessionaires for Non-aeronautical activities and that TKIAL has considered the resulting net Electricity expenses as 100% Aeronautical. The Authority notes that this allocation is consistent with that followed in similar airports and proposes to consider the same. TKIAL has considered the Water & Fuel charges as 100% Aeronautical. However, the Authority proposes to apportion the Water & Fuel charges in the Gross Block ratio of 97.57%:2.43% (Aeronautical: Non-aeronautical). The Gross Block ratio is computed as the 5-year average for the period from FY 2022-23 to FY 2026-27 of the Third Control Period (refer Table 140).

IT expenses, Security expenses and Insurance expenses

10.2.8 The Authority notes that TKIAL has considered the expenses towards IT, Security and Insurance as 100% Aeronautical. However, the Authority proposes to apportion the IT expenses, Security expenses and Insurance expenses in the Gross Block ratio of 97.57%:2.43% (Aeronautical: Non-aeronautical). The Gross Block ratio is computed as the 5-year average for the period from FY 2022-23 to FY 2026-27 of the Third Control Period (refer Table 140).

Administrative expenses

10.2.9 The Authority notes that TKIAL has considered Administrative Expenses including the Collection charges as 100% Aeronautical. The Authority accepts TKIAL's allocation of collection charges on UDF as 100% Aeronautical as it is relating to the expenses incurred for the collection of an Aeronautical charge. For the other administrative expenses, the Authority is of the view that the expenses which are administrative in nature should be apportioned in the Gross Block ratio of 97.57%:2.43%. The Gross Block ratio is computed as the 5-year average for the period from FY 2022-23 to FY 2026-27 of the Third Control Period (refer Table 140).

Corporate Support Service expenses

10.2.10 The Authority observed that TKIAL has considered Corporate Support Service expenses as 100% aeronautical. TKIAL has engaged an Independent Consultant to conduct a Study on the allocation of Corporate Costs of both the Holding Companies of TKIAL. TKIAL has shared a Note on the Study report which provides the types of services/costs that have to be allocated to TKIAL, along with the basis of allocation of such costs.

TKIAL has derived the allocable CSS expense based on the study. However, the basis for allocation of the costs towards Aeronautical and Non-aeronautical activities has not been provided in the Study report. The Authority is of the view that in the absence of an appropriate basis, the CSS expenses is to be allocated in the revised Employee Headcount ratio, i.e., 96.44%:3.56% (based on 5-year average ratio of TKIAL employees derived as shown in Table 166) as also mentioned in the Study on Opex (refer Annexure 2 of Chapter 17 of this Consultation Paper).

Expenses towards Repairs & Maintenance, Rates & Taxes and Other operating expenses

10.2.11 The Authority notes that TKIAL has considered Repairs and Maintenance, Rates and Taxes and Other Operating expenses (which includes Housekeeping, Horticulture and Hiring expenses) as 100% Aeronautical in its submission. However, the Authority proposes to re-allocate these expenses in the Terminal Building ratio of 90%:10% (refer para 7.4.4 in Chapter 7 above).

Amortization of runway recarpeting expenses, Fuel and Cargo Operating expenses

10.2.12 TKIAL has considered the expense towards Amortization of Runway Recarpeting, Fuel and Cargo Operating expenses as 100% Aeronautical. The Authority finds this allocation to be reasonable and proposes to consider the same. Further, the Authority notes that the classification of Fuel and Cargo expenses as 100% Aeronautical is as per Section 2(a) of the AERA Act 2008.

10.2.13 The Authority's proposal for allocation of O&M expenses of TRV as compared to that submitted by TKIAL has been summarized in the table below:

Table 158: Allocation of O&M expenses for TRV proposed by the Authority for the Third Control Period

Expense Category	Allocation as per TKIAL	Allocation as per the Authority	Allocation %*
Manpower costs: AAI employees (Up to Deemed Deputation Period)	Aeronautical	EHCR - AAI Employees	98.89%

Expense Category	Allocation as per TKIAL	Allocation as per the Authority	Allocation %*
Manpower costs: AAI employees (Deficit Employee Cost)	Aeronautical	Aeronautical	100.00%
Manpower costs: TKIAL employees	Aeronautical	EHCR - TKIAL Employees	96.44%
Utility Expenses - Electricity Cost	Aeronautical	Aeronautical	100.00%
Utility Expenses - Water & Fuel Cost	Aeronautical	GBR	97.57%
IT expenses	Aeronautical	GBR	97.57%
Rates & taxes	Aeronautical	TBLR	90.00%
Security expenses	Aeronautical	GBR	97.57%
Corporate Allocation	Aeronautical	EHCR - TKIAL Employees	96.44%
Administrative Expenses - Collection charges on UDF	Aeronautical	Aeronautical	100.00%
Administrative Expenses - Others	Aeronautical	GBR	97.57%
Insurance	Aeronautical	GBR	97.57%
R&M	Aeronautical	GBR	97.57%
Other operating expenses	Aeronautical	TBLR	90.00%
Independent Engineer Fees	Aeronautical	Aeronautical	100.00%
Runway recarpeting	Aeronautical	Aeronautical	100.00%
Fuel O&M expenses	Aeronautical	Aeronautical	100.00%
Cargo O&M expenses	Aeronautical	Aeronautical	100.00%

**The ratio for EHCR – TKIAL Employees and GBR as given in the table is the 5-year average ratios for the period from FY 2022-23 till FY 2026-27.*

One time escalation claimed by TKIAL

10.2.14 One time escalation claimed by TKIAL for various expenses in FY 2025-26 has been analyzed by the Authority. The Authority notes that TKIAL has claimed a one-time increase of 6.24% in line with the proposed increase in the area of the Terminal Building. However, the Authority is of the opinion that the increase in the expenses will not be directly proportional to the increase in the Terminal Building area, due to technological innovation, advancements and economies of scale. Hence, the Authority proposes to consider 2/3rd (i.e., 4.16%) of the escalation rates claimed by the AO (6.24%) for expenses such as Utilities, IT, Security and Other Operating expenses. However, for Rates & Taxes, the Authority proposes to consider the one-time escalation at 6.24% as claimed by the AO due to increase in terminal building area as mentioned in Table 159. As per Authority's proposal the expansion of Terminal-II by 19,500 sqm is expected to be capitalized in FY 2025-26 (refer Para 7.3.41iii)h). The Authority expects this expanded portion of Terminal-II to be fully operationalized in FY 2026-27. Therefore, the Authority proposes to consider one time increase in FY 2026-27 as against the FY 2025-26 consider by TKIAL in its submission. The details of escalation rates submitted by the AO and that proposed by the Authority for all the aforementioned expenses are shown in the below:

Table 159: Projected Terminal Building area submitted by TKIAL

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
Terminal-I	15,800	15,800	15,800	-	-
Terminal-II	43,500	43,500	43,500	63,000	63,000
Terminal Area in sqm	**59,300**	**59,300**	**59,300**	**63,000**	**63,000**
% increase		***0.00%***	***0.00%***	***6.24%***	***0.00%***

Table 160: One-time escalation in FY 2025-26 as claimed by TKIAL and proposed by the Authority

One-time Escalation	Claimed by TKIAL	Proposed by the Authority
Year of escalation	**FY 2025-26**	**FY 2026-27**
Utility expenses	6.24%	4.16%
IT expenses	6.24%	4.16%
Rates & taxes	6.24%	6.24%
Security expenses	6.24%	4.16%
Other operating expenses	6.24%	4.16%

10.2.15 The submission made by TKIAL regarding the various operational expenses and their growth over the Third Control Period have been analysed by the Authority and its proposals for such expenses are as elaborated below:

Manpower Expenses

The Authority, on its examination of TKIAL's submission towards Manpower expenses notes the following:

10.2.16 **Manpower Expenses of AAI employees** – TKIAL has projected the expense towards Select Employees of AAI employees across all the five (5) tariff years in the Third Control Period as per Clause 6.5.1 of the Concession Agreement entered into between AAI and the Airport Operator, the extract of which has been provided under para 10.2.3

- TKIAL has claimed Manpower Expenses for 'Select Employees' (refer the table below for the department wise list) till the end of the Deemed Deputation Period. 'Deficit Employee Cost' has been computed at 60% of 'Select Employees' cost as stated in Clause 6.5.10 of the Concession Agreement for the remaining portion of the Third Control Period.
- TKIAL has considered an escalation of 10% Y-o-Y towards Manpower Expenses of AAI employees.
- The department-wise list of 'Select Employees' of AAI deputed at TRV as of March 2023 is as shown below:

Table 161: List of department-wise Select Employees of AAI deputed to TRV as of 31st March 2023

Department	Employee Count in Mar'23
Aircraft Rescue and Fire Fighting (ARFF)	94
Terminal and Operation	23
Engineering & Maintenance	74
Security	1
Information Technology	12
Human Resources and Admin (HRA)	58
Finance	7
Commercial	2
Total Manpower	**271**

- The Authority notes that TKIAL has considered all employees, irrespective of their department, as aeronautical employees. However, the services rendered by these employees are to both aeronautical and non-aeronautical areas of the airport. The Authority therefore has reclassified the employees in line with the classification proposed by the Study on Opex (refer Table 70 of the Study) and recomputed the EHCR as shown in the table below.

Table 162: Allocation of department-wise Select Employees of AAI deputed to TRV as of 31st March 2023 into Aeronautical and Non-Aeronautical

Department	Employee Count in Mar'23	Allocation
Aviation Rescue and Fire Fighting (ARFF)	94	Aeronautical
Terminal and Operation	23	Aeronautical
Engineering & Maintenance	74	Aeronautical
Security	1	Common
Information Technology	12	Common
Human Resources and Admin	58	Common
Finance	7	Common
Commercial	2	Non-Aeronautical
Total Manpower Requirement	**271**	
Allocation		
Aeronautical	191	
Non-Aeronautical	2	
Common	78	
Total	**271**	
Common Employee Allocation		
Common Aeronautical employees	77	
Common Non-Aeronautical employees	1	
Total Common employees	**78**	
Head Count after allocation of Common employees		
Total Aeronautical employees	268	
Total Non-Aeronautical employees	3	
Total employees	**271**	
Aeronautical %	**98.89%**	
Non-Aeronautical %	1.11%	
EHCR	**98.89:1.11**	

- The Authority notes that the Manpower Expense of AAI employees are accounted by TKIAL, based on the invoice raised by AAI for the 'Select Employees' deputed to TRV, on a monthly basis. TKIAL has arrived at an average annual per employee cost of approximately Rs. 25 lakhs per annum (which includes the estimated cost of retirement benefits for such employees) for FY 2022-23 based on the extrapolation of monthly employee cost incurred by TKIAL from April 2022 to December 2022.
- The Authority also notes that the Manpower Expenses of AAI employees were considered as 100% Aeronautical expenses by TKIAL.
- The Authority proposes to consider the Manpower Expenses of AAI employees up to 'Deemed Deputation Period' and after the expiry of such period the expenses relating to 'Deficit Employee cost' according to the explanation provided in the relevant clauses of the Concession Agreement for such expenses. The Authority also proposes to allocate the expenses into Aeronautical and Non-aeronautical based on the explanation in paras 10.2.4 and 10.2.5.
- Further, the Authority observes that TKIAL has submitted vide e-mail dated 19th July 2023, that they have incurred actual Manpower expenses for AAI employees amounting to Rs. 63.14 crores for FY 2022-23, as compared to estimate of Rs. 69.04 crores submitted as part of the MYTP. The Authority notes that TKIAL has considered the same as 100% Aeronautical which the authority proposes to re-allocate based

on the prescribed allocation ratio of 98.89%:1.11% (refer para 10.2.4) which works out to Rs. 62.44 crores for FY 2022-23. The Authority proposes to consider the average annual employee cost for FY 2022-23, determined based on the actual expense incurred, for estimating the Manpower cost for remaining four (4) tariff years, i.e., FY 2023-24 to FY 2026-27.

- TKIAL has submitted vide reply to query dated 10th January 2024 that the number of Select Employees after excluding AAI employees who have retired or are separated from AAI as on 31st December 2023 was 298. The Authority proposes to consider the same while determining the Deficit Employee Cost during the current control period.
- Further, the Authority proposes to revise the 10% Y-o-Y increase in Manpower costs claimed by TKIAL to 6% for the remaining four (4) tariff years of the Third Control Period as approved by the Authority for other similar airports.
- The details of Manpower expenses of AAI employees claimed by TKIAL and proposed by the Authority are summarized in the table below.

Table 163: Manpower expenses of AAI Employees claimed by TKIAL and proposed by the Authority for TCP

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Manpower Cost - AAI Employees	69.04	75.94	73.33	67.36	74.10	**359.77**
Growth rate	*10.00%*	*10.00%*	*10.00%*	*10.00%*	*10.00%*	
As per the Authority						
Manpower Cost - AAI Employees	62.44	66.19	59.31	49.67	52.65	**290.25**
Growth rate		*6.00%*	*6.00%*	*6.00%*	*6.00%*	

Note – The Manpower cost for the FY 2022-23 is based on actuals incurred by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.4.

10.2.17 **Manpower Expenses of TKIAL** – TKIAL has submitted the following increase in the total employee headcount and projected salary cost per employee per annum:

- Increase in Employee Headcount – TKIAL has projected an increase in Total Employee Headcount from 150 at the end of FY 2022-23 to 400 at the end of the Third Control period. The table below depicts the department wise employee head count, and the justification provided by TKIAL for the projected increase in head count during TCP.

Table 164: Department-wise Head Count of Employees as per TKIAL's MYTP submission for the Third Control Period

S. No.	Department	2023	2024	2025	2026	2027	Justification
1	Chief Airport Officer (CAO) Office	2	3	3	4	4	As per the Concession Agreement, Clause 6.5.3. AAI employees with designation over DGM and above have been transferred out by AAI and they are not associated with the Airport after 3 months from COD. Accordingly, Airport Director and all HODs have been transferred out and are not working at TRV Airport CAO (Chief Airport Officer) is responsible for overall operations and management of the Airport.

S. No.	Department	2023	2024	2025	2026	2027	Justification
							The department is akin to the erstwhile Office of the Airport Director. He is supported by 2 staff for analysis, reviews, KPI management, regular review, action taken follow-ups, stakeholder management, etc. 1 Resource is anticipated to be added as Personal Assistant to take care of the Office functioning of CAO
2	Chief Operating Officer office	1	1	2	3	3	The Chief Operating Officer is in charge of Airside and Terminal Operations and is responsible for ensuring efficient & effective operations and smooth passenger and user experience. He is supported by 2 associates in monitoring and managing the operations.
3	Regulatory	1	1	1	1	1	1 person planned for co-ordination related to AERA and regulatory matters
4	Airline Marketing		1	1	2	2	2 persons planned for dealing with Airlines including management of slots to increase ATM
5	Environment & Sustainability	1	2	2	2	2	As per Clause 18.1.1 (o) of CA, TKIAL is expected to protect and conserve the environment. Also, there is a requirement to get the Environment Audit done as per Clause 18.13. Accordingly, the manpower requirement has been considered.
6	Air Cargo	1	3	3	4	4	TKIAL is handling its own cargo facility as the AAICLAS facility has been carved out. Accordingly, inhouse manpower for monitoring of operations is considered.
7	Airside Management	26	40	42	44	44	TKIAL is responsible for maintaining and operating Airside including Runway, Taxiways, Approach Areas, Apron Management Service, Airside safety, aerodrome safeguarding and aeronautical information services. During the period AAI operated the airport, additional resources were utilized from other departments. The composition is as below: a. Head Aero Operations - (1 Headcount) Lead the Airside Operations, Apron control, AOCC and ARFF for TIA. b. AOCC (1 Lead and 12 Associates) - Responsible for allocation of resources such as parking bay or aerobridge, check-in counter and baggage belts, and also control the Flight Information Display System (FIDS) for the passengers. c. Baggage Make up Area (BMA) / BHS / BBA Operations - 1 lead supported by 3 Shift Managers - Responsible for ensuring availability of systems round the clock. d. In charge Airside Operations supported by 4 Duty managers and 12 Airside Executives - Round-the-clock operations. Inspects and patrols all airport facilities, grounds, and properties to ensure regulatory compliance. Prepares detailed reports of

S. No.	Department	2023	2024	2025	2026	2027	Justification
							daily operations, unusual incidents/accidents, hazardous conditions, and inspections. e. Aerodrome Licensing and DGCA Compliance - 1 lead with 2 associates required for handling and responding to DGCA queries. Documentation and coordination for meetings with respect to observations and their compliance. Continuous monitoring and follow-up of Civil Aviation Requirement (CAR). Handling DGCA inspection and License renewal processes f. ADP/AVP Management - 1 lead supported by 2 associates - Responsible for vehicle movements at the airside and authorizing driving permits for airside vehicle movement. g. Wildlife & Hazard Mgmt. - 1 lead supported by 2 associates - Responsible for monitoring and recording wildlife activities at the airport and mitigation plan
8	Aviation Safety	1	5	5	5	5	Aviation Safety includes developing and reviewing safety program for Users, including response to hijacking of aircraft, correction of safety violations and deficiencies and all other actions necessary to provide a safe environment in accordance with Concession Agreement. Also, as per Concession Agreement Clause 18.15.4, "The Concessionaire shall establish an Airport Safety Management Unit (“ASMU”) to be functional from COD and designate one of its officers to be in-charge of the ASMU. Such an officer shall have specialist knowledge and training in Airport system safety by having attended a course conducted by a reputed organization on the subject." Composition includes 1 Aviation Safety Head, supported by 1 resource and 3 manpower for shift duties
9	Occupational Safety (OHS)	1	2	3	4	4	Composition includes 1 OHS Head, supported by 3 manpower for shift duties
10	Aircraft Rescue and Fire Fighting (ARFF)	5	95	105	116	116	TKIAL has carried out an internal assessment on ARFF Task Resource Analysis and as per the assessment done, there is a requirement for 116 employees in ARFF for category 9. Based on the same, AO has projected total manpower requirement per shift as 29. This resulted in a total manpower requirement of 116 for 4 shifts. AAI had 94 "Select Employees” at TRV but TKIAL is expected to deploy additional manpower to fulfill the desired requirement.
11	Screeners (Including Shift-In-Charge & Manager)	54	54	54	73	73	TKIAL has inline baggage handling systems which requires specialized Screening manpower. Previously, AAI used to do it through an outsourced agency. However, TKIAL has decided to insource the function with its own manpower.
12	Terminal and Operation	14	23	33	33	33	TKIAL is expected to maintain and improve the quality of service to passengers. In that connection,

S. No.	Department	2023	2024	2025	2026	2027	Justification
							TKIAL will deploy various positions of Terminal Managers, Duty Managers, Shift In charge, Protocol services. Two terminals T-I and T-II will have addition of various Passenger Processing Systems and also there will be addition in terminal area. The composition is as below: a. Head Terminal Operations - (1 Headcount) Lead Reports to Chief Airport Officer and is responsible for Terminal (Domestic & International), Passenger Service, Facilities and Horticulture Management. b. Terminal Operations (1 Head, 3 Shift Managers and 12 Associates) - Responsible for the Passenger Experience at T-I and T-II. Works in coordination with CISF/Airlines and ensures that the passenger flow is seamless in Terminals. c. Protocol Services & Guest Relations (1 Head, 3 Shift Managers and 6 Associates) - Responsible to facilitate the movement of VIPs with smooth Check-in, VIP Lounge services, Security Check and Boarding after proper coordination with airlines, CISF - Terminal-I & Terminal II. d. Facilities Management - (1 Head supported by 2 Associates) - Handles the Facilities and Upkeep team at the airport to maintain the TRV airport facility (Terminal-I, II and Land Side) at the highest standards. The role will ensure high standards of cleanliness. e. GA Terminal Manager - (1 Head and 2 Associates) - to manage the terminal operations at GA terminal once commissioned
13	Horticulture	1	2	3	4	4	As part of environmental sustainability measures to develop TIA as a green airport, statutory requirements of tree transplantation/plantation and to create natural ambience befitting a landmark international airport, the manpower requirement has been considered.
14	Quality	1	3	4	5	5	Under Clause 23.1 of the concession Agreement, TKIAL is obligated to monitor and measure quality of service on the parameters prescribed in the Concession Agreement. Further, as per the Concession Agreement, TRV is expected to maintain relevant ISO certification and other quality certifications for all the facilities controlled and managed by TKIAL. Composition includes 1 Quality Expert and 2 Project Manager for Schedule H and ASQ, 1 Resource for Implementation of ABEM and 1 Complaint Management and Redressal
15	Engineering & Maintenance	6	16	30	34	34	Currently, AAI has approx. 70 Engineering & Maintenance employees. TKIAL is expected to outsource some of the non-core activities. Second there will be new facilities added and increase in Terminal Area, Increase in

S. No.	Department	2023	2024	2025	2026	2027	Justification
							Airside Facilities, increase in landside facilities, Utilities etc., there will be requirement of more manpower in Engineering and Maintenance department to cater to these increased facilities. Considering all the above factor, TKIAL is expected to consolidate the function and will have only 34 people on-roll which will be a mix of Civil, Technical, Mechanical, Electrical including shift engineers and leads in respective disciplines and Maintenance Planning & Scheduling team.
16	Land department			1	1	1	1 resource planed in later half of TCP to liaise with various authorities (AAI, Local authorities, State Govt Departments) for the purpose of acquisition of land and related matters.
17	Fuel Farm (Location in Charge) and shift managers		1	3	3	3	TKIAL has planned to acquire the existing fuel facilities from OMCs and accordingly, inhouse manpower for monitoring of operations is considered.
18	Techno Commercial (Procurement department)	3	6	6	6	6	AAI does not have any local purchase department at site. All the procurement at AAI is done centrally through tendering process. Techno commercial function is responsible for procurement of various requirement of user department, management of contract, RFP issue, onboarding of vendor, etc. Composition includes 1 HoD, 4 Buyers (1 each for Operations, Projects, Services and Operations Capex) + 1 resource for Managing Stores operations while the Stores operations may run on SLA basis.
19	Corporate communication	2	3	3	3	3	Corporate Communications and Managing social media have been a critical function. The Head will be supported by 2 resource to support through Print, Digital and External Stake Holder Management.
20	Corporate Affairs	1	1	2	2	2	Position required to interact with various state government, local municipalities, utility boards, local police etc. on a day-to-day basis. The Lead is supported by a relevant resource.
21	Security	9	12	13	14	14	AAI has been running Security only as Pass Section. However, there are various activities which need to be performed by TKIAL like CISF Documentation, Airport Security Program, Kerbside Management, Traffic Management, Airport Operator Security Control Room, Security System Maintenance, Encroachment outside and perimeter area, Intelligence and Vigilance Gathering, Avsec Training and Compliances, Landside Operations, BCAS Compliance requirements. TKIAL has planned for on-roll 14 employees with following composition: 1 CSO, 2 Pass Section, 2 Avsec Audit and Compliances, 4 Loss Prevention and Automation, 4

S. No.	Department	2023	2024	2025	2026	2027	Justification
							landside operations, 1 Security Risk Assessment and Process compliance.
22	Legal	1	2	3	3	3	Composition includes 1 HoD and 2 Team Members to monitor and manage various contractual compliances including compliance with Concession Agreement
23	Information Technology	3	4	5	7	7	IT is a backbone of Aviation, and all the critical systems need to be running with zero downtime. Critical systems include Airport Operational Data Base (AODB), FIDS, PDAs, SAP, Business Analytics, Integration with ATC, VGDS, Radio Sets, Desktops, Laptops, Billing Software, Document Management System, Access Control System etc. Currently, AAI has 15 employees in the Information technology team to support the IT functioning of the Airport. We have rationalized the in-house resource requirement and considered 7 in-house employees as few of the activities will be outsourced. Composition includes 1 HoD, 1 for IT Initiatives, 2 Cyber Security and 3 for Infra and Application team.
24	Human Resources and Admin	6	8	8	9	9	From the current deployment of 6 resources the following will be added. 1 Support to HR operations, 1 Resource for Admin function, 1 Resource to support ER/Compliance and 1 resource to support Employee welfare and engagement activities
25	Finance	4	6	7	8	8	Composition includes 1 HoD, and support staff for various functions under finance and accounts (which will include monitoring and control over various activities including Accounts Receivable, Accounts Payable, Monthly/Quarterly/Annual Account Closing, GST and TDS related reconciliations & compliance, MIS and Control)
26	Commercial	5	5	6	8	8	These resources are planned for various co-ordination & other activities relating to management and monitoring over various concessionaires including the master concessionaire
27	Digital	1	1	2	2	2	2 resources planned for various digital initiatives to enhance passenger experience and provide seamless integration of various touchpoints including digital initiatives, process automation, digital transformation, passenger journey mapping etc. like Digi Yatra
	Total Manpower Requirement	**150**	**300**	**350**	**400**	**400**	

- The Authority notes that TKIAL has estimated significant increase in number of employees mainly towards functions relating to Airside management, Terminal and Operation, Engineering & Maintenance, Aircraft Rescue & Fire Fighting (ARFF), Security and Inline Baggage Screening System (ILBS) considering the projected growth in traffic, operationalization of the new Terminal-II in FY 2025-26 and that the deemed deputation period of the 'Select Employees' deputed by AAI expires in the FY 2024-25 with no Select Employee accepting the offer made by TKIAL.

- The Authority also notes that TKIAL considers 50% of the employees as being Executives and the remaining 50% as being non-Executive.
- In this background, the Authority has examined the Aeronautical Employee Head Count of TRV for the period from FY 2016-17 to FY 2019-20 (pre-COVID year) and notes that the 4-year average employee headcount was 334. The details of the same are given in table below:

Table 165: Aeronautical employee head count of TRV for the period from FY 2016-17 to FY 2019-20

Particulars	FY 17	FY 18	FY 19	FY 20	4-year Avg.
Aeronautical Employee Head Count	357	335	330	314	**334**

Note – Refer Table 10 of Study on Opex.

- The Authority also notes that TKIAL has projected an increase in employee count based on the estimated completion of upgradation & expansion of T-II in FY 2024-25 and operationalization from FY 2025-26.
- The Authority also examined the growth projected in Passenger traffic and ATM during the Third Control Period for TRV (refer Table 90) and notes that the traffic is expected to reach pre-COVID level during the FY 2023-24.
- However, the following factors are to be considered:

  i. The capitalization of the new terminal T-I is expected only in the next control period.
  ii. The full operationalization of the expanded terminal T-II in FY 2026-27
  iii. There are existing employees of AAI i.e., 'Select Employees' deputed to TRV and
  iv. The previous airport operator, namely, AAI had been maintaining the prescribed ASQ rating of TRV with the aforementioned employee headcount (refer Table 165).

  Based on the above, the Authority is of the view that despite the positive growth projected in Passenger traffic and ATM, the Aeronautical Employee Head Count projected by TKIAL (which is at 400 towards the end of the Third Control Period), is not justified and the same needs to be rationalized.

- Also, the Authority notes that TKIAL has submitted the actual employee count for FY 2022-23 as 108 employees. The Authority proposes to accept the same.
- TKIAL vide response to query dated 8th January 2024 had submitted the actual employee count as on 31st December 2023 as 139. This includes one (1) employee of the Air Cargo department which was excluded during EHCR computation. The Authority proposes to consider the same as the employee head count for FY 2023-24.
- The Authority has analysed the Employee Headcount projected vis-à-vis the functions of each department mentioned in Table 164 and proposes the following revisions in Aeronautical Employee Headcount projected by TKIAL for the Third Control Period:

  i. Security department – The Authority notes that TKIAL will be outsourcing certain activities pertaining to the Security department. Hence, the Authority proposes to consider only 50% of the Aeronautical Employee Headcount of the Security department, projected by TKIAL, for the last three tariff years of the Third Control Period.

ii. Airside Management – The Authority notes that the Headcount projected by TKIAL for all the tariff years is on the higher side considering that the requisite facility and manpower for ground handling (outsourced) and VDGS system is already in place. Further, the activity of bird chasing has been outsourced by TKIAL. However, considering the increase projected in the ATM traffic during post-pandemic recovery in the current Control Period, the Authority proposes to increase the number to thirty (30) employees, thirty-five (35) employees and forty (40) employees respectively in the last three tariff years as against 42, 44 and 44 employees respectively estimated by TKIAL.

iii. Terminal Operations department – The Authority observes that the number of Employee Headcount projected by TKIAL for this department is on the higher side considering that there are existing employees of AAI (i.e., 'Select Employees' deputed to TRV) at the Airport during the deemed deputation period and hence, the Authority proposes to consider 75% of the Aeronautical Employee Headcount of Terminal Operations department, projected by TKIAL, for the third tariff year of the Third Control Period. For the remaining two tariff years of TCP, the Authority proposes to consider the number of employees as submitted by TKIAL as the Deemed Deputation Period will end in FY 2024-25.

iv. Engineering & Maintenance department – The Authority notes that there are existing employees of AAI (i.e., 'Select Employees' deputed to TRV) at the Airport during the deemed deputation period similar to Terminal Operations department and hence the Authority proposes to consider 75% of the Aeronautical Employee Headcount of Engineering & Maintenance department, projected by TKIAL, for the third tariff year of the Third Control Period. For the remaining two tariff years of TCP, the Authority proposes to consider the number of employees as submitted by TKIAL as the Deemed Deputation Period will end in FY 2024-25.

v. Inline Baggage Screening system (ILBS) – The Authority notes that TKIAL has proposed deploying 54 employees in FY 2024-25 and 73 employees each for FY 2025-26 and FY 2026-27 in this department. The Authority proposes to rationalize the headcount such that the number of employees increases at the same rate as the growth in traffic during the three tariff years.

vi. Air Cargo department – The Authority notes that TKIAL has computed cargo operation expenses including cost of manpower. At the same time, TKIAL has computed personal cost by including the cargo employees. On enquiry, TKIAL, vide replies to query dated 10th November 2023, has informed that both these costs relate to the same set of employees. Therefore, the Authority proposes to not consider the employees related to Air Cargo while determining the manpower and proposes to consider these employees cost in the computation of cargo operating expenses.

- Based on all the above factors, the Aeronautical Employee Headcount proposed by the Airport Operator and considered by the Authority and the revised Employee Headcount Ratio derived for the Third Control Period is shown in the table below.

Table 166: Revised Aeronautical Employee Head Count of TKIAL and the EHCR proposed by the Authority for the Third Control Period

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Allocation
As per TKIAL						
Total employee head count	150	300	350	400	400	
As per the Authority						
Chief Airport Office (CAO office)	2	2	3	4	4	Aeronautical

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Allocation
Chief Operating Officer office	-	-	2	3	3	Common
Regulatory	-	-	1	1	1	Aeronautical
Airline Marketing	-	-	1	2	2	Aeronautical
Environment & Sustainability	-	1	2	2	2	Common
Air Cargo	-	-	-	-	-	Aeronautical
Airside Management	22	20	30	35	40	Aeronautical
Aviation Safety	-	-	5	5	5	Aeronautical
Occupational Safety (OHS)	1	-	3	4	4	Aeronautical
Aircraft Rescue and Fire Fighting (ARFF)	2	2	105	116	116	Aeronautical
Screeners (Including Shift-In-Charge & Manager)	39	43	50	55	60	Aeronautical
Terminal and Operation	8	21	25	33	33	Aeronautical
Horticulture	1	2	3	4	4	Common
Quality	1	1	4	5	5	Aeronautical
Engineering & Maintenance	4	15	23	34	34	Aeronautical
Land department	-	-	1	1	1	Non-Aeronautical
Fuel Farm (Location in Charge) and shift managers	-	-	3	3	3	Aeronautical
Techno Commercial (Procurement department)	4	5	6	6	6	Common
Corporate communication	1	1	3	3	3	Common
Corporate Affairs	1	1	2	2	2	Common
Security	4	7	7	7	7	Common
Legal	-	1	3	3	3	Common
Information Technology	1	2	5	7	7	Common
Human Resources and Admin	5	5	8	9	9	Common
Finance	6	5	7	8	8	Common
Commercial	5	4	6	8	8	Non-Aeronautical
Digital	-	-	2	2	2	Aeronautical
Total employee head count	**107**	**138**	**310**	**362**	**372**	
Allocation						
Aeronautical	79	104	255	299	309	
Non-Aeronautical	5	4	7	9	9	
Common	23	30	48	54	54	
Total	**107**	**138**	**310**	**362**	**372**	
Common Employee Allocation						
Common Aeronautical employees	22	29	47	52	52	
Common Non-Aeronautical employees	1	1	1	2	2	
Total Common employees	**23**	**30**	**48**	**54**	**54**	
Head Count after allocation of Common employees						
Total Aeronautical employees	101	133	302	351	361	
Total Non-Aeronautical employees	6	5	8	11	11	
Total employees	**107**	**138**	**310**	**362**	**372**	
Aeronautical %	**94.39%**	**96.38%**	**97.42%**	**96.96%**	**97.04%**	
5-year avg. EHCR					**96.44%**	
Total Aeronautical employees (AAI + TKIAL)	369	401	352*	351	361	

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Allocation
Total Non-Aeronautical employees (AAI + TKIAL)	9	8	8*	11	11	
Total employees (AAI + TKIAL)	**378**	**409**	**360**	**362**	**372**	
Aeronautical % (AAI + TKIAL)	**97.62%**	**98.04%**	**97.78%**	**96.96%**	**97.04%**	
5-year avg. EHCR (AAI + TKIAL)					**97.49%**	

**The total Aeronautical and Non-Aeronautical employee head count for FY 2024-25 is computed as the average of the opening and closing employee head count*

- Salary cost projected per employee per annum – TKIAL has categorized the employees into Executive and Non-Executive in the ratio 50%:50%. The average employee cost for the above categories of employees was considered at Rs. 0.21 crores and Rs. 0.05 crores per annum respectively in FY 2022-23. The average employee costs for the remaining four (4) tariff years of the Third Control Period were projected to increase by 10% Y-o-Y.
- Subsequently, TKIAL vide email dated 4th August 2023, submitted the actual month-wise employee count and average salary per employee split between Executive and Non-Executive for FY 2022-23. Based on the analysis of the actuals for FY 2022-23, the Authority proposes to consider the average employee cost for Executive and Non-Executive employees as Rs. 0.20 crores and Rs. 0.05 crores respectively. The Authority also proposes to rationalize the growth rate by considering only 6% Y-o-Y increase for all four (4) tariff years, starting from FY 2023-24 in line with what has been considered for Manpower Expenses of AAI employees.
- Further, the Authority observes that TKIAL has submitted vide e-mail dated 24th July 2023, that they have incurred actual Total Manpower Expenses of TKIAL's employees amounting to Rs. 10.36 crores in FY 2022-23 as against the estimated amount of Rs. 14.16 crores. The Authority notes that TKIAL has considered the same as 100% Aeronautical which the authority proposes to re-allocate based on the prescribed allocation ratio of 96.44%:3.56% (refer para 10.2.6) which works out to Rs. 9.99 crores, which the Authority proposes considering for FY 2022-23. However, the Authority proposes to consider the average annual employee cost as given in the above paragraph along with a Y-o-Y growth of 6% from FY 2023-24 for the computing the Manpower expenses of TKIAL employees for the remaining four tariff years, i.e., FY 2023-24 to FY 2026-27.
- The details of Manpower expenses of TKIAL employees claimed by TKIAL and that proposed by the Authority are summarized in the table below.

Table 167: Manpower Cost of TKIAL Employees claimed by TKIAL and proposed by the Authority for TCP

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Aeronautical employee count	150	300	350	400	400	
TKIAL employee cost	14.16	32.18	51.12	64.89	76.13	**238.48**
Growth rate	*10.00%*	*10.00%*	*10.00%*	*10.00%*	*10.00%*	
As per the Authority						
Aeronautical employee count	101	133	302	351	361	
TKIAL employee cost	9.99	14.62	28.38	45.17	52.21	**150.37**
Growth rate		*6.00%*	*6.00%*	*6.00%*	*6.00%*	

Note – The Manpower cost for the FY 2022-23 is based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.6.

10.2.18 The employee cost proposed by the Authority for the Third Control Period based on revised Aeronautical Employee Headcount, cost and ratio as analysed above is shown below.

Table 168: Manpower expenses of Aeronautical Employees proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
AAI employee cost	69.04	75.94	73.33	67.36	74.10	**359.77**
TKIAL employee cost	14.16	32.18	51.12	64.89	76.13	**238.48**
Total employee cost	**83.20**	**108.11**	**124.45**	**132.25**	**150.23**	**598.24**
As per the Authority						
AAI employee cost (refer Table 163)	62.44	66.19	59.31	49.67	52.65	**290.25**
TKIAL employee cost (refer Table 167)	9.99	14.62	28.38	45.17	52.21	**150.37**
Total employee cost	**72.43**	**80.81**	**87.69**	**94.84**	**104.86**	**440.63**

Utility Expenses

The Authority examined the expenses towards Utilities and noted the following:

10.2.19 **Electricity expenses**: Airport Operator has projected the Electricity cost based on the following assumptions:

- Total units consumed for the FY 2022-23 were considered at 1.75 crores and is escalated in subsequent years for the TCP based on the increase in area of the terminal building.
- Net recoveries from the concessionaires were considered at approximately 6% for FY 2022-23 based on the actual consumption for the 9 months period from April 2022 to December 2022. It was considered at 7% in FY 2023-24 and FY 2024-25, and 8% in FY 2025-26 and FY 2026-27
- The per unit rate was considered at approximately Rs. 8.50 in FY 2022-23 based on the average rate for the 9 months period from April 2022 to December 2022. This rate was escalated Y-o-Y at 10%

10.2.20 The Authority compared the actual Electricity costs (net of recoveries) for FY 2022-23 of Rs. 12.74 crores with the projected cost of Rs. 13.98 crores. The Authority observes that the actuals expense incurred in FY 2022-23 appeared to be reasonable and proposes to allow Rs. 12.74 crores towards the Electricity expenses for FY 2022-23. The Authority further proposes to apply Y-o-Y increase towards inflation (refer Table 153) for the next four (4) tariff years on the derived expenses of FY 2022-23.

10.2.21 TKIAL has also proposed an additional one time increase of 6.24% in FY 2025-26 due to an increase in terminal area because of refurbishment of existing terminals. The Authority, based on its view detailed in para 10.2.14, proposes to consider an additional increase of 4.16% in the Electricity costs in FY 2026-27 in line with the revised Capitalization Schedule proposed by the Authority.

10.2.22 **Water and Fuel charges:** TKIAL has projected the Water and Fuel charges for FY 2022-23 as Rs. 0.30 crore and has proposed to consider a Y-o-Y increase of 28.5% in FY 2023-24, 15.5% in FY 2024-25, 9.5% in FY 2025-26 and 7.5% in FY 2026-27 based on projected passenger growth for the Third Control Period. The Authority examined the actual expenses of Rs. 0.47 crores incurred by TKIAL in FY 2022-23 towards Water and Fuel charges as against Rs. 0.30 crores projected in the MYTP and proposes to consider the actuals (i.e., Rs. 0.47 crores) for FY 2022-23. Also, the Authority proposes to apply Y-o-Y increase towards inflation for the remaining four (4) tariff years on such actual expenses, as per Table 153.

10.2.23 The Authority also proposes to allocate the water and fuel charges into Aeronautical and Non-Aeronautical based on the Gross Block ratio.

10.2.24 As mentioned in the above paragraph for the Electricity expenses, the Authority proposes to allow the one-time increase of 4.16% in the FY 2026-27 towards the increase in area of the Terminal Building in line with the revised Capitalization Schedule proposed by the Authority.

10.2.25 The details of Utility expenses claimed by TKIAL and proposed by the Authority are summarized in the table below.

Table 169: Utility expenses claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Electricity Cost	13.98	15.22	16.74	19.35	21.29	**86.58**
Water & Fuel Expense	0.30	0.39	0.45	0.49	0.52	**2.14**
Total Utility expenses	**14.28**	**15.60**	**17.18**	**19.84**	**21.81**	**88.72**
As per the Authority						
Electricity Cost	12.74	12.78	13.06	13.41	14.50	**66.50**
Water & Fuel Expense	0.46	0.46	0.48	0.50	0.54	**2.44**
Total Utility expenses	**13.20**	**13.24**	**13.54**	**13.91**	**15.04**	**68.94**

Note – The Utility cost for the FY 22-23 is based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.7

IT Expenses, Rates & Taxes and Security Expenses

10.2.26 TKIAL has claimed Y-o-Y increase for IT Expenses, Rates & Taxes and Security Expenses as per the table below.

Table 170: Y-o-Y increase in IT Expenses, Rates & Taxes and Security Expenses as submitted by TKIAL for the Third Control Period

Particulars	Base	FY 23	FY 24	FY 25	FY 26	FY 27
IT expenses	Employee Growth	-	100.00%	16.67%	14.29%	5.00%
Rates & taxes	Inflation Growth	-	5.00%	5.00%	5.00%	5.00%
Security expenses	Passenger Growth	-	28.49%	15.52%	9.45%	7.47%

10.2.27 TKIAL has also considered an additional increase of 6.24% during FY 2025-26, due to the proposed increase in the Terminal Building area, for the aforementioned expenses.

10.2.28 The Authority examined the actual expenses incurred by TKIAL during FY 2022-23 for the aforementioned expenses as tabulated below. The Authority proposes to consider the same for FY 2022-23.

Table 171: Comparison of Projection vs Actuals for FY 2022-23

(Rs. in crores)

Particulars	FY 23 projections in MYTP	FY 23 actuals as per TKIAL	FY 23 as per the Authority
IT expenses	6.00	4.50	4.50
Rates & taxes	1.00	0.55	0.55
Security expenses	6.77	8.03	8.03

10.2.29 In respect of the Y-o-Y growth rate claimed by TKIAL, the Authority proposes to revise the same as per inflation rates proposed in Table 153 across the remaining four (4) tariff years of the Third Control Period.

10.2.30 Further, the Authority proposes to allow one-time escalation towards increase in area of the Terminal Building for the aforementioned expenses as mentioned in para 10.2.14 above. Also, the authority proposes to allocate the expenses into Aeronautical and Non-Aeronautical based on the ratios as given in Table 158.

10.2.31 IT Expenses, Rates & Taxes and Security Expenses claimed by TKIAL and allowed by the Authority are summarized in the table below:

Table 172: IT expenses, Rates & taxes and Security expenses claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
IT expenses	6.00	12.00	14.00	16.87	17.72	**66.59**
Rates & taxes	1.00	1.05	1.10	1.23	1.29	**5.67**
Security expenses	6.77	8.70	10.06	11.63	12.50	**49.67**
As per the Authority						
IT expenses	4.39	4.40	4.57	4.74	5.12	**23.22**
Rates & taxes	0.50	0.50	0.52	0.54	0.59	**2.65**
Security expenses	7.84	7.86	8.16	8.47	9.14	**41.46**

Note – The expenses for the FY 2022-23 are based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.8 and 10.2.11.

Corporate Support Service expenses

10.2.32 TKIAL has claimed Corporate Support Service expenses of Rs. 15.00 crores towards support services received from the Holding Companies, namely AEL and AAHL, for the FY 2022-23 and projected 100% increase in FY 2023-24, 16.7% in FY 2024-25, 14.3% in FY 2025-26 and 5% in FY 2026-27 during the Third Control Period.

10.2.33 The Authority observes from the note provided by TKIAL, that it has engaged an independent consultant to conduct a Study on Corporate Cost allocation and based on the Study Report, they have submitted the following with respect to corporate cost allocation:

- AEL provides various strategic functions/activities like corporate finance, legal, central procurement, green initiative, ESG, Information technology, human resource management, etc., and also includes various leadership functions. AAHL through its corporate structure, provides expertise and specialist domain knowledge in Airports Operation, Airside Management, Master Planning, Designing, Airport Development, Airport Regulatory, Hospitality, Customer management, Cargo Development and management, Airline Marketing, Non-Aeronautical etc.
- AEL and AAHL incur costs at the corporate level to provide these services and support to various Group Companies (including Airports) and Airport companies. The major composition of these costs includes salaries and administrative costs. These costs (except shareholders services and non-Aeronautical services) are recovered by AEL and AAHL through a pre- determined, appropriate allocation method.
- Similar corporate cost allocation process is used by other private airport operators' holding entities, such as GMR Infrastructure Limited (GIL) and GMR Airports Limited (GAL), which provide corporate administration services to DIAL and GHIAL, and their costs are allocated based on suitable drivers. Similarly, AAI also allocates its Central Head Quarters (CHQ) / Regional Head Quarters (RHQ) costs to various airports based on appropriate cost drivers.

10.2.34 The Authority further examined the actual costs allocated to TRV for FY 2022-23 and observes that the same is Rs. 16.55 crores as compared to the projection of Rs. 15 crores claimed in TKIAL's MYTP submission. The detailed break-up of the actual cost along with the basis of allocation submitted by TKIAL for the FY 2022-23 is as follows:

Table 173: Details of Actual Corporate Allocation cost incurred with allocation basis submitted by TKIAL for FY 2022-23

(Rs. in crores)

Department	Allocation Key (Basis)	Admin Cost	Personnel cost	Total
AAHL				
Human Resources & Admin	Ratio of Number of Employees of a Special Purpose Vehicle (SPV) to Total Adani Group Employees	0.47	1.87	**2.34**
Finance	Ratio or Debt raised for a SPV to total Debt raised for Airport Group	0.09	0.34	**0.43**
Operations (Airline Marketing, Operation, Security, HSE, Regulatory)	Ratio of Per PAX Revenue of SPV to total Per PAX Revenue	1.05	4.18	**5.23**
Information Technology	Ratio of Number of IT users in a SPV to total IT users in all airports	0.12	0.46	**0.58**
Inhouse Legal Team	Ratio of Legal Budget of a SPV to Total Legal Budget of all airports	0.03	0.12	**0.15**
Cargo Development	Ratio of Per PAX Revenue of a SPV to total Per PAX Revenue of all airports	0.02	0.07	**0.09**
C. E.O Office	Ratio of Per PAX Revenue of SPV to total Per PAX Revenue	0.37	1.47	**1.84**
Total	**A**	**2.15**	**8.51**	**10.66**
AEL				
HR & Admin	Ratio of Number of Employees of a SPV to Total Adani Group Employees	0.77	1.57	**2.34**
Finance, Tax & Internal Audit	Ratio of Debt raised for a SPV to total Debt raised for Adani Group, Ratio of Turnover of a SPV to Total Group Turnover and Ratio of Full Time Equivalents (FTE) allocated to a SPV to total FTEs	0.19	0.39	**0.58**
IT	Ratio of Number of IT users in a SPV to total Group users	0.52	1.05	**1.57**
Legal	Ratio of Legal Budget of a SPV to Total Legal Budget of all airports	0.01	0.02	**0.03**
CMD Office & Support Staff	Ratio of a SPV Profit Before Tax (PBT) to Group PBT and Airport budgeted expenditure to Total budgeted expenditure	0.45	0.92	**1.37**
Procurement	Ratio of Turnover of a SPV to Total Group Turnover	-	-	**-**
Land & Estate	Ratio of a SPV PBT to Group PBT	-	-	**-**
Total	**B**	**1.94**	**3.95**	**5.89**
Grand Total	**A+B**	**4.09**	**12.46**	**16.55**

10.2.35 TKIAL has submitted that the activities of certain Functions such as Finance, HR & Admin and IT are performed both centrally at Corporate (AEL, AAHL) and at individual Airports. The same has been detailed as follows:

- **Activities performed at Corporate level:** These are strategic, decision-making activities that are carried out across the Group such as:
  - Designing policies and procedures, benchmarking and standardization of processes across the Group
  - Monitoring annual budgeting process
  - Implementation of ERP for the Group (particularly Finance and HR functions)
  - Reviewing performance of the Group and providing guidance to Group Companies
  - Maintaining Adani Airports Information Repository, standards in software development and networking.
  - Identifying new revenue generating IT services, technologies and solutions.
- **Activities performed at the Airport:** These are operational in nature which includes:
  - Recording of Financial data in ERP
  - Preparation of monthly MIS for presenting it to corporate team
  - Financial due diligence of various proposals.
  - Conducting interviews at site level for hiring of manpower and managing manpower at the site.
  - Executing Performance appraisal process and providing feedback to corporate team.
  - Executing day-to-day IT requirements at the Airport.
  - Maintaining airport related IT assets such as AODB, FIDS, software used in AOCC, etc.
  - Support HO/Corporate IT team in the areas of IT Strategy, delivery, and Governance.

10.2.36 The Authority notes that AEL on an overall basis, extends support and guidance to various Group Companies and AAHL provides expertise and specialist domain knowledge to the Airport Companies, which are essential for the sustainable operations of the business. The major composition of the costs of these services includes salaries and administrative costs that are recovered by AEL and AAHL through an appropriate allocation method. Further, this process is consistent with the approach followed by other PPP airports such as DIAL, GHIAL etc. for allocation of corporate costs to the Airports. Based on the above factors, the Authority considers the apportionment of costs of AEL and AAHL to TKIAL as reasonable.

10.2.37 The actual cost allocated to TKIAL for FY 2022-23 is Rs. 16.55 crores. The Authority notes that the actual cost submitted for FY 2022-23 was Rs. 16.53 crores and therefore proposes to consider same as compared to the projected cost of Rs. 15.00 crores. However, the Authority observes that the aforementioned projected cost includes the allocated costs of legal team of AEL and AAHL, which is in addition to the cost of employees of Legal department available at TRV, already considered under the manpower expenses of TKIAL (refer Table 166 above) and is not justified. Hence, the Authority proposes to exclude Rs. 0.18 crores from the Corporate Allocation cost submitted by TKIAL and allow the remaining amount of Rs. 16.35 crores for FY 2022-23.

10.2.38 Further the Authority observes that Salary cost constitutes the major portion of the Corporate Cost and hence, the Authority proposes to rationalize the increase claimed by TKIAL to 6% Y-o-Y across all the remaining four (4) tariff years in the Third Control Period, which is in line with the increase proposed for Manpower expenses in Table 167.

10.2.39 The details of Corporate Allocation Expense claimed by TKIAL and allowed by the Authority are summarized in the table below:

Table 174: Corporate Allocation expenses claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Corporate Allocation	15.00	30.00	35.00	40.00	42.00	**162.00**
As per the Authority						
Corporate Allocations	15.77	16.72	17.72	18.78	19.91	**88.91**

Note – The Corporate Allocation expenses for the FY 2022-23 is based on actuals reported by TKIAL after deducting the costs incurred by the inhouse legal department and applying the prescribed allocation ratio proposed by the Authority in para 10.2.10.

Administrative Expenses – Collection Charges on UDF

10.2.40 The Authority notes that while TKIAL has projected the Administrative Expenses – Collection Charges on UDF for FY 2022-23 as Rs. 0.86 crores, the actual expense incurred is only Rs. 0.63 crores. Hence, the Authority proposes to consider the actuals for FY 2022-23.

10.2.41 Further the Authority proposes to consider the increase in Collection charges for UDF in line with the growth in Passenger traffic proposed for the Third Control Period for TKIAL, as per Table 90.

10.2.42 The details of Administrative Expenses – Collection charges on UDF claimed by TKIAL and proposed by the Authority have been summarized in the table below:

Table 175: Administrative expenses (collection charges on UDF) claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Administrative Expenses - Collection Charges on UDF	0.86	1.11	1.28	1.40	1.51	**6.17**
As per the Authority						
Administrative Expenses - Collection Charges on UDF	0.63	0.78	0.86	0.99	1.06	**4.33**

Note – The Administrative expenses (collection charges on UDF) for the FY 2022-23 is based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.9.

Administrative Expenses - Others

10.2.43 TKIAL has projected Rs. 15 crores for FY 2022-23 with an increase of 10% Y-o-Y (includes increase due to inflation at 5% and 5% for any contingency for change in scope, overtime and escalation) for Administrative and General Expenses towards consultancy expenses, advertisement, travel, audit, printing & stationery, office expenses, communication costs and business promotion. The Authority notes that TKIAL has actually incurred Administrative and general expenses of Rs. 14.26 crores for FY 2022-23 as compared to the projection of Rs. 15 crores in the MYTP. Accordingly, the Authority proposes to consider the actuals for FY 2022-23.

10.2.44 The Authority also notes that TKIAL has considered an increase of Rs. 21 crores in FY 2023-24 from the previous year's expense. On enquiry, TKIAL informed vide reply to query dated 3rd September 2023, that *"The increase in admin expenses is due to expected increase in professional fees for various activities for improvement in passenger experience and operations."* The Authority proposes not to consider this increase in expense as no detailed rationale has been provided by the Airport Operator.

10.2.45 The Authority proposes to consider inflationary effect as per Table 153, on such actual administrative expenses across the remaining four tariff years in the Third Control Period, in line with the other similar airports.

10.2.46 The details of Administrative Expenses claimed by TKIAL and proposed by the Authority have been summarized in the table below:

Table 176: Administrative expenses claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Administrative Expenses – Others	15.00	36.00	39.60	43.56	47.92	**182.08**
As per the Authority						
Administrative Expenses – Others	13.92	13.96	14.49	15.04	15.61	**73.02**

Note – The Administrative expenses for the FY 2022-23 is based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.9.

Insurance

10.2.47 The Authority has examined the expense claimed by TKIAL towards Insurance and notes the following:

i. **Insurance on Opening Net block of assets** – TKIAL has claimed Rs. 2.00 crores in FY 2022-23 and an increase of 10% Y-o-Y (including 5% towards inflation) for Insurance expenses on the Opening Net block of Assets. The Authority notes that the actual cost incurred in FY 2022-23 is Rs. 1.82 crores for FY 2022-23 and proposes to consider the same for FY 2022-23. The Authority also proposes to consider Y-o-Y escalation based on the inflation rate proposed in Table 153. Further, the Authority has derived the Aeronautical expenses by applying the Gross Block Ratio as per Table 158.

ii. **Insurance on New Capital Expenditure** – TKIAL has also claimed Insurance expense at the rate of 0.10% of the new additions to the gross block assets for each tariff year. The Authority reviewed the same and proposes to consider the expense at the same rate of 0.10% on the revised gross block of capitalized Aeronautical Assets that are proposed as part of RAB (refer Table 147).

10.2.48 The details of insurance expenses claimed by TKIAL and proposed by the Authority are shown below:

Table 177: Insurance expenses claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Insurance on Opening Block of Assets	2.00	2.20	2.42	2.66	2.93	**12.21**
Insurance on Assets added during the Second Control Period	0.06	0.37	1.48	2.48	4.01	**8.40**
Total Insurance expense	**2.06**	**2.57**	**3.90**	**5.14**	**6.94**	**20.61**
As per the Authority						
Insurance on Opening Block of Assets	1.78	1.78	1.85	1.92	1.99	**9.32**
Insurance on Assets added during the Second Control Period	-	0.06	0.24	1.12	1.31	**2.74**
Total Insurance expenses	**1.78**	**1.84**	**2.09**	**3.04**	**3.30**	**12.06**

Note – The Insurance expenses for the FY 2022-23 is based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.8.

R&M Expenses

10.2.49 The Authority examined the expenses towards Repairs and Maintenance and noted that the same has been categorized as towards Civil, Electrical, Plant and machinery, Electronics and Others.

i. **Repairs and Maintenance on Opening Net block of Assets** – TKIAL has claimed Rs. 28.85 crores in FY 2022-23 towards Repairs and Maintenance for Opening gross block of Assets and an increase of 10% Y-o-Y (including expected increase in inflation by 5% and another 5% allowance provided for any contingency for change in scope, overtime, escalation etc.).

ii. **Repairs and Maintenance on New Capital Expenditure** – TKIAL has also claimed Repairs and Maintenance expense at the rate of 3% of the opening gross block of new assets for each tariff year.

10.2.50 The Authority as part of its review notes that the actual R&M expense incurred by TKIAL for FY 2022-23 is Rs. 25.26 crores (lower than TKIAL's estimate of Rs. 28.85 crores in the MYTP) and proposes to consider the same.

10.2.51 The Authority is of the view that TRV is a brownfield airport, wherein Capital Additions have been newly proposed for the Third Control Period. The newly constructed/installed assets need lesser maintenance than the already commissioned ones in use. The Authority, therefore, proposes to consider actuals for FY 2022-23 and restrict the total repairs and maintenance expenses claimed by TKIAL to 6% of the Opening Net block of Aeronautical Assets for the respective FYs.

10.2.52 The amount claimed by TKIAL, and the estimate proposed by the Authority is shown in the table below:

Table 178: Repairs and Maintenance on Opening Net block of Assets claimed by TKIAL and Proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
R&M on Opening Block of Assets	28.85	31.73	34.91	38.40	42.24	**176.13**
R&M on Assets added during the TCP	-	2.43	11.62	44.92	74.95	**133.92**
Total R&M expenses	**28.85**	**34.17**	**46.53**	**83.32**	**117.18**	**310.04**
As per the Authority						
Opening RAB during the TCP (A)	457.94	458.55	489.59	627.23	1,443.02	
6% of Opening RAB (B)	27.48	27.51	29.38	37.63	86.58	**208.58**
R&M as submitted by TKIAL (C)	24.64	34.17	46.53	83.32	117.18	**305.84**
Revised R&M expenses (MIN[B,C])	**24.64**	**27.51**	**29.38**	**37.63**	**86.58**	**205.75**

Note – The expenses for the FY 2022-23 are based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.11.

Other Operating Expenses

10.2.53 TKIAL has claimed Other Operating Expenses of Rs. 19 crores in FY 2022-23 towards housekeeping and upkeep expenses (includes cleaning & housekeeping Services, pest control services, cleaning of public toilet, providing biomedical waste management services, garbage collection services etc.), horticulture expenses and outsourced manpower/hire charges (includes Operations of Bird Scarers for Wildlife Hazard Management (WHM), customer service executive, guest relation executive etc. and a trolley management O&M contract) and an increase of 50.00% in FY 2023-24, 15.52% in FY 2024-25, 9.45% in FY 2025-26 and 7.47% in FY 2026-27. Further, TKIAL has sought a one-time increase of 6.24% in FY 2025-26 due to refurbishment of existing terminal.

10.2.54 The Authority notes that TKIAL has incurred actual expenses of Rs. 17.96 crores for FY 2022-23 as against the projected amount of Rs. 19.00 crores in the MYTP. It is observed that the majority of the actual expenses have been incurred towards MESS, ESS, maintenance of Terminal area and horticulture expenses for which TKIAL has already issued the LOA / Contract to the third-party vendor. Considering the same, the Authority proposes to consider the actual expenses of Rs. 17.96 crores for FY 2022-23 and the base cost of the LOA/Contracts issued of Rs. 19.99 crores for FY 2023-24. However, in respect of Y-o-Y growth rate claimed, the Authority notes that TKIAL has sought increase in line with the increase in passengers. The Authority notes that these costs do not increase in line with growth in traffic. Hence, the Authority proposes to consider increase for future years in line with the rate of inflation proposed in Table 153 together with the increase towards Terminal Area increase as proposed in para 10.2.14.

10.2.55 Based on the above, the Authority's proposal for Other Operating Expenses as against TKIAL's submission is shown below:

Table 179: Other Operating Expense claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Other operating expenses	19.00	28.50	32.92	38.09	40.94	**159.45**
As per the Authority						
Other operating expenses	16.16	17.99	18.67	19.38	20.92	**93.12**

Note – The Other Operating Expenses for the FY 2022-23 is based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.11.

<u>Independent Engineer Cost</u>

10.2.56 TKIAL has claimed Independent Engineer Cost of Rs. 3.78 crores for FY 2022-23 and claimed an increase of 5% Y-o-Y from FY 2025-26. As per the information provided, AAI appointed M/s Rites Limited as an Independent Engineer for 3 years with a total cost of Rs. 11.86 crores (Rs. 3.78 crores annually). The extract of the relevant clauses is as below:

Clause 24.1.2 states

"The appointment of the Independent Engineer shall be made within 90 (ninety) days of the date of execution of this Agreement, and such appointment shall be valid for a period of 3 (three) years. On the expiry or termination of the said appointment, the Authority shall appoint an Independent Engineer for a further term of 3 (three) years in accordance with the provisions of Schedule K, and such procedure shall be repeated after expiry of each appointment."

Clause 24.3.1 states

"The remuneration, cost and expenses of the Independent Engineer shall be paid by the Authority, and all such remuneration, cost and expenses shall be reimbursed by the Concessionaire to the Authority within 15 (fifteen) days of receiving a statement of expenditure from the Authority. Any amounts paid to the Independent Engineer shall be considered for a pass-through for the determination of the Aeronautical Charges by the Regulator."

10.2.57 The Authority notes that AAI had appointed RITES Limited as the Independent Engineer with effect from 25th October 2021 with the responsibility of reviewing the projects being carried out by TKIAL on site and submitting necessary reports to TKIAL.

10.2.58 The Authority also notes that as per Clause 24 and Schedule K of the Concession Agreement, AAI is required to appoint the Independent Engineer initially for a period of 3 years and thereafter for every 3 years. AAI has executed the contract with the Independent Engineer at a fee of Rs. 11.35 crores. TKIAL has projected the Independent Engineer Cost based on the same together with considering an inflation of 5% for the last two tariff years for the Third Control Period.

10.2.59 The Authority also examined the actual expense of Rs. 3.41 crores for FY 2022-23 and proposes to consider the same for FY 2022-23. For the remaining four (4) tariff years the Authority proposes to consider the cost as per TKIAL submission. However, the Authority proposes not to allow inflation of 5% as submitted by TKIAL.

Amortization of runway recarpeting expenses

10.2.60 TKIAL has projected an amortization of Rs. 20 crores towards expenditure on Runway Recarpeting works over a period of five (5) FYs starting from FY 2024-25. The Authority notes that TKIAL has also claimed a return on the average unamortized portion of the Runway Recarpeting expense each year.

10.2.61 On cost estimate for recarpeting, TKIAL has submitted that

"*The previous runway recarpeting was carried out by AAI in FY16-17. The next runway recarpeting is now proposed in FY24-25. Only resurfacing is proposed hence there will be no change in PCN value.*

The previous runway recarpeting was done in FY2016-17 by AAI for approx. cost of INR 56 crores. After applying necessary inflation factor from FY17 to FY23 (considered 60% increase though Bitumen index has changed by over 80% during the period i.e. the cost will be close to Rs. 90 Crs as of date."

10.2.62 The Authority notes that the TKIAL has submitted a base cost of Rs. 78.43 crores as the cost of runway recarpeting in the submission on the proposed capital addition during the Third Control Period. The Authority proposes to consider this base cost along with indexation amounting to Rs. 81.65 crores as the cost of runway recarpeting and proposes to amortize the same over five (5) years as detailed in Authority's Order No. 35/2017-18 dated 12th January 2018. Accordingly, the Authority has considered the cost for the years FY 2024-25, FY 2025-26 and FY 2026-27.

10.2.63 The Authority also notes that the cost incurred on runway recarpeting is proposed to be amortized over five (5) years as per Order No. 35/2017-18. Accordingly, a return equal to FRoR is proposed to be provided on the unamortized portion of runway recarpeting expenses. Computation for the same is as follows:

Table 180: Return on unamortized portion of Runway recarpeting proposed by the Authority

(Rs. in crores)

Particulars	Ref	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Opening Balance	A	-	-	-	65.32	48.99	
Runway recarpeting expense incurred during the year	B	-	-	81.65	-	-	**81.65**
Runway recarpeting amortized during the year	C	-	-	16.33	16.33	16.33	**48.99**
Closing Balance	**D = A + B - C**	**-**	**-**	**65.32**	**48.99**	**32.66**	
FRoR (refer Table 151)	F	12.21%	12.21%	12.21%	12.21%	12.21%	
Return on unamortized portion of recarpeting expenses	**G = A * F**	**-**	**-**	**-**	**7.98**	**5.98**	**13.96**

10.2.64 Based on the above, the Authority proposes to consider the following with respect to runway recarpeting for the Third Control Period

Table 181: Runway recarpeting expenses claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Runway Re-carpeting costs	-	-	20.00	20.00	20.00	**60.00**
Return on unamortized portion of recarpeting expenses	-	-	5.90	10.33	7.38	**23.61**
Total runway recarpeting expenses	**-**	**-**	**25.90**	**30.33**	**27.38**	**83.61**
As per the Authority						
Runway Re-carpeting costs	-	-	16.33	16.33	16.33	**48.99**
Return on unamortized portion of recarpeting expenses	-	-	**-**	**7.98**	**5.98**	**13.96**
Total runway recarpeting expenses	**-**	**-**	**16.33**	**24.31**	**22.31**	**62.95**

<u>**Fuel Operating Expenses**</u>

10.2.65 Clause 19.3 of the Concession Agreement stipulates TKIAL's obligations towards providing aircraft fueling services (refer Annexure 4 in Chapter 17 of this Consultation Paper)

10.2.66 TKIAL has submitted total Fuel O&M expenses of Rs. 50.52 crores based on the following assumptions regarding Fuel facility Operations:

- TKIAL has projected that the Fuel farm facility operations will commence from July 2023 onwards (i.e., 8-month period in FY 2023-24) and continue for the remaining three (3) tariff years of the Third Control Period.
- TKIAL has estimated the Fuel Throughput volume at the rate of approximately 5 KL per ATM for the Total ATM traffic projected in each tariff year.
- Further, TKIAL has submitted that they will outsource the Fuel facility operations to a third-party vendor, who will manage the facility on a 'minimum guarantee' amount up to specified quantity of 1,00,000 KL (i.e., fixed amount per year) and beyond the specified quantity of 1,00,000KL, on the basis of agreed Rate / KL (i.e., variable rate). The rates detailed in the Letter of Award issued by TKIAL to the vendor are as follows:

Table 182: Fixed and Variable Fuel O&M rates claimed by TKIAL for the Third Control Period

Particulars	UoM	Quantity	Rate (Rs.)	Amount (Rs. in crores)
Fixed: Up to 1,00,000 KL	Month	12	76,86,508	9.22
Variable: Beyond 1,00,000 KL	per KL	-	275	-

- Additionally, TKIAL has projected an increase of 5% towards inflation Y-o-Y on both the fixed amount and variable rate / KL payable to the Vendor.
- Apart from the above, TKIAL has projected the Rental cost of bowsers amounting to Rs. 1.20 crores in FY 2023-24 and Rs. 1.26 crores in FY 2024-25. The Authority notes that TKIAL has, in the MYTP, submitted that since the delivery of the new refuelers/bowsers have a lead time of 9-12 months, TKIAL will hire refuelers/bowsers on rental basis for the first year of operations. The rental cost has been estimated for six months each in the Second and Third years of Operations i.e., FY 2023-24 and FY 2024-25 after which TKIAL expects to have a sufficient number of its own refuellers to run the operations.

10.2.67 The Authority examined the above relating to Fuel Farm Operations and the Authority's views are as under:

- The Authority has examined the Fixed and Variable O&M rates in Ahmedabad and Lucknow airports. The Authority proposes to accept the average of the said rates for the two airports, i.e., Rs. 0.77 crores per month and Rs. 270 per KL, respectively for Fixed and Variable Fuel O&M expenses. TKIAL, vide reply to query dated 10th January 2024, has submitted that the IOCL & BPCL Asset procurement was under planning stage. Therefore, the Authority had in its examination of capital expenditure submitted by TKIAL, proposed to consider the capitalization of the same in FY 2024-25 (refer para 7.3.96). Accordingly, the Authority proposes to consider the estimated cost (both fixed and variable) proportionately for six months during FY 2024-25.
- The Authority notes that TKIAL has subsequently shared the actual fuel throughput per ATM for each month of FY 2022-23. Based on the same, the Authority has worked out the average fuel throughput per ATM as 5.83 and proposes to consider the same along with the ATM traffic as per Table 90 to arrive at the fuel throughput for the three tariff years starting from FY 2024-25.
- The Authority proposes to consider the inflation rate as detailed in Table 153 above, to consider the increase for both fixed and variable O&M expenses for the remaining years in the Control Period.
- The Authority has noted TKIAL's submission that the rental expense is based on the actual cost incurred at Ahmedabad and Lucknow Airport which works out to an average of Rs. 1.98 crores for 12 months. The Authority proposes to allow this rental cost proportionately for six months in FY 2024-25 and six months in FY 2025-26.

10.2.68 Based on all the above proposals, the total Fuel O&M expenses proposed by the Authority have been shown below:

Table 183: Fixed and Variable Fuel O&M expenses claimed by TKIAL vs proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars (Rs. in crores)	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
O&M Expenses	-	8.53	12.07	13.17	14.29	**48.06**
Bowser Rental	-	1.20	1.26	-	-	**2.46**
Total fuel expenses	-	**9.73**	**13.33**	**13.17**	**14.29**	**50.52**
As per the Authority						
O&M Expenses						
ATM Traffic (A)	24,594	31,708	36,504	39,823	42,685	**1,75,314**
Fuel throughput per ATM (KL/ATM) (B)	-	-	5.83	5.83	5.83	
Fuel Throughput (KL) (C = A * B)	-	-	2,12,935	2,32,295	2,48,990	**6,94,219**
Fixed Fuel Throughput (KL) (D)	-	-	1,00,000	1,00,000	1,00,000	**3,00,000**
Variable Fuel Throughput (KL) (E = C – D)	-	-	1,12,935	1,32,295	1,48,990	**3,94,219**
Factor for months in operation (F)	-	-	0.50	1.00	1.00	
Fixed O&M expense up to 1,00,000 KL (G)	**-**	**-**	**4.85**	**10.06**	**10.44**	**25.34**
Inflation %	-	-	-	3.80%	3.80%	
Variable Fee per KL (Rs.) (H)	-	-	270.00	280.26	290.91	
Inflation %	-	-	-	3.80%	3.80%	
Variable O&M expense exceeding 1,00,000 KL (I = H * E * F)	**-**	**-**	**1.52**	**3.71**	**4.33**	**9.57**
O&M Expenses (J = G + I)	**-**	**-**	**6.37**	**13.77**	**14.77**	**34.91**
Bowser Rental						
Bowser Rental for the year (K)	**-**	**-**	**0.99**	**0.99**	**-**	**1.98**

Particulars (Rs. in crores)	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Total fuel expenses (L = J + K)	**-**	**-**	**7.36**	**14.76**	**14.77**	**36.89**

Cargo Operating Expenses

10.2.69 Clause 19.4.1 of the Concession Agreement stipulates TKIAL's obligations towards upgrading, developing, operating and maintaining the Cargo facilities in accordance with the provisions of the Concession Agreement (refer Annexure 4 in Chapter 17 of this Consultation Paper).

10.2.70 TKIAL has projected total Cargo Operating expenses of Rs. 42.50 crores for the Third Control Period towards in-house salary cost, outsourced O&M expenses and customs cost recovery. As per MYTP submission, TKIAL started processing domestic cargo from August 2022 and proposed to start international cargo operation from 1st April 2023 from an interim cargo facility till completion of construction of the new International Cargo Complex in FY 2025-26. Further, Cargo expenses have been increased by 10% for the remaining three (3) tariff years of the Third Control Period commencing from FY 2024-25.

10.2.71 The Authority examined the submission of TKIAL and notes that the outsourced contract for handling the Cargo facility has been projected to commence from 1st April 2022. FY 2022-23 expenses were estimated at a fixed cost of Rs. 0.18 crores per month. For FY 2023-24, charges have been considered at the rate of Rs. 3,000 per MT of Volume and thereafter projected for the remaining tariff years with a Y-o-Y increase of 10%.

10.2.72 In this regard, the Authority verified the Cargo O&M Services Agreement entered into by TKIAL with the third-party vendor, for a period of one (1) year (extendable subject to mutual agreement on rates, terms and conditions) and also the actual fixed cost per month agreed upon by both the parties for the entire tenure of the Contract and notes that the actual rate for FY 2022-23 is Rs. 0.13 crores per month (as against Rs. 0.18 crores per month submitted in the MYTP). Accordingly, the same has been considered as a cost for FY 2022-23.

10.2.73 Further, the Authority notes that based on the above rate of Rs. 0.18 crores per month for FY 2022-23, TKIAL has claimed Rs. 1.44 crores of outsourced O&M expenses in their MYTP as against actual expenses of Rs. 0.86 crores incurred for FY 2022-23. Hence, the Authority proposes to consider the actual outsourced Cargo O&M expenses of Rs. 0.86 crores for FY 2022-23.

10.2.74 The Authority also notes that the above agreement was subsequently extended by 1 year effective from 1st April 2023 and the rate increased to Rs. 0.15 crores per month (an increase of 12.77% from the previous year's rate). The O&M expense for FY 2023-24 based on this rate amounts to Rs. 1.80 crores as against Rs. 1.95 crores claimed by TKIAL as outsourced O&M expenses in their MYTP submission. Therefore, the Authority proposes to consider the expense of Rs. 1.80 crores as per the revised agreement for FY 2023-24.

10.2.75 The Authority notes that TKIAL has considered approximately Rs. 3,000 per tonne as basis for determining the O&M cost for TRV. This rate was estimated based on the experience of Ahmedabad and Lucknow airports. The Authority has examined the actual per tonne fee in Ahmedabad and Lucknow airports and proposes to accept the average of the said fees for the two airports, i.e., Rs. 2,860 as the per tonne fee for FY 2022-23. The Authority also proposes to escalate this fee at inflationary growth rate (refer Table 153) as against the increase of 10% submitted by TKIAL for arriving at the O&M expenses for the remaining three (3) years of the current control period.

10.2.76 The Authority also notes that TKIAL has projected the cargo handling capacity by considering capitalization of the new International Cargo Complex in FY 2025-26. TKIAL has also submitted in the response to queries dated 27th July 2023, that it expects to have a market share of 70% after the start of operation in the new cargo facility for the last two tariff years of the Third Control Period. The cargo capacity proposed by TKIAL and volume of cargo to be processed by TKIAL as proposed by the Authority is as given below.

Table 184: Cargo capacity and cargo volume processed by TKIAL as proposed by the Authority for the Third Control Period

Particulars (in MT)	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Capacity proposed						
Domestic Facility	3,000	3,000	3,000	3,000	3,000	
International - Interim Facility	-	6,000	6,000	-	-	
International - New Facility	-	-	-	25,000	25,000	
Total	**3,000**	**9,000**	**9,000**	**28,000**	**28,000**	
Cargo volume to be processed by TKIAL (refer Table 90)						
Domestic	1,382	2,000	2,000	2,046	2,315	**9,743**
International	-	750	6,000	23,680	25,645	**56,074**
Total	**1,382**	**2,750**	**8,000**	**25,726**	**27,959**	**65,817**

10.2.77 The Authority proposes to consider the cargo volume processed by TKIAL as per the above table for the determination of O&M expenses.

<u>Inhouse salary and Custom Cost Recovery</u>

10.2.78 The Authority observes that TKIAL has projected salary costs for six (6) of their own employees comprising supervisory staff and duty managers at an average annual salary of Rs. 0.16 crores per employee which works out to a total in-house salary cost of approximately Rs. 1 crore per annum starting from FY 2023-24. Further, this cost has been projected to increase proportionately with the increase in cargo volume handled by TKIAL in addition to an increase of 10% Y-o-Y in each tariff year. The Authority notes that as of June 2023, there is only one (1) employee. Also, TKIAL has informed vide reply to query dated 10th November 2023, that they expect to onboard 3 employees by February 2024 and 2 employees by May 2024. The Authority therefore proposes to recompute the inhouse salary cost based on the revised recruitment plan and also to increase the annual average salary by 6% Y-o-Y (as against 10% claimed by TKIAL) in line with that allowed for Manpower expense of AAI and TKIAL for the remaining three (3) tariff years of the Third Control period.

10.2.79 In addition to this, TKIAL has projected reimbursement of the salary cost of Customs officials who will be handling the international cargo operations, under the head 'Customs cost recovery'. The Authority notes that TKIAL has taken over operations of both domestic and international cargo at TRV post-COD from AAICLAS, which was handling the cargo operations earlier. As per the MYTP submission, TKIAL was expected to begin the international cargo operation from 1st April 2023. As a result, TKIAL has estimated the salary cost of five (5) Customs officials as per para 7 of Circular No. 02/2021-Customs dated 19th January 2021 issued by the Department of Revenue, Ministry of Finance and arrived at Rs. 1.78 crores per annum as the cost in FY 2023-24. However, in the reply to queries dated 08th November 2023, TKIAL has informed, that the international cargo operation was expected to begin only by February 2024. Considering the revised start date, the Authority proposes to prorate the 'Customs cost recovery' expense for FY 2023-24. The Authority also proposes to consider Y-o-Y increase of 6% as against the 10% claimed by TKIAL in line with that allowed for Manpower expense of AAI and TKIAL for the remaining three (3) tariff years of the Third Control period. The Authority notes that Customs Cost recovery is waived off based on achievement of certain volume threshold. While the Authority has currently considered the cost estimate provided by TKIAL, the Authority directs TKIAL to ensure that waiver of charges is obtained as soon as the volume limits are reached.

10.2.80 The Authority's proposal as compared to TKIAL's submission is summarized in the table below:

Table 185: Cargo Operating expenses claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Insourced salary	-	1.00	1.35	2.39	2.86	**7.61**
O&M Cost	1.44	1.95	2.64	9.34	11.16	**26.53**
Customs Cost Recovery	-	1.80	1.98	2.18	2.40	**8.35**
Total Insurance expenses	**1.44**	**4.75**	**5.97**	**13.91**	**16.42**	**42.50**
As per the Authority						
Insourced salary						
Employees at the beginning of the year	-	1	4	6	6	
Employee addition during the year	-	3	2	-	-	**5**
Employees at the end of the year	-	4	6	6	6	
Month in which new employee is hired	-	Feb-24	May-24	-	-	
Avg. Salary per annum (Rs. in crores)	-	0.16	0.17	0.18	0.19	
Y-o-Y Growth (%)	-	-	6.00%	6.00%	6.00%	
Insourced salary (A)	**-**	**0.24**	**0.99**	**1.08**	**1.14**	**3.45**
O&M Cost						
Actual O&M cost	0.86*	1.80**	-	-	-	
Total TRV Market Volume (MT)	16,722	27,796	32,891	36,751	39,942	**1,54,102**
Adani Share of TRV Market Volume (MT)	1,382	2,750	8,000	25,726	27,959	**65,817**
Adani Market Share (%)	8%	10%	24%	70%	70%	
O&M fee per ton (Rs.)	2,860	2,869	2,978	3,091	3,208	
Inflation (%)	-	0.30%	3.80%	3.80%	3.80%	
O&M Cost (B)	**0.86**	**1.80**	**2.38**	**7.95**	**8.97**	**21.96**
Customs Cost Recovery						
Annual custom cost recovery (Rs. in crores)	-	1.78	1.88	2.00	2.12	
Y-o-Y Growth (%)	-	-	6.00%	6.00%	6.00%	
Months of Operation	-	3.00	12.00	12.00	12.00	
Customs Cost Recovery (C)	**-**	**0.44**	**1.88**	**2.00**	**2.12**	**6.44**
Total Cargo O&M expenses (A+B+C)	**0.86**	**2.48**	**5.25**	**11.03**	**12.23**	**31.85**

** Based on actuals reported by TKIAL*

*** Based on the terms of the Cargo O&M Services Agreement with Bangalore Airport Terminal Services Pvt Ltd*

Working Capital Interest, Annual Fee on Performance Bank Guarantee and Finance Charges

10.2.81 TKIAL has included the claim for Working Capital Interest and Finance charges as a separate line item than the other operation and maintenance expenses. The Authority notes that TKIAL has computed working capital interest based on the forecasted recovery of revenue and payment of expenses and has considered the entire expense as aeronautical. As per TKIAL submission there is a requirement for working capital for all tariff years of the Third Control Period.

10.2.82 The Authority has reviewed the computation of interest on working capital loan and verified the actuals for FY 2022-23 whereby the Authority noted that there is no evidence of working capital interest being incurred in the books of TRV for FY 2022-23. The Authority also reworked the cash flows based on the revised aeronautical operating expenses, traffic, and aeronautical revenues. As per this revised computation, the estimated interest on working capital loan amounts to Rs. 19.38 crores for the last four (4) tariff years of the Third Control Period. The Authority, therefore, proposes to not consider the interest on working capital loan in FY 2022-23 but consider Rs. 19.38 crores during computation of interest on working capital for the remaining four (4) tariff years.

10.2.83 The Authority notes that TKIAL has taken a Performance Bank Guarantee (PBG) of Rs. 80 crores for which TKIAL has to pay an annual fee at 0.50% of the guaranteed amount. The Authority proposes to consider the same as part of the costs for the current control period.

10.2.84 The Authority has reviewed the computation of interest on Finance Charges and notes that TKIAL has considered finance charges at the rate of 1.50% of the debt drawn down during the current control period. TKIAL has considered 65% of the total capital addition as being funded through debt for arriving at the debt draw down during the current control period. The Authority also verified the actual bank charges for FY 2022-23 which works out to Rs. 0.05 crores and proposes to consider the same for the first tariff year of the Third Control Period. For the remaining four (4) tariff years, the Authority has recomputed the Finance Charges by considering 48% (refer para 8.2.11) of the revised total capital addition, i.e. Rs. 1,374.57 crores (refer Table 137) as being funded through debt. As per this revised computation, the estimated finance charges amounted to Rs. 9.69 crores for the remaining four (4) years of the Third Control Period. The Authority notes that there is an increase in finance charges of 421% in FY 2025-26 in comparison to the previous year due to the capitalization of the project upgradation and expansion of Terminal T-II. The Authority, therefore, proposes to consider Rs. 0.05 crores for FY 2022-23 and Rs. 9.69 crores for computing the finance charges for the remaining four (4) tariff years of the current control period.

10.2.85 The Authority also proposes to consider the allocation of these expenses as given below:

- Finance Charges based on the revised Gross Block Ratio of 97.57%:2.43%
- Working Capital Interest to be considered as Aeronautical as the expense is computed based on aeronautical operating expenses and aeronautical revenues.
- PBG charges to be considered as Aeronautical based on the Clause 9.1.1 of the Concession Agreement which states that "*The Concessionaire shall, for the performance of its obligations during Phase I hereunder, provide to the Authority, no later than 20 (one hundred and twenty) days from the date of this Agreement, an irrevocable and unconditional guarantee from a Bank for a sum equivalent to Rs. 80,00,00,000 (Rupees Eighty Crore) in the form set forth in Schedule E ("Performance Security"). Until such time the Performance Security is provided by the Concessionaire pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security.*"

10.2.86 The Authority's proposal as compared to TKIAL's submission is summarized in the table below:

Table 186: Working Capital Interest, Annual Fees for PBG and Finance Charges claimed by TKIAL and proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
As per TKIAL						
Finance Charges	-	37.02	-	-	-	**37.02**
Annual Fees for Performance BG	0.40	0.40	0.40	0.40	0.40	**2.00**
Working Capital Interest	0.67	3.42	8.27	11.81	13.26	**37.43**
As per the Authority						

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Finance Charges	0.05	0.46	1.26	6.59	1.09	**9.46**
Annual Fees for Performance BG	0.40	0.40	0.40	0.40	0.40	**2.00**
Working Capital Interest	-	3.39	4.93	5.41	5.65	**19.38**

Note – The expenses for the FY 2022-23 are based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in para 10.2.85.

10.2.87 Considering the changes above, the Authority has recalculated the aeronautical operation and maintenance expenditure for Third Control Period as follows:

Table 187:Aeronautical operation and maintenance expenses proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	Ref.	FY 23*	FY 24	FY 25	FY 26	FY 27	Total
O&M expenses							
Manpower costs: AAI employees	Table 163	62.44	66.19	59.31	49.67	52.65	**290.25**
Manpower costs: TKIAL employees	Table 167	9.99	14.62	28.38	45.17	52.21	**150.37**
Utility Expenses	Table 169	13.20	13.24	13.54	13.91	15.04	**68.94**
IT expenses	Table 172	4.39	4.40	4.57	4.74	5.12	**23.22**
Rates & taxes	Table 172	0.50	0.50	0.52	0.54	0.59	**2.65**
Security expenses	Table 172	7.84	7.86	8.16	8.47	9.14	**41.46**
Corporate Allocation	Table 174	15.77	16.72	17.72	18.78	19.91	**88.91**
Administrative Expenses - Collection charges on UDF	Table 175	0.63	0.78	0.86	0.99	1.06	**4.33**
Administrative Expenses - Others	Table 176	13.92	13.96	14.49	15.04	15.61	**73.02**
Insurance	Table 177	1.78	1.84	2.09	3.04	3.30	**12.06**
R&M	Table 178	24.64	27.51	29.38	37.63	86.58	**205.75**
Other operating expenses**	Table 179	16.16	17.99	18.67	19.38	20.92	**93.12**
Independent Engineer Fees	Para 10.2.59	3.41	3.78	3.78	3.78	3.78	**18.54**
Runway recarpeting	Table 181	-	-	**16.33**	**24.31**	**22.31**	**62.95**
Total O&M expenses (A)		**174.66**	**189.40**	**217.79**	**245.46**	**308.25**	**1,135.56**
Fuel Operating expenses							
O&M Expenses	Table 183	-	-	6.37	13.77	14.77	**34.91**
Bowser Rental		-	-	0.99	0.99	-	**1.98**
Total Fuel O&M expenses (B)		**-**	**-**	**7.36**	**14.76**	**14.77**	**36.89**
Cargo Operating expenses							
Inhouse salary cost	Table 185	-	0.24	0.99	1.08	1.14	**3.45**
O&M Cost		0.86	1.80	2.38	7.95	8.97	**21.96**
Customs Cost Recovery		-	0.44	1.88	2.00	2.12	**6.44**
Total Cargo O&M expenses (C)		**0.86**	**2.48**	**5.25**	**11.03**	**12.23**	**31.85**
Finance Charges (D)	Table 186	0.05	0.46	1.26	6.59	1.09	**9.46**
Annual Fees for Performance Bank Guarantee (E)		0.40	0.40	0.40	0.40	0.40	**2.00**
Working Capital Interest (F)		-	3.39	4.93	5.41	5.65	**19.38**
Total Aeronautical O&M expenses (A+B+C+D+E+F)		**175.97**	**196.12**	**237.01**	**283.65**	**342.39**	**1,235.14**

** FY 2022-23 is based on actuals reported by TKIAL after applying the prescribed allocation ratio proposed by the Authority in Table 158.*

*** Other operating expenses include Upkeep and maintenance of Terminal complex, Horticulture expenses, outsourced contractor cost for providing facility management, trolley management, flight data management, daily emergency handling services etc.*

As can be seen above, the total O&M expenses proposed by the Authority for the Third Control Period is Rs. 1,235.14 crores as compared to Rs. 1,845.36 crores submitted by TKIAL. Following are the key reasons based on the adjustments, revisions and rationalization carried out by the Authority:

A. Consideration of actual expenses for FY 2022-23 – Impact of Rs. 16.89 crores
B. Revision in growth rates of various expenses, consideration of Finance Charges, Annual fees for Performance Bank Guarantee, Working Capital Interest, etc. – Impact of Rs. 543.31 crores
C. Re-allocation of the expenses into aeronautical, non-aeronautical and common – Impact of Rs. 46.81 crores
D. Rationalization of Employee Head Count – Impact of Rs. 3.22 crores
E. Rationalization of costs in certain categories is due to changes made by the Authority in certain capital expenditure projects including the timing of capitalization and the cost estimation.

10.2.88 Based on the above considerations, the Authority proposes the following growth rates in Operation & Maintenance (O&M) expenses, Fuel Operating expenses and Cargo Operating expenses, as compared to the projections submitted by TKIAL.

Table 188: Growth rates in O&M expenses considered by the Authority for the Third Control Period

Expense Category	Basis	FY 23	FY 24	FY 25	FY 26	FY 27
O&M expenses						
Manpower costs: AAI employees	Y-o-Y	-	6.00%	6.00%	6.00%	6.00%
Manpower costs: TKIAL employees	Y-o-Y	-	6.00%	6.00%	6.00%	6.00%
Utility Expenses	Inflation	-	0.30%	3.80%	3.80%	3.80%
IT expenses	Inflation	-	0.30%	3.80%	3.80%	3.80%
Rates & taxes	Inflation	-	0.30%	3.80%	3.80%	3.80%
Security expenses	Inflation	-	0.30%	3.80%	3.80%	3.80%
Corporate Allocation	Y-o-Y	-	6.00%	6.00%	6.00%	6.00%
Administrative expenses - Others	Inflation	-	0.30%	3.80%	3.80%	3.80%
Insurance	Inflation	-	0.30%	3.80%	3.80%	3.80%
R&M		-	-	-	-	-
Other operating expenses	Inflation	-	0.30%	3.80%	3.80%	3.80%
Independent Engineer Fees		-	-	-	-	-
Runway recarpeting	Inflation	-	0.30%	3.80%	-	-
Fuel Operating expenses						
O&M Expenses	Inflation	-	-	-	3.80%	3.80%
Bowser Rental		-	-	-	-	-
Cargo Operating expenses						
Inhouse salary cost	Y-o-Y	-	-	6.00%	6.00%	6.00%
O&M Cost	Inflation	-	0.30%	3.80%	3.80%	3.80%
Customs Cost Recovery	Y-o-Y	-	-	6.00%	6.00%	6.00%

10.2.89 The Authority has also considered an additional increase on account of the increase in terminal areas as the upgradation and expansion of Terminal Building T-II is being considered to be undertaken in the current control period.

10.2.90 The Authority expects TKIAL to bring efficiencies in incurrence of O&M expenses for the benefit of airport users and in line with the AERA Act, AERA Guidelines and ICAO Principles.

10.3 Authority's proposals regarding Operation and Maintenance Expenses for the Third Control Period

Based on the material before it and its analysis, the Authority proposes the following with respect to Operation and Maintenance Expenses for the Third Control Period:

10.3.1 To consider O&M Expenses for the Third Control Period as per Table 187.

10.3.2 To consider the O&M expenses incurred by TKIAL during the Third Control Period subject to reasonableness and efficiency, at the time of tariff determination for the next Control Period.

11 NON-AERONAUTICAL REVENUE (NAR) FOR THE THIRD CONTROL PERIOD

11.1 TKIAL's submissions regarding Non-Aeronautical Revenue (NAR) for the Third Control Period

11.1.1 TKIAL in its submission dated 21st February 2023 to AERA has stated that it follows a Master Concessionaire model for managing commercial activities at the Airport.

11.1.2 TKIAL has submitted that it outsourced all non-aeronautical businesses as mentioned below to the Master Concessionaire, Adani Airport Holdings Limited, vide Master Services Agreement executed on 25th October 2021 and effective from December 2021. As per the Agreement, the scope of the Master Concessionaire is to develop, operate, maintain, manage the non-aeronautical businesses at TRV, in accordance with best-in-class standards and good industry practices, and at par with facilities at comparable airports as below:

- Duty-free stores
- Food and beverages outlets
- Retail outlets
- Lounges
- Advertising, Sponsorship and promotion opportunities
- Car parks and ground transportation facilities
- Airport hotels and transit hotels
- Preferred partners association for including but not limited to pouring rights, services in air (Wi-Fi, Bluetooth, aroma etc.), music and video rights, mobile wallet, payment gateway and other as may be approved by TKIAL
- Business Center
- City side development
- Flight catering services
- Foreign exchange services
- Freight consolidators/forwarders or agents
- Left luggage, lost and found, excess baggage
- Messenger services
- Porter service
- Special assistance services
- Vending Machines
- Meet and assist services
- Provision of land and space for various stakeholders at Airport
- Various other passenger amenities, including but not limited to, banks, foreign exchange, SIM card, child-care room, kids play areas, car rental and hotel reservation counters, digital wallet tie-ups, ATMs, Spas, and entertainment areas
- Airport village comprising of various retail, food and beverage, entertainment and amenities options; and
- Any other services as may be mutually agreed by the parties or permitted pursuant to the Applicable Laws.

11.1.3 As per the terms of the Master Services Agreement, the Service provider (Adani Airport Holdings Limited) shall pay to TKIAL an amount which is higher of the following:

i. Minimum Guarantee amount of Rs. 20 crores per annum or

ii. The amount arrived at by multiplying the Revenue Share Percentage (10%) with Gross Revenue in that year.

11.1.4 Further, it is stated in the Agreement that the Minimum Guarantee amount of Rs. 20 crores per annum shall remain unchanged for the first five years from the date of signing the Master Services Agreement. Thereafter, it shall be increased at the rate of 50% of the Delta Consumer Price Index (CPI) every year.

11.1.5 Apart from the Revenue from the Master Concessionaire, TKIAL also receives rentals from various government agencies like Customs, Immigration, CISF, Plant or Animal Quarantine, IMD, Coast Guard, Air Force, BCAS, etc. The annual rental amounted to Rs. 0.50 crores in FY 2022-23 and thereafter is escalated Y-o-Y at 5%

11.1.6 Based on the above, the Non-Aeronautical Revenue submitted by TKIAL for TRV is given in the table below:

Table 189: Non-Aeronautical Revenue submitted by TKIAL for the Third Control Period

(Rs. in crores)

Particulars	FY 23	FY 24	FY 25	FY 26	FY 27	Total
Revenue from Master Service Agreement	20.00	20.00	20.00	20.00	20.00	**100.00**
Other Income (not covered under Master Service Agreement)	0.50	0.53	0.55	0.58	0.61	**2.76**
Total	**20.50**	**20.53**	**20.55**	**20.58**	**20.61**	**102.76**

11.2 Authority's examination regarding Non-Aeronautical Revenue (NAR) for the Third Control Period

11.2.1 The Authority has examined the Non-Aeronautical Revenue submitted by TKIAL for the Third Control Period and reviewed the Master Services Agreement entered into by TKIAL with the Master Concessionaire – Adani Airport Holdings Limited with respect to scope of services outsourced to the Master Concessionaire and the revenue sharing arrangement.

11.2.2 The Authority notes that TKIAL undertook a two-stage tendering process through e-tender mode vide Request for Proposal (RFP) dated 17th August 2021.

11.2.3 The Authority, in this regard examined the extract of the relevant clauses of the RFP which read as under:

"***6.2 Qualifying Eligibility Criteria***

Each Bidder shall satisfy the following qualifying Eligibility Criteria:

(a) Technical Eligibility Criteria

The Bidder must have:

(i) (a) experience in operations or management or development of at least 4 (four) out of the following 6 (six) non-aero businesses at airports at the time of submission of the Technical Proposal, i.e. (I) in-flight catering; (II) duty-free retail; (III) retail and services; (IV) food and beverage services; (V) car parking; and (VI) advertisement; or (b) is an operator of an airport where 4 (four) out of the 6 (six) non-aero businesses (as mentioned above) are being undertaken.

(ii) experience of leasing out and/ or development and/ or management of commercial real estate with a built up area of at least 1,00,000 (one lakh) square meters.

(b) Financial Eligibility Criteria

Basis the audited balance sheet and profit and loss account along with schedules ("Audited Financial Statements"), the Bidder should have:

(i) an average annual turnover of at least Rs. 750,00,00,000 (Rupees Seven Hundred and Fifty crores only) in the last 3 (three) financial years; and
(ii) Net Worth as on March 31, 2021 of Rs. 250,00,00,000 (Rupees Two Hundred and Fifty crores only). "Net Worth" shall have the meaning as defined under the Companies Act, 2013."

11.2.4 The Authority on review of the qualifying criteria as specified by TKIAL observes the following:

Technical Eligibility Criteria

- TKIAL has specified Experience of leasing out and/or development and/or management of commercial real estate with a built-up area of at least 1,00,000 (one lakh) square meters.
- AERA observation of restrictive criteria: Specifying 1,00,000 Sqm commercial space is too high with respect to present scope of work.

Financial Eligibility Criteria

i) Turnover
   - TKIAL has specified an average annual turnover of at least Rs. 750 crores in the last 3 financial years and net worth as on 31.03.2021 of Rs. 250 crores
   - AERA observation of restrictive criteria: As per general public procurement guidelines in vogue, average financial turnover should be 30% of the estimated cost. So, in place of Rs. 30 crores average annual turnover, TKIAL has specified Rs. 750 crores turnover (which is 25 times)

ii) Net worth
   Asking net worth of Rs. 250 crores is very restrictive for a work value of Rs. 100 crores (approx.) as many Airport Operators are specifying only Positive net worth.
   - Due to such restrictive criteria, only 2 agencies (out of these 2, one was a related party and other is an Airport Operator) participated in the tender and work was awarded to agency quoting 10% revenue share percentage.
   - In fact, now a days other Airport Operators have dispensed with technical eligibility criteria in Non-Aeronautical activities tenders to attract more and more agencies and to encourage healthy competition.

11.2.5 Pursuant to the above RFP, two prospective bidders had submitted their proposals to TKIAL. Based on technical qualification, financial parameters and evaluation criteria provided under the RFP, Adani Airport Holdings Limited (AAHL) was selected as the Service Provider, TKIAL, then entered into a Master Services Agreement with AAHL. The Authority notes that the revenues projected by TKIAL are based on the said Agreement.

11.2.6 The Authority notes that the total non-aeronautical revenue projected by TKIAL for the Third Control Period is only Rs. 102.76 crores (refer Table 189) which is substantially lower than the actual non-aeronautical revenue earned by AAI for the Second Control Period (i.e., FY 2016-17 till FY 2020-21) which was Rs. 285.86 crores (refer Table 50) despite the effect of COVID-19 pandemic. The following table and chart show the year wise NAR earned by AAI during the Second Control Period and the projections of TKIAL for the Third Control Period:

Table 190: Year-wise NAR earned by AAI and projected by TKIAL

(Rs. in crores)

Financial Year	AAI	TKIAL
2016-17	50.62	
2017-18	54.84	
2018-19	71.71	
2019-20	87.11	
2020-21	21.58	
2022-23		20.50
2023-24		20.53
2024-25		20.55
2025-26		20.58
2026-27		20.61
Total	**285.86**	**102.76**

Figure 1: Year-wise NAR earned by AAI and projected by TKIAL

(Rs. in crores)

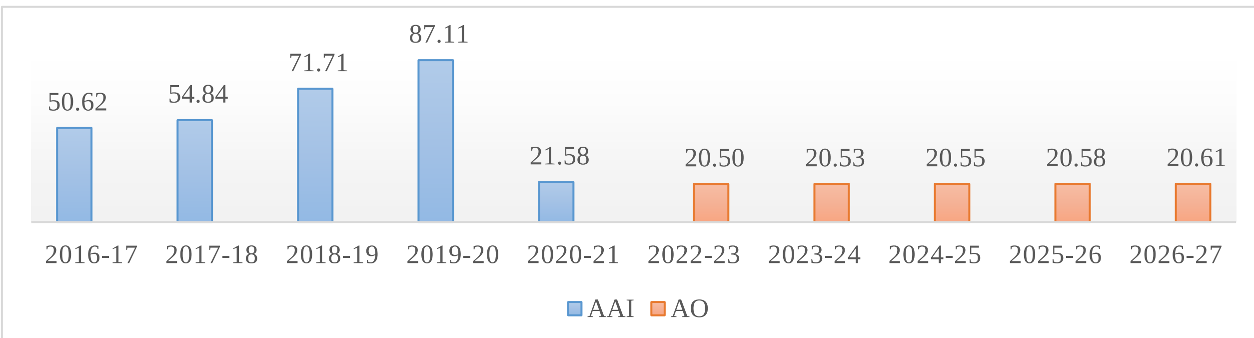
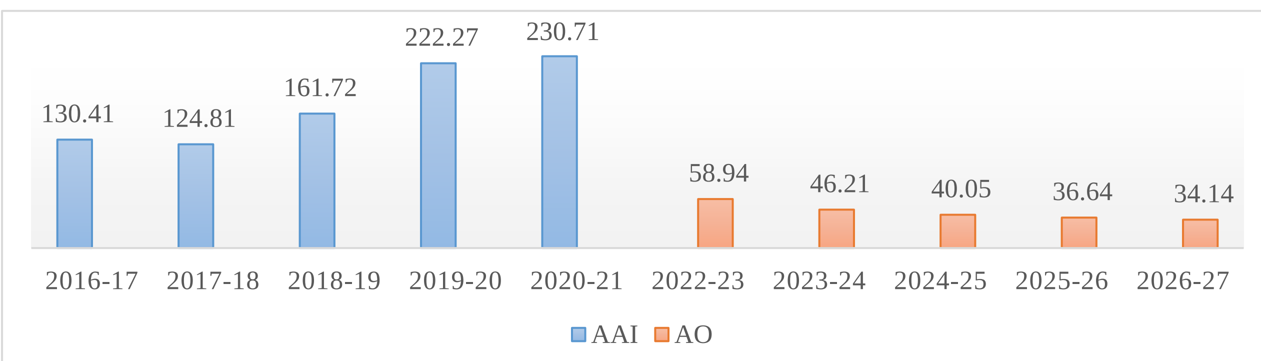


Figure 2: Year-wise NAR per passenger earned by AAI and projected by TKIAL

(Rs. per PAX)



11.2.7 The Authority also observed that the NAR projected by TKIAL for the Third Control Period is significantly lower as compared to that of other PPP airports (DIAL, MIAL, BIAL, GHIAL, CIAL), wherein the NAR projected by such PPP airports are at least 50% of the total O&M expenses projected by them for the respective Control Period. Whereas in the case of TRV, the Authority notes that the NAR projected by TKIAL for the Third Control Period is Rs. 102.76 crores, which is minuscule as compared to the O&M expenses submitted by TKIAL which is Rs. 1,752.35 crores (refer Chapter 10).

11.2.8 The Authority takes cognizance of the fact that non-aeronautical revenues projected for the Third Control Period by TKIAL, considers the pandemic and economic conditions on traffic which will reduce the consumer spending at the airport. However, the Authority is not convinced about the revenue projection in the Master Service Agreement, which remains constant for the period while all other costs increase substantially. Further, it is the responsibility of TKIAL to ensure that they achieve NAR higher than what was achieved in the Second Control Period. In this context, there was no obligation on TKIAL to accept the bid of the Master Concessionaire offering such a low revenue share.

11.2.9 The Authority notes that TKIAL has proposed re-alignment and creation of additional spaces in Terminal-II together with carrying out certain expansion activities. However, TKIAL has not proposed any incremental revenues from Non-Aeronautical services that may be earned from increase in space.

11.2.10 When an Airport Operator takes an initiative, such as undergoing an open global competitive bidding process, it is for the betterment of the airport and is in the interest of the Airport users. The Holding Company (Group entity of Adani Enterprises Limited itself) was selected as the Master Concessionaire. However, the selected Group entity does not have direct experience of handling such services and may have to engage other experienced operators for provision of different services. This does not result in enhancing the material gains to the airport users by higher cross subsidization of NAR. It is pertinent to note that the Airport Operator could have leveraged the technical know-how to bring in efficiencies in generating NAR without the master concessionaire. No advantages have been granted to the Airport users on account of this Master concession agreement.

11.2.11 Moreover, considering the positive outlook provided by the Expert Agencies, the outlook of the GDP growth predicted by the GoI and the encouraging trend in the traffic numbers reported in FY 2022-23 and the first half of FY 2023-24 (April 2023 to September 2023), the Authority is of the view that the Passenger traffic will revert to pre-COVID levels by FY 2023-24. Further, the traffic is expected to progressively increase during the Third Control Period (as discussed in Chapter 6).

11.2.12 With the steady increase in passenger traffic, the Authority foresees an increase in passenger-related non-aeronautical revenue across the Third Control Period. Further, the Authority noted that the projection for NAR is substantially less than the projection for O&M expenses during the same period and therefore expects TKIAL to bring in efficiencies in non-aeronautical operations as followed by other PPP airports wherein the proportion of non-aeronautical revenue projected by the airport operator is equal or comparable to the quantum of O&M expenses. This will impact the interest of the airport users as 30% of the non-aeronautical revenue is used for cross-subsidization. Hence, the Authority urges TKIAL that it should make efforts to generate non-aeronautical revenue higher than that was earned by AAI during the Second Control period.

11.2.13 TKIAL, in its MYTP submission has estimated Revenues from space rentals from Government agencies to be Rs. 0.50 crores. TKIAL has considered a 5% increase in these rates Y-o-Y. Based on the review of the agreements submitted by TKIAL, the Authority notes that the revenue for FY 2022-23 is Rs. 0.08 crores which the Authority proposes to consider, instead of the estimate submitted in MYTP, together with a 5% increase every year.

11.2.14 The Authority also noted that in TKIAL's subsequent submission on actual NAR for FY 2022-23 of Rs. 22.64 crores, Rs. 0.58 crores relate to Notional Income from Security Deposit and proposes to not consider the same while determining NAR for FY 2022-23 as it is an IND AS adjustment. The Authority also notes that Rs. 0.43 crores relate to Aerodrome Entry Permit (AEP) Charges. AEP Charges relate to entry permits for the Airport and its stakeholders. The Authority proposes to consider the same as NAR for FY 2022-23.

11.2.15 On review of the transactions relating to Non-Aeronautical Revenue, the Authority noticed that the NAR submitted by TKIAL included Rs. 1.56 crores related to space rented by agencies providing aeronautical services including airlines as given below.

Table 191: Breakup of revenue from agencies involved in aeronautical activities for FY 2022-23

(Rs. in crores)

Particulars	Amount
Air India Ltd	0.02
Others including Cargo, Ground Handling and Fuel service providers	1.54
Total	**1.56**

11.2.16 The Authority is of the view that space rentals from agencies providing aeronautical services should be treated as Aeronautical revenue. Hence, the Authority proposes to consider revenue from space rentals and common maintenance collected from such agencies, amounting to approximately Rs. 1.56 crores as Aeronautical revenue.

11.2.17 Based on the above discussion the adjustments to the actual Non-Aeronautical Revenue for FY 2022-23 are as given below

Table 192: Adjustment to Revenue from Non-Aeronautical Services considered by the Authority for FY 2022-23

(Rs. in crores)

Particulars	FY23
Actual Non-Aeronautical Revenue as submitted by TKIAL (A)	22.64
Adjustment:	
Revenue from agencies providing aeronautical services including airlines (B)	1.56
Notional Income on Security Deposit (C)	0.58
Non-Aeronautical Revenue as per the Authority (A – B – C)	**20.50**

11.2.18 Based on the above considerations, the Authority has estimated the total non-aeronautical revenues for the Third Control Period for TRV as follows:

i. The NAR earned by AAI in FY 2019-20, which is a pre-COVID year, is considered as the base for estimating the NAR for TRV for the Third Control Period.
ii. The Authority has considered the actual revenue earned by TKIAL for FY 2022-23.
iii. Further, the Authority notes that the actual NAR for FY 2022-23 includes Space rental from Govt. agencies amounting to approximately Rs. 0.08 crores and proposes to consider the same. The Authority also proposes to consider the revenue from space rental to Govt. agencies from FY 2023-24 based on the terms of the agreement with the respective agencies.
iv. The Authority proposes not to consider Rs. 0.58 crores of Notional Income on Security Deposit as it relates to IND AS adjustment.
v. The Authority proposes to consider the Rs. 0.43 crores of AEP Charges as part of the Non-Aeronautical Revenue.
vi. The Authority also proposes to consider the revenue from space rentals of approximately Rs. 1.56 crores from the agencies providing aeronautical services as Aeronautical revenue and not be considered as part of the NAR for the Third Control period.
vii. The NAR of FY 2019-20 i.e., Rs. 87.11 crores have been assumed for FY 2023-24, as the traffic is expected to reach the pre-COVID level of FY 2019-20 by FY 2023-24 (as explained in Chapter 6).

11.2.19 The Authority proposes to increase NAR Y-o-Y in line with inflationary increase given in Table 153 for the remaining tariff years of the Third Control Period. The Authority also takes cognizance of the fact that with the refurbishment of existing Terminal-II has been allowed to be undertaken in the Third Control Period and therefore proposes to consider the additional increase of 6.24% as submitted by TKIAL to the NAR in FY 2026-27 (refer para 10.2.14).

11.2.20 The NAR derived by the Authority based on the above factors has been presented as follows:

Table 193: Total Non-aeronautical revenues estimated by the Authority for Third Control Period

(Rs. in crores)

Particulars	FY20*	FY23	FY24	FY25	FY26	FY27	Total
Total NAR	87.11	20.50	87.11	90.42	93.86	103.28	**395.18**
% Increase in NAR				*3.80%*	*3.80%*	*10.04%*	

**NAR earned by AAI in FY 2019-20 (Refer Table 50)*

11.2.21 Based on the total NAR derived as per Table 193, the Authority has bifurcated it component wise as under:

i. **Revenue from Master Service Agreement**: This has been derived as the difference between total NAR as per Table 193 and the other income which includes Space rental from Govt. Agencies.

ii. **Non-Aero Rent from Govt. Agencies**: The revenue from space rented to Govt. agencies has been computed as per the terms of the agreement wherein a Y-o-Y increase of 10% was considered on the rate per sqm.

iii. **Other income**: The Authority has considered the actual revenue for FY 2022-23 and thereafter projected by considering an inflationary increase as given in Table 153 for the remaining four (4) tariff years.

Table 194: Non-aeronautical revenues (component-wise) proposed by the Authority for the Third Control Period

(Rs. in crores)

Particulars	FY23*	FY24	FY25	FY26	FY27	Total
1. Revenue from Master Service Agreement (A)	20.00	86.58	89.86	93.27	102.64	**392.35**
2. Other Income (B) (not covered under Master Service Agreement)						
a. Notional Income on Security Deposit	-	-	-	-	-	-
b. Non-Aero Rent from Govt. Agencies (including Common Maintenance Charge)	0.08	0.10	0.11	0.13	0.14	**0.56**
c. Other Incomes (AEP Charges etc.)	0.43	0.43	0.44	0.46	0.51	**2.27**
Total other income	**0.50**	**0.53**	**0.56**	**0.59**	**0.65**	**2.83**
Total NAR for the year (C=A+B)	**20.50**	**87.11**	**90.42**	**93.86**	**103.28**	**395.18**

**As per actuals of FY 2022-23*

11.2.22 The Authority is of the view that TKIAL should make efforts to substantially increase NAR for the Third Control Period in line with the other PPP airports.

11.3 Authority's proposals regarding Non-Aeronautical Revenue (NAR) for the Third Control Period

Based on the material before it and its analysis, the Authority proposes the following with regard to Non-Aeronautical Revenue for the Third Control Period:

11.3.1 To consider Non-Aeronautical Revenues for the Third Control Period for TRV as per Table 194.

11.3.2 Non-Aeronautical Revenue will not be trued up at the time of tariff determination of next control period if it is lower than that proposed by the Authority in Table 194.

12 TAXATION FOR THE THIRD CONTROL PERIOD

12.1 TKIAL's submission regarding Taxation for the Third Control Period

12.1.1 TKIAL has submitted its computation of tax for the Third Control Period based on the following considerations.

- Income tax has been computed based on the prevailing Income Tax laws and rules, and the tax rate has been considered at 25.17%
- The aeronautical segment has been considered as a standalone entity.
- 30% of Non-Aeronautical Revenue which was reduced from ARR is added back to arrive at the Aeronautical Revenue
- The Concession Fee is not considered as an expenditure in line with the Supreme Court judgement dated 7th July 2022 in the case of Delhi and Mumbai airports.

12.1.2 The Aeronautical Tax as submitted by TKIAL is given below.

Table 195: Aeronautical Tax submitted by TKIAL for the Third Control Period

(Rs. in crores)

Particulars	Ref.	FY23	FY24	FY25	FY26	FY27	Total
Aero Revenues	A	202.11	548.96	976.84	1,131.61	1,270.59	**4,130.11**
Add: 30% Non-Aero Revenues	B	6.15	6.16	6.17	6.17	6.18	**30.83**
Less: Aero O&M Expenses	C	198.33	336.92	383.69	466.93	535.95	**1,921.81**
Less: Depreciation	D	55.75	71.96	135.17	236.23	352.05	**851.16**
Aero PBT	**E=A+B-C-D**	**(45.83)**	**146.24**	**464.15**	**434.63**	**388.77**	**1,387.96**
Tax expenses @25.17%	**F=E*25.17%**	**-**	**36.81**	**116.83**	**109.40**	**97.85**	**360.88**

12.2 Authority's examination regarding Taxation for the Third Control Period

12.2.1 The Authority notes that TKIAL has considered 30% non-aeronautical revenues in the estimation of Aeronautical Proft Before Tax (PBT), which was then used in the computation of Aeronautical taxes. The fact that a part of non-aeronautical revenues is used for cross-subsidization as per the Hybrid Till mechanism does not change the nature of such revenues to Aeronautical. Further, the cross-subsidization as per the Hybrid till mechanism is done in order to reduce tariff pressure on passengers and to incentivize TKIAL to make effective investments in non-aeronautical income-generating sources.

12.2.2 Therefore, the Authority is of the view that:

- Non-Aeronautical revenues (30%) should not be treated as a subsidy for TKIAL as the airport operator has already earned it from non-aeronautical services but is meant as a cross-subsidy to the airport user.
- The consideration of 30% non-aeronautical revenues as part of revenues from Aeronautical services would result in undeserved enrichment to the airport operator effectively reducing the cross-subsidy benefit to the airport user from the present 30% of the Non-Aeronautical income.

12.2.3 The Authority, thus, proposes to consider only Aeronautical revenues and expenses in the calculation of Aeronautical PBT.

12.2.4 The Authority has also noted that TKIAL has not considered the interest expense on the long-term borrowings while computing the Aeronautical PBT for the Third Control Period. This has resulted in estimating higher

Aeronautical Profit and consequently, higher Aeronautical taxes. The Authority proposes to consider interest expense as a deduction in estimating the Aeronautical P&L.

12.2.5 The Authority has recomputed the Aeronautical taxes for TRV based on the changes proposed to the other building blocks and based on the proposal discussed above in para 12.2.2 and 12.2.3 with regard to Non-Aeronautical Revenue.

12.2.6 The Authority has considered the prior period losses during the post COD period till 31st March 2022 in the computation of taxes of TKIAL for the Third Control Period (refer Table 79).

12.2.7 The Authority notes that as per Clause 28.11.4 of the CA, the Adjusted Deemed Initial RAB will be reduced for over-recoveries of Aeronautical Revenues, or increased for under-recoveries, impacting Aeronautical Charges for the next Control Period. The Authority has considered that the compensation paid to AAI by TKIAL for shortfall, will be claimed as a deduction in the Income Tax computation of TKIAL and the same has been considered accordingly in estimating the taxes below.

12.2.8 The following table summarizes the Aeronautical taxes proposed by the Authority for the Third Control Period.

Table 196: Taxation proposed to be considered by the Authority for the Third Control Period

(Rs. in crores)

Particulars	Ref.	FY23	FY24	FY25	FY26	FY27	Total
Aero Revenues*	A	311.44	547.12	632.04	691.77	743.47	**2,925.83**
Aero O&M Expenses (refer Table 187)	B	175.97	196.12	237.01	283.65	342.39	**1,235.14**
Interest Expense	C	52.37	62.81	67.98	91.56	114.61	**389.33**
Depreciation as per IT Act**	D	54.69	56.33	65.37	116.33	158.49	**451.20**
Payment to AAI - PV of Under-recovery as on 31st March 2023 (Table 58)	E	789.29	-	-	-	-	**789.29**
Aero Profit Before Tax	**F=A-(B+C+D+E)**	**-760.88**	**231.86**	**261.68**	**200.23**	**127.98**	**60.88**
Previous loss adjustment	G	-	231.86	261.68	200.23	100.59	
Taxable Profit	**H=F-G**	**-**	**-**	**-**	**-**	**27.40**	**27.40**
Tax rate (%)	I	25.17%	25.17%	25.17%	25.17%	25.17%	
Aeronautical Tax	**J=H*I**	**-**	**-**	**-**	**-**	**6.90**	**6.90**
Opening Losses	K	-33.48	-794.36	-562.50	-300.82	-100.59	
Current period (loss)/profit	L=F	-760.88	231.86	261.68	200.23	127.98	
Closing Losses	M=K+L	-794.36	-562.50	-300.82	-100.59	-	

**This is subject to revision based on tariff rate card which is to be submitted by TKIAL (refer para 14.2.11). For FY 2022-23, actual revenue has been considered.*
***Computed using WDV method considering useful lives as per IT Act.*

12.3 Authority’s proposals regarding Taxation for the Third Control Period

Based on the material before it and based on its analysis, the Authority proposes the following with regard to Taxation for the Third Control Period.

12.3.1 To consider the Taxation for the Third Control Period for TRV as per Table 196.

12.3.2 To true up the aeronautical tax amount appropriately taking into consideration all relevant factors at the time of tariff determination for the Fourth Control Period.

13 QUALITY OF SERVICE FOR THE THIRD CONTROL PERIOD

13.1 TKIAL's submissions regarding Quality of Service for the Third Control Period

13.1.1 TKIAL has submitted that it will abide by the ASQ performance indicators mentioned in Annexure 1 of Schedule H of the Concession Agreement.

Clause 23.7.1 of the CA states:

The Concessionaire shall participate in the user survey of ASQ undertaken by Airports Council International ("ACI") or any substitute thereof, conducted every quarter and shall ensure that the Airport achieves and maintains a rating of at least 4.5(four point five) out of 5.0 (five) and / or shall appear within top 20 (twenty) percentile of all airports, in its category in the world in such survey within 5 (five) years from the COD and maintain the same throughout the rest of the Concession Period.

Clause 23.7.2 of the CA states:

"The Concessionaire shall, within 21 (twenty-one) days of the end of each calendar quarter, provide to the Authority a written report on the results of the user survey of ASQ for the immediately preceding quarter, together with its analysis of the results and the action, if any, that it proposes to take for improvement in User satisfaction."

13.1.2 TKIAL has further submitted that adherence and maintenance of these standards will require creation of significant infrastructure, ramp-up of human resource and increase in operations and maintenance costs and that the TKIAL has considered the cost implications, while preparing future projections as part of its MYTP submission.

13.2 Authority's examination regarding Quality of Service for the Third Control Period

13.2.1 The Authority notes that:

- As per section 13(1)(d) of the AERA Act, 2008, the Authority shall *"monitor the set performance standards relating to quality, continuity and reliability of service as may be specified by the Central Government or any Authority authorized by it in this behalf."*
- As per section 13(1)(a)(ii), the Authority is required to determine the tariff for Aeronautical services taking into consideration *"the service provided, its quality and other relevant factors."*

13.2.2 The Authority noted from AAI's website and TKIAL's submission that the ACI ASQ survey results for TRV for the year 2018 to 2022 Q3 have been in the range of 4.78 to 4.91 (overall score), as against the average score of AAI Airports which ranges from 4.60 to 4.73.

Table 197: ASQ ratings for TRV for the years 2018 to 2022

Year	ASQ rating
2018	4.86
2019	4.86
2020	4.91
2021	4.91
2022 – Q1	4.93
2022 – Q2	4.72
2022 – Q3	4.70

13.2.3 The Authority notes that the ASQ rating awarded to TRV is higher than the average rating of the AAI airports for the FYs 2018 to 2022.

13.2.4 The Authority also notes that as per the Concession Agreement, TRV is required to maintain an ASQ rating of at least 4.5 out of 5. The Authority notes that TRV has achieved an ASQ rating of 4.70 to 4.93 during the first 3 quarters of the year 2022, which is higher than the requirement given in the Concession Agreement.

13.2.5 Based on the above factors, the Authority does not propose any adjustment towards tariff determination for the Third Control Period on account of the quality of service maintained by TRV.

13.3 Authority's proposals regarding Quality of Service for the Third Control Period

Based on the material before it and its analysis, the Authority proposes the following with regard to Quality of Service for the Third Control Period:

13.3.1 Not to consider any adjustment towards tariff determination for the Third Control Period with regard to Quality of Service of TRV.

13.3.2 TKIAL should ensure that service quality at TRV conforms to the performance standards as indicated in the Concession Agreement throughout the Third Control Period.

14 AGGREGATE REVENUE REQUIREMENT (ARR) FOR THE THIRD CONTROL PERIOD

14.1 TKIAL's submission regarding Aggregate Revenue Requirement (ARR) for the Third Control Period

14.1.1 TKIAL has submitted ARR and Yield per Passenger (YPP) for the Third Control Period as per the regulatory building blocks discussed.

14.1.2 The summary of ARR and YPP has been presented in the table below.

Table 198: ARR submitted by TKIAL for the Third Control Period

(Rs. in crores)

Particulars	FY23	FY24	FY25	FY26	FY27	Total
Average RAB	444.84	565.00	1,145.11	2,035.98	3,136.30	
Fair Rate of Return	14.76%	14.76%	14.76%	14.76%	14.76%	
Return on Average RAB	65.64	83.37	168.97	300.43	462.79	**1,081.21**
O&M expenses including working capital & finance charges	198.33	336.92	383.69	466.93	535.95	**1,921.81**
Depreciation	51.90	73.63	113.28	176.65	244.28	**659.74**
Tax	-	36.81	116.83	109.40	97.85	**360.88**
Less: 30% NAR	-6.15	-6.16	-6.17	-6.17	-6.18	**-30.83**
Add: True-up for SCP for AAI	-	-	-	-	-	**-**
Add: True-up for SCP for TKIAL	84.57	-	-	-	-	**84.57**
ARR per year	**394.29**	**524.56**	**776.60**	**1,047.23**	**1,334.69**	**4,077.38**
Discount Factor @14.76%	1.00	0.87	0.76	0.66	0.58	
PV of ARR	394.29	457.11	589.72	692.97	769.63	**2,903.73**
Sum of PV of ARR	**2,903.73**					
Total passenger traffic (MPPA)	3.46	4.44	5.13	5.62	6.04	**24.68**
Yield per passenger (YPP)	**584.69**	**1,077.06**	**1,445.71**	**1,333.41**	**1,213.94**	

14.2 Authority's examination regarding Aggregate Revenue Requirement (ARR) for the Third Control Period

14.2.1 The observations and proposals of the Authority across the regulatory building blocks impact the computation of ARR and Yield. With respect to each element of the regulatory building blocks considered by TKIAL in the computation of ARR and Yield in the table above, the Authority proposes to consider the regulatory building blocks as discussed in the respective previous chapters.

14.2.2 The Authority notes that the AO has on-going capital expenditure projects and other planned works, which has resulted in a higher ARR for the Third Control Period. The traffic estimates for the current control period have also been made on the backdrop of the recovery from the impact caused by COVID-19 pandemic. The existing traffic base may not be sufficient for the complete recovery of ARR in the current Control Period and that this would require a significant increase in tariff, which in the present times is likely to adversely impact the recovery of air traffic. Further, a significant increase in Aeronautical tariff, is also attributable on account of the fact that the new Aeronautical tariff proposed by the Authority may be implemented only by the first quarter of next Financial Year, thereby resulting in lesser tariff years being available for recovery of the ARR.

14.2.3 In this regard, the Authority had drawn reference to the guiding principles issued by the International Civil Aviation Organization ("ICAO") on charges for Airports and Air Navigation Services (ICAO DoC 9082), which lays down the main purpose of economic oversight which is to achieve a balance between the interest of Airports and the Airport Users. This policy document categorically specifies that caution be exercised when attempting to compensate for shortfalls in revenue considering its effects of increased charges on aircraft operators and end users. The said policy document also emphasizes balancing the interests of airports on one hand and aircraft operators, end users on the other, in view of the importance of the air transport system to States. This should be applied particularly during periods of economic difficulty. Therefore, the policy document recommends that States encourage increased cooperation between airports and aircraft operators to ensure that the economic difficulties facing them all are shared in a reasonable manner.

This may also be read in conjunction with the objectives of the National Civil Aviation Policy (NCAP) 2016, which intends to provide affordable and sustainable air travel for passengers/ masses. As per para 12 (c) of the NCAP, *"In case the tariff in one particular year or contractual period turns out to be excessive, the Airport Operator and the Regulator will explore ways to keep the tariff reasonable and spread the excess amount over the future."* The above has also been conveyed by AERA vide its Order No. 14/2016-17 dated 12th January 2017.

14.2.4 Determination of Aeronautical charges and UDF requires a delicate balance between cost recovery and its potential impact on air traffic demand. This balance is crucial for the financial viability of the airport and its ability to sustain operations while also ensuring that the tariffs remain competitive enough to attract and retain airlines and passengers. Therefore, the Authority, based on the Tariff Rate Card to be submitted by TKIAL would decide the balance between cost recovery and its potential impact on air traffic demand.

14.2.5 The Authority notes that, it is necessary to have the individual year wise tariff card laying down the different aeronautical charges and the workings for the aeronautical revenues, in order to have a constructive stakeholder discussion and hence TKIAL is directed to submit the detailed Annual Tariff proposals in line with the ARR and Yield arrived at by the Authority within 7 days of issue of the Consultation Paper.

Air Freight Station (AFS)

14.2.6 The Authority notes the Policy Guidelines on 'Air Freight Station' (AFS) issued by MoCA in October 2014. This Policy shall create an off Airport Common User facility equipped with fixed installations of minimum requirements and offering services for handling International Air Cargo in the form of Air Freight Stations with a mandate to enable the Cargo Industry as follows:

- Off-Airport common user facility equipped with fixed installations of minimum requirements and offering services for handling and temporary storage of import/ export goods, loaded and empty Unit Load Devices (ULD) and Cargo in bulk/ loose for outright export.
- Create an enabling environment for promoting International Air Cargo operations by reaching out to hinterland regions of the Country besides de-congesting the congested Air Cargo terminals in some gateway International Airports that face high dwell time.
- Authorizing some of the Inland Container Depots (ICD) to cater to the International Air Cargo operations, the existing facilities in these ICDs could be fully utilized.

14.2.7 The Authority notes that the above Policy Guidelines on AFS has larger national intent and it aims to strengthen and develop air cargo logistics in the Country and the same is expected to reduce the bottlenecks in air cargo logistics and help in ease of doing business, particularly for exporters.

14.2.8 The Authority directs TKIAL to submit a separate tariff rate in case the cargo is received from the approved AFS and factor it in the Tariff Rate Card.

14.2.9 The Authority also seeks comments from the stakeholders on application of tariff on AFS Cargo, as the Authority feels that the tariff on AFS Cargo should be significantly lesser than the tariff levied on the General Cargo.

14.2.10 After considering the above, the Authority proposes the following ARR and YPP:

Table 199: ARR proposed to be considered by the Authority for the Third Control Period

(Rs. in crores)

Particulars	Ref.	FY23	FY24	FY25	FY26	FY27	Total
Average RAB (A)	Table 147	458.25	474.07	558.41	1,035.13	1,481.62	
Fair Rate of Return (B)	Table 151	12.21%	12.21%	12.21%	12.21%	12.21%	
Return on Avg. RAB (C=A*B)		55.95	57.88	68.18	126.39	180.91	**489.31**
O&M expenses incl. working capital interest & finance charges (D)	Table 187	175.97	196.12	237.01	283.65	342.39	**1,235.14**
Depreciation (E)	Table 144	30.74	32.50	38.82	58.83	77.13	**238.02**
Tax (F)	Table 196	-	-	-	-	6.90	**6.90**
ARR (G=C+D+E+F)		**262.67**	**286.50**	**344.00**	**468.87**	**607.32**	**1,969.37**
PV of Under-recovery of AAI as on 31st March 2023 (H)*	Table 58	789.29	-	-	-	-	**789.29**
PV of Under-recovery of TKIAL as on 31st March 2023 (I)	Table 80	54.60	-	-	-	-	**54.60**
Total ARR (J=G+H+I)		**1,106.56**	**286.50**	**344.00**	**468.87**	**607.32**	**2,813.26**
NAR (K)	Table 194	20.50	87.11	90.42	93.86	103.28	**395.18**
30% NAR (L=30%*K)		6.15	26.13	27.13	28.16	30.98	**118.55**
Net ARR (M=J-L)		**1,100.41**	**260.37**	**316.88**	**440.72**	**576.33**	**2,694.71**
Discount Factor @12.21% (N)		1.00	0.89	0.79	0.71	0.63	
PV of ARR as on 31st March 2023 (O=M*N)		**1,100.41**	**232.04**	**251.67**	**311.94**	**363.54**	**2,259.59**
Sum of PV of ARR (P)		**2,259.59**					
Total passenger traffic (MPPA) (Q)	Table 90	24.70					
Yield per passenger (YPP) (Rs.) (R=P/Q)		**914.76**					
Total departing passenger traffic (MPPA) (S)	Table 90	12.35					
Yield per departing passenger (Rs.) (T=P/S)		**1,829.51**					

14.2.11 The Authority notes that, it is necessary to have the individual year wise tariff card laying down the different aeronautical charges and the workings for the aeronautical revenues, to have a constructive stakeholder discussion and hence TKIAL is directed to submit the detailed Annual Tariff proposals in line with the ARR and Yield arrived at by the Authority within 7 days of issue of the Consultation Paper.

14.3 Authority's proposals regarding Aggregate Revenue Requirement (ARR) for the Third Control Period

Based on the material before it and based on its analysis, the Authority proposes the following with regard to ARR for the Third Control Period:

14.3.1 To consider the ARR and YPP for the Third Control Period for TRV in accordance with Table 199.

14.3.2 To direct TKIAL to submit the Annual Tariff Proposal (Tariff Rate Card) within 7 days from issue of this Consultation Paper which will be put up for stakeholders' consultation.

15 SUMMARY OF AUTHORITY'S PROPOSALS PUT FORTH FOR STAKEHOLDER CONSULTATIONS

Chapter 4: True Up of AAI for the Second Control Period and Pre-COD Period

4.16.1 To consider the Passenger traffic and ATM as detailed in para 4.4.8 (Table 10) for true up of the Second Control Period and Pre-COD Period.

4.16.2 To consider capital additions and aeronautical allocation of assets as detailed in Table 23

4.16.3 To recompute Depreciation considering the revised allocation of assets as detailed in para 4.6.6 (Table 28) for true up of AAI for the Second Control Period and Pre-COD Period.

4.16.4 To consider RAB for AAI as detailed in para 4.7.1 (Table 29) for true up of the Second Control Period and Pre-COD Period.

4.16.5 To consider Deemed Initial RAB for TRV as detailed in para 4.7.5 (Table 30).

4.16.6 To consider FRoR as detailed in para 4.8.10 for true up of the Second Control Period and Pre-COD Period.

4.16.7 To not consider return on the cost of land for true up of the Second Control Period and Pre-COD Period.

4.16.8 To consider O&M expenses and their allocation as suggested by the study on efficient O&M expenses for TRV (summary of the Study is provided in Annexure 2 and the study is attached as Appendix 2) and as detailed in para 4.9.20 (Table 44) for true up of Second Control Period and Pre-COD Period.

4.16.9 To consider Non-aeronautical Revenue as detailed in para 4.11.10 (Table 50) for true up of the Second Control Period and Pre-COD Period.

4.16.10 To consider Aeronautical Revenue as detailed in para 4.12.7 (Table 54) for true up of the Second Control Period and Pre-COD Period.

4.16.11 To consider Aeronautical Tax as detailed in para 4.13.5 (Table 57) for true up of the Second Control Period and Pre-COD Period.

4.16.12 To consider the present value of under-recovery of Rs. 789.29 crores (as on 31st March 2023) for true up of AAI for the Second Control Period and Pre-COD period as per Table 58 and readjust the same in the ARR for the Third Control Period.

Chapter 5: True Up of TKIAL for the Second Control Period from COD Till 31st March 2022

5.12.1 To consider RAB and depreciation for the period from COD till 31st March 2022 as per Table 65

5.12.2 To consider FRoR for the period from COD till 31st March 2022 as per Table 66.

5.12.3 To consider O&M expenses for the period from COD till 31st March 2022 as per Table 72.

5.12.4 To consider Non-Aeronautical Revenue for the period from COD till 31st March 2022 as per Table 76.

5.12.5 To consider Aeronautical revenue for the period from COD till 31st March 2022 as per Table 78

5.12.6 To consider under recovery of Rs. 54.60 crores for True-up of TKIAL as per Table 80 for the period from COD till 31st March 2022 and readjust the same in the ARR for the Third Control Period.

Chapter 6: Traffic for the Third Control Period

6.3.1 To consider the Passenger traffic, ATM and Cargo traffic for the Third Control Period for TRV as per Table 90.

6.3.2 To true up the traffic volume (Passengers, ATM and Cargo) based on actual traffic in the Third Control Period while determining tariffs for the Fourth Control Period.

Chapter 7: Capital Expenditure (CAPEX), Depreciation and Regulatory Asset Base (RAB) for the Third Control Period

7.7.1 To consider the Terminal Building ratio of 90%:10% in line with the Study on Allocation of Assets, IMG norms and as approved for other similar Airports.

7.7.2 To allow IDC during the Third Control Period and not to allow Financing Allowance as mentioned in para 7.3.147.

7.7.3 To adopt the capitalization of Aeronautical Expenditure for the Third Control Period in accordance with Table 139.

7.7.4 To true up the Aeronautical Capital expenditure based on actuals, cost efficiency and reasonableness, at the time of determination of tariff for Fourth Control Period.

7.7.5 To reduce (adjust) 1% of the uncapitalized project cost from the ARR in case any particular capital project is not completed/ capitalized as per the approved capitalization schedule, as mentioned in para 7.3.144. The same will be examined during the true up of the Third Control Period, at the time of determination of tariff for the Fourth Control Period.

7.7.6 To consider GST on RAB/CWIP and Stamp Duty on actual incurrence basis, as detailed in para 7.3.150 and 7.3.149 respectively.

7.7.7 To examine the accounting of input tax credits in accordance with Chapter V of The Central Goods and Services Tax Act, 2017 and make necessary adjustments at the time of determination of tariffs for the Fourth Control Period (as explained in para 7.3.150).

7.7.8 To adopt Aeronautical Depreciation as per Table 144 for the Third Control Period.

7.7.9 To true up the Depreciation of the Third Control period based on the actual asset additions and actual date of capitalization during the tariff determination of the Fourth Control Period.

7.7.10 To consider average RAB for the Third Control Period for TRV as per Table 147.

7.7.11 To true up the RAB based on actuals at the time of tariff determination for the Fourth Control period.

Chapter 8: Fair Rate of Return for the Third Control Period

8.3.1 To consider the Cost of equity at 15.18%.

8.3.2 To consider the notional debt to equity (gearing) ratio of 48:52 in line with target gearing ratio being considered in case of other PPP airports.

8.3.3 To consider cost of debt of 9% for the Third Control Period,

8.3.4 To consider FRoR of 12.21% for the Third Control Period based on above mentioned Cost of equity, Cost of debt and gearing ratio.

Chapter 9: Inflation for the Third Control Period

9.3.1 To consider the inflation rate proposed in Table 153.

Chapter 10: Operation and Maintenance Expenses for the Third Control Period

10.3.1 To consider O&M Expenses for the Third Control Period as per Table 187.

10.3.2 To consider the O&M expenses incurred by TKIAL during the Third Control Period subject to reasonableness and efficiency, at the time of tariff determination for the next Control Period.

Chapter 11: Non-Aeronautical Revenue for the Third Control Period

11.3.1 To consider Non-Aeronautical Revenues for the Third Control Period for TRV as per Table 194.

11.3.2 Non-Aeronautical Revenue will not be trued up at the time of tariff determination of next control period if it is lower than that proposed by the Authority in Table 194.

Chapter 12: Taxation for the Third Control Period

12.3.1 To consider the Taxation for the Third Control Period for TRV as per Table 196.

12.3.2 To true up the aeronautical tax amount appropriately taking into consideration all relevant factors at the time of tariff determination for the Fourth Control Period.

Chapter 13: Quality of Service for the Third Control Period

13.3.1 Not to consider any adjustment towards tariff determination for the Third Control Period with regard to Quality of Service of TRV.

13.3.2 TKIAL should ensure that service quality at TRV conforms to the performance standards as indicated in the Concession Agreement throughout the Third Control Period.

Chapter 14: Aggregate Revenue Requirement (ARR) for the Third Control Period

14.3.1 To consider the ARR and YPP for the Third Control Period for TRV in accordance with Table 199.

14.3.2 To direct TKIAL to submit the Annual Tariff Proposal (Tariff Rate Card) within 7 days from issue of this Consultation Paper which will be put up for stakeholders' consultation.

16 STAKEHOLDER CONSULTATION TIMELINE

16.1.1 In accordance with the provision of Section 13(4) of the AERA Act, 2008, the proposals contained in the Chapter 15 – Summary of the Authority's proposals read with the relevant discussion in the other chapters of the Paper is hereby put forth for Stakeholders' Consultation.

16.1.2 For removal of doubts, it is clarified and explained that the contents of this Consultation Paper may not be construed as any Order or Direction by the Authority. The Authority shall pass an order in the matter only after considering the submissions of the stakeholders in response hereto and by making such decisions fully documented and explained in terms of the provisions of the Act.

16.1.3 The Authority welcomes written evidence-based feedback, comments and suggestions from stakeholders on the proposals made in this Consultation Paper, latest by 13th March 2024.

Secretary
Airports Economic Regulatory Authority of India
AERA Building, Administrative Complex,
Safdarjung Airport, New Delhi- 110003
Tel: 011-24695043; Fax: 011-24695039

(Chairperson)

17 ANNEXURES

17.1 Annexure 1: Summary of Study on Allocation of Assets between Aeronautical and Non-Aeronautical Assets

17.1.1 Objective

- The objective of the Study is to determine a basis for appropriate segregation of assets between Aeronautical, Non-aeronautical and Common assets as per the provisions of the AERA Act and the Concession Agreement entered into between AAI and TKIAL. The Common assets have been further segregated between Aeronautical and Non-aeronautical assets based on Terminal Building ratio, Employee Head Count ratio or Staff Quarters ratio, as appropriate.
- The Estimated Deemed Initial RAB as on 31st March 2018, as per the Concession Agreement between AAI and TKIAL was Rs. 424 crores.

17.1.2 Analysis of assets capitalized by AAI in SCP (till COD)

- The Opening RAB for FY 2016-17 of the SCP was examined as per the Study and adjusted with Rs. 12.48 crores of left out assets (refer Annexure 1 of the "*Study on allocation of Assets between Aeronautical and Non-Aeronautical Assets for TRV, Thiruvananthapuram"*) which were not considered by AERA at the time of SCP order as mentioned in para 4.2 of the Study

  "4.2.2 For true-up, AAI has considered a slightly different value for Opening RAB for FY 2016-17 from what was approved by AERA in the Tariff Order for TRV for the Second Control Period. The opening RAB submitted by AAI as part of the true up proposal submission is Rs. 357.01 crores. On seeking clarification, AAI has given the following justification for the difference of Rs. 12.48 crores – "the reason for variation is that certain assets were inadvertently excluded during the tariff finalization process for the Second Control Period. However, these assets were subsequently identified and included when transferring them to TKIAL. Consequently, these assets have been duly considered and accounted for in the Opening RAB for the Second Control Period."

- AAI, at the time of SCP Order, was unable to provide information regarding these assets. However, AAI shared the information during the true-up submission. The Study carefully verified each asset that had been excluded and reconciled them with the Joint Asset Reconciliation Statement, which was jointly prepared by AAI and TKIAL after conducting a physical verification. As a result of this verification process, it was confirmed that these assets were actually present at TRV, leading to their inclusion in the Opening RAB of AAI.
- Financing Allowance claimed by AAI as mentioned in para 4.3.4 not allowed as per the Study.

  *"4.3.4 **Financing Allowance**: It was observed that in Table 5, the RAB included Financing Allowance of Rs. 10.05 crores as additions to the SCP. It was noted that AAI in the SCP has not disclosed any borrowings in the True up submission. Therefore, considering the nature of airport as brown field and the detailed explanation provided in this regard in para 6.4.2, the Study proposes not to allow financing allowance as additions for the determination of RAB"*

- Adjustments of provision of accounting standards (para 4.3.5), inclusion of interest during construction (para 4.3.6) and inclusion of the left-out assets (refer para 4.3.7) as per the Study has decreased aeronautical Gross Block by Rs. 1.82 crores.

*"4.3.5 **Financial Lease Assets (Accounting treatment Adjustment):***
• Upon detailed review of the assets, it was observed that assets worth Rs. 3.10 crores were acquired under a contract to operate the X-ray Baggage Inspection Systems (XBIS) using a Build-Operate-Transfer (BOT) model. According to this contract, AAI leased the XBIS system for a period of 6 years, with an annual lease payment of Rs. 0.65 crores. Initially, AAI treated this lease as an operating lease, recording the lease payment as part of its O&M expenses until FY 2018-19. Study on Allocation of Assets between Aeronautical and Non-Aeronautical Assets for TRV, Thiruvananthapuram
• However, in FY 2019-20, due to the implementation of accounting standard on leases, AAI reclassified the lease from an operating lease to a "Financial Lease." Consequently, the asset value of Rs. 3.10 crores were included as additions to the Regulated Asset Base (RAB).
• Nevertheless, this change in accounting treatment does not accurately reflect the true RAB for tariff determination under the AERA Act, 2008. Therefore, the Study suggests that these assets should not be considered as part of the RAB additions but rather as an expense."

*"4.3.6 **Interest on Capital Expenditure during Construction**: The Study upon detailed review of MYTP submission by AAI, noted that interest on Capital expenditure has been included in Operating and Maintenance expenses for the SCP. It was explained by AAI that the interest is associated with a loan obtained from AXIS Bank in FY 2020-21 at the headquarters level. This interest has been allocated to the station (TRV) based on the portion of the loan utilized for acquiring capital assets. According to the Study and Direction 5 of AERA, interest on Capex represents the financing cost incurred in acquiring capital assets. Therefore, this cost should be capitalized and considered as part of RAB in order to claim a return on investment. Hence, the cost has been considered as a part of capital additions commissioned and acquired through debt in FY 2020-21 and Pre COD period."*

*"4.3.7 **Left out Assets**: Further to the submission in the MYTP, AAI has informed vide email dated 17th November 2023 that it had inadvertently left out two assets amounting to Rs. 1.12 crores and capitalized in FY 2017-18, while submitting the proposal for true up of RAB as on COD. These relate to assets which were constructed by or were available with Kerala State Industrial Enterprises Limited (KSIE) that were transferred/handed over to AAI. AAI has also informed that these were later transferred to TKIAL along with other assets on COD. Hence the cost related to these assets has been considered as a part of RAB additions."*

- The classification of individual assets capitalized by AAI in the Second Control Period and Pre-COD period into Aeronautical, Non-aeronautical, ANS and Common, was examined and wherever necessary, assets were reclassified based on the information available in the FAR and the methodology detailed in Chapter 3 of the Study and were further allocated based on Terminal Building Ratio, Employee Head Count Ratio and Staff Quarters Ratio as per para 4.4.4, Table 14 and Table 15 respectively of the Study. The decrease in additions to aeronautical Gross Block due to such reclassifications is 2.84 crores.
- The reclassification, change in useful life and exclusion of assets also had an impact on the aeronautical depreciation for the Second Control Period and Pre-COD period. Therefore, the depreciation was recomputed considering the changes made to the aeronautical Gross Block. This re-computation has led to a reduction of Rs. 1.11 crores across the SCP and the Pre-COD period.
- Post adjustments, the RAB as on COD for AAI was determined to be Rs. 491.23 crores as compared to AAI's submission of Rs. 503.87 crores.

17.1.3 Analysis of transfer of assets from AAI to TKIAL as on COD

- The net value of aeronautical assets (including ANS assets) transferred from AAI to TKIAL as per the Joint Asset Reconciliation Statement submitted by AAI & TKIAL is Rs. 486.26 crores.
- As a result of the adjustments, reclassification, the revision in the Terminal Area Ratio and Employee Head Count Ratio and the resultant changes in depreciation, the Study determined the Initial RAB to be Rs. 483.77 crores as against the Initial RAB of Rs. 486.26 crores submitted by TKIAL.

17.1.4 Analysis of assets capitalized by TKIAL in post-COD

- The assets capitalized by TKIAL post COD were examined and classified into Aeronautical, Common and Non-aeronautical, based on the information in the FAR and the following laid out principles:

*"**3.2.1** As part of this Study, various asset categories have been reviewed and a basis has been developed for the classification of assets into Aeronautical, Non-aeronautical, ANS and Common.*

***3.2.2** Assets which are directly used for rendering of aeronautical services defined under section 2 (a) of the AERA Act of 2008 are classified as Aeronautical Assets. As per Section 2 (a) of the Act, "aeronautical service" means any service provided for:*
i. navigation, surveillance and supportive communication thereto for air traffic management,
ii. the landing, housing or parking of an aircraft or any other ground facility offered in connection with aircraft operations at an airport,
iii. ground safety services at an airport,
iv. ground handling services relating to aircraft, passengers and cargo at an airport,
v. the cargo facility at an airport,
vi. supplying fuel to the aircraft at an airport, vii. services for a stakeholder at an airport, for which the charges, in the opinion of the Central Government for the reasons to be recorded in writing, may be determined by the Authority.
***3.2.3** TKIAL commenced the operations at TRV from 14th October 2021 (COD). In the context of the Control Period and true-up process, it is essential to highlight that the COD of TRV, which took place in FY 2021-22, falls outside the control period of 5 years of the Second Control Period for true up purposes. However, in Public Notice No. 05/2022-23, issued on 20th June 2022, AERA made a decision to consider the true-up for the period from 1st April 2021 to 31st March 2022, during the determination of tariffs for the upcoming Third Control Period.*
***3.2.4** Therefore, in the Study, it is necessary to examine the asset allocation followed by both AAI (until COD) as well that followed by TKIAL (post COD). The criteria explained in Para 3.1 above would also be applicable for the assets capitalized by TKIAL. The same can be inferred from Clause 1.1 of the Concession Agreement signed between AAI and TKIAL. The relevant sections of the clause are as follows:*
• "Aeronautical Assets" means the assets which are necessary or required for the performance of Aeronautical Services at the Airport and shall include such other assets as the Concessionaire may procure from time to time, in accordance with the provisions of this Agreement, for or in relation to performance of Aeronautical Services, and does not include Non-Aeronautical Assets.
• "Aeronautical Services" has the meaning as set forth in the AERA Act."

- Further allocated by considering the Terminal Building ratio of 90%:10% and Employee Head Count Ratio of 98.19%: 1.81%. As a result, there was a reduction of Rs. 0.33 crores in the aeronautical capital additions post COD.
- TKIAL had also considered a Financing Allowance of Rs. 0.14 crores under the capital additions submitted by them. The Study has proposed to exclude this amount of Rs. 0.14 crores from the aeronautical capital additions post COD based on the rationale shared in para 6.4.2

  "6.4.2 Review of TKIAL's claim as well as the justification provided for the same in detail and the Study's views on the same are as shown below:

  • Providing return on capital expenditure from the very beginning of construction will significantly lower the risks for an airport operator and may require revisiting the return on equity allowed to airport operators as the investment in the asset class will then be equated to risk free rate of return.

  • Further, provision of Financing Allowance will disincentivize the Airport Operators from ensuring timely completion of projects and delivery of services to the users. Therefore, a return should be provided only when the assets are made available to the airport users except in the case of certain costs like IDC that will have to be incurred if debt is used for funding projects.

  • Furthermore, the future returns from the project should generate adequate returns to cover the cost of equity during the construction stage. The airport operator is adequately compensated for the risks associated with the equity investments in a construction project once the project is capitalized by means of a reasonable cost of equity.

  • Developments at greenfield airports inherently take longer durations to commission and operationalize. Thus, airport operators would have to wait for a considerable duration before getting returns on large capital projects. Keeping this in view, financing allowance was provisioned in the initial stages to such airports. It may be further noted that financing allowance was never provided in the case of brownfield airports like MIAL, DIAL and other AAI airports. Further, financing allowance for greenfield airports of BIAL, HIAL, CIAL etc. was allowed only for the initial stages of their development, after which IDC was permitted on the debt portion of the proposed capital expenditure.

  • It is pertinent to note that in case of a greenfield airport, investment in regulatory blocks by the Airport Operator would not make the airport facilities available to the passengers. Brownfield and Greenfield airports can't be equated on this issue. In greenfield airports, the tariff is not applicable, and no revenue is available to the Airport Operator till the aeronautical services have been created and put to use. However, in the case of brownfield airports, where the AO brings in additional investments, the airport facilities are mobilized and enabled to other functional parts of the airport, which remains functional, and the AO keeps on enjoying the charges from the users. In the case of TRV, the Airport ought to be considered as a brownfield airport, which would not be eligible for an allowance on equity portion of newly funded capital projects.

  • Financing Allowance is a notional allowance and different from interest during construction. Therefore, the provision of Financing Allowance on the entire capital work in progress would lead to a difference between the projected capitalization and actual cost incurred, especially when the Airport Operator funds the projects through a mix of equity and debt."

- The asset adjustments also have an impact on depreciation. Further, it was observed that the useful lives considered by TKIAL for certain assets were not in line with AERA Order No. 35/2017-18 dated 12th January 2018. The Study recomputed the depreciation for Post COD period after revising the useful life of assets wherever necessary.
- Accordingly, the RAB for TKIAL as on 31st March 2022 was determined to be Rs. 457.94 crores.

17.1.5 Conclusion

- The revised RAB (Net block of assets) as on 14th October 2021 and 31st March 2022, after the above adjustments and reclassifications are summarized in the table below:

Table 200: Summary of adjustments to RAB as on 14th October 2021 and 31st March 2022

(Rs. in crores)

Particulars	Ref.	Ref.*	Amount
RAB as on 13th October 2021, submitted by AAI	**A**	Table 5	**503.87**
Less: Financing allowance	**B**	Table 5	9.08
Adjustments and Reclassification proposed as per the Study report			
Less: Financial Lease net block as on 13th October 2021	**C**	Table 11	3.10
Add: IDC net block as on 13th October 2021	**D**	Table 11	0.16
Add: Left out assets	**E**	Table 11	1.12
Less: Reclassification of assets	**F**	Table 17	2.84
Add: Adjustments as per the Study due to reclassification/revision of depreciation	**G**	Table 22	1.11
Adjusted RAB as on 13th October 2021 for AAI	**H = A-B-C+D+E-F+G**		**491.23**
Less: Assets retained by AAI	I	Annexure 4	8.00
Add: Buildings for navigational aids/ radar installations reclassified	J		0.54
Adjusted RAB as on 13th October 2021 transferred by AAI to TKIAL	**K = H-I+J**		**483.77**
Add: Other additions to RAB by Airport Operator during the period from COD till 31st March 2022 as per the Study report	L	Table 28	4.00
Less: Depreciation for the period from COD up to 31st March 2022 as per the Study report	M	Table 33	29.83
Revised adjusted RAB as on 31st March 2022 for TKIAL	**N = K+L-M**		**457.94**

**Refers to Tables and Annexures of the Study on Allocation of Assets between Aeronautical and Non-Aeronautical Assets*

- Based on the adjustments, reclassification, reallocation and recomputed depreciation, the Regulatory Asset Base for the Second Control Period & FY 2021-22 for TRV was determined as per the Study as follows:

Table 201: RAB for SCP & FY 2021-22 as determined as per the current Study for AAI & TKIAL

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total	Pre-COD	Total	Post COD	Total
Submission by	**AAI**								**TKIAL**	
Opening RAB	357.01	454.87	437.76	450.07	485.12		507.88		486.26	
Addition	130.36	16.52	50.09	76.63	71.28	**344.88**	19.01	**363.88**	4.47	**368.35**
Depreciation	29.49	33.63	37.64	40.09	43.39	**184.24**	23.01	**207.26**	48.71	**255.96**
Sales/Disposals/Transfers	3.01	-	0.14	1.48	5.14	**9.77**	-	**9.77**	-	**9.77**
Closing RAB	**454.87**	**437.76**	**450.07**	**485.12**	**507.88**		**503.87**		**442.02**	
Average RAB	**405.94**	**446.31**	**443.91**	**467.59**	**496.50**		**505.87**		**464.14**	
Revised as per Study	**AAI**								**TKIAL**	
Opening RAB	357.01	452.25	435.68	447.52	476.74		496.28		483.77	
Addition	127.71	16.95	49.41	70.26	67.37	**331.69**	17.48	**349.17**	4.00	**353.17**
Depreciation	29.46	33.52	37.43	39.56	42.69	**182.65**	22.53	**205.19**	29.83	**235.02**

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total	Pre-COD	Total	Post COD	Total
Sales/Disposals/Transfers	3.01	-	0.14	1.48	5.14	**9.77**	-	**9.77**	-	**9.77**
Closing RAB	**452.25**	**435.68**	**447.52**	**476.74**	**496.28**		**491.23**		**457.94**	
Average RAB	**404.63**	**443.96**	**441.60**	**462.13**	**486.51**		**493.75**		**470.86**	

- Based on this Study, the aeronautical capital addition for the Second Control Period, Pre and Post COD Period is Rs. 353.17 crores (Rs. 349.17 crores by AAI until COD and Rs. 4.00 crores by TKIAL post COD). There has been a total reduction of Rs. 15.18 crores in the aeronautical additions as against the submissions of AAI and TKIAL. The Initial RAB as on COD was determined as per the Study to be Rs. 483.77 crores.

17.2 Annexure 2: Summary of Study on Efficient Operation and Maintenance expenses

17.2.1 **Assessment of O&M Expenses and its allocation submitted by AAI and as per the current Study for SCP & Pre-COD Period**

Allocation Ratios

- The allocations ratios submitted by AAI and recomputed as per the Study are as follows:

Table 202: Allocation Ratios submitted by AAI and recomputed as per the current Study for the SCP & Pre-COD Period

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Pre-COD Period
Submitted by AAI						
Employee Ratio (Aero : Non-Aero : ANS)	74.50% : 1.20% : 24.30%	72.31% : 1.24% : 26.45%	71.37% : 1.45% : 27.18%	70.21% : 1.06% : 28.72%	70.07% : 1.11% : 28.82%	68.02% : 1.19% : 30.79%
Employee Ratio (Aero : Non-Aero)	98.41% : 1.59%	98.31% : 1.69%	98.01% : 1.99%	98.51% : 1.49%	98.44% : 1.56%	98.28% : 1.72%
Terminal Building Ratio (Aero : Non-Aero)	92.34% : 7.66%	92.12% : 7.88%	92.21% : 7.79%	92.19% : 7.81%	93.29% : 6.71%	91.59%: 8.41%
Electricity Ratio (Aero : Non-Aero : ANS)	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%
Recomputed as per the Study						
Employee Ratio (Aero : Non-Aero : ANS)	71.71% : 3.99% : 24.3%	69.23% : 4.32% : 26.45%	68.47% : 4.35% : 27.18%	66.9% : 4.38% : 28.72%	66.75% : 4.43% : 28.82%	64.02% : 5.19% : 30.79%
Employee Ratio (Aero : Non-Aero)	94.73% : 5.27%	94.12% : 5.88%	94.02% : 5.98%	93.86% : 6.14%	93.78% : 6.22%	92.5%: 7.5%
Terminal Building Ratio (Aero : Non-Aero)	90% : 10%	90% : 10%	90% : 10%	90% : 10%	90% : 10%	90% : 10%
Electricity Ratio (Aero : Non-Aero : ANS)	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%	80.44% : 0.01% : 19.55%
Gross Block Ratio (Aero : Non-Aero : ANS)	91.82% : 2.95% : 5.23%	91.68% : 2.93% : 5.39%	91.62% : 2.79% : 5.59%	91.89% : 2.60% : 5.51%	92.17% : 2.46% : 5.37%	92.29% : 2.42% : 5.29%

17.2.2 **Summary of Head wise assessment of O&M expenses submitted by AAI for SCP as per the current Study**

17.2.2.1 **Employee Benefit Expense**

17.2.2.1.1 According to the Reasonableness assessment and trend analysis detailed in paras 3.4.3 and 3.4.4, it was noted that employee expenses witnessed an increase in FY 2017-18 and FY 2018-19. This rise can be attributed to pay revisions and provisions made for retirement benefit costs. Furthermore, the implementation of a three-year pension plan, covering the period from January 2017 to March 2019, also contributed to the rise in employee costs. Upon comparison with the approved figures of SCP and FCP actuals, the analysis of employee benefit expenses appears to be reasonable.

17.2.2.1.2 Due to revision in the allocation ratio as per the Study, the Aeronautical employee benefit expenses submitted by AAI for SCP were rationalized to Rs. 316.17 crores as per Table 17.

17.2.2.2 **Administration and General (A&G) Expense**

17.2.2.2.1 In the assessment, it was observed that the Administration and General (A&G) expenses for the SCP submitted by AAI were higher than the approved figure mentioned in the SCP order. On detailed analysis, it was observed that major reasons for the increase was interest and penalties payments and inconsistencies such as treating ANS expenses as aeronautical expense. These have been adjusted appropriately. Also, the Study has made adjustment of accounting treatment recorded by AAI for payment of lease by treating it as financial lease.

17.2.2.2.2 After adjustments, the A&G expenses seem to reasonable as compared to SCP Order approved amount.

17.2.2.2.3 A&G expenses were adjusted, reclassified and reallocated based on principle set in para 3.3.1. Due to such revision, the Aeronautical A&G expenses submitted by AAI for SCP were rationalized to Rs. 11.96 crores as per Table 24.

17.2.2.3 **CHQ/RHQ Expense**

17.2.2.3.1 In para 3.4.11, it was noted that the CHQ & RHQ expense reported by AAI for the SCP were significantly higher than the approved amount specified in the SCP order. A comprehensive analysis was carried out as per the Study to examine and justify these expenses. As a result, the CHQ & RHQ expenses were rationalized and reallocated. Through this revision, the aeronautical CHQ & RHQ expense submitted by AAI for the SCP has been rationalized to its optimum level and allowed it to the tune of Rs. 133.72 crores (Table 27).

17.2.2.4 **Repairs and Maintenance (R&M) Expense**

17.2.2.4.1 In para 3.4.15.4, it was observed that R&M Expenses for SCP submitted by AAI was in the range that was approved in the SCP order. Upon detailed analysis, it was determined that the expenses incurred by AAI were reasonable when compared to the approved figure in the SCP order and the actual FCP expenses.

17.2.2.4.2 The Study has made adjustment in R&M expenses by re-categorizing Inline Baggage Manpower cost to Utilities & Outsourcing expenses head and R&M-BOT XBIS lease to A&G expense head (refer para 3.4.7.1(8) (1)).

17.2.2.4.3 However, from an external benchmarking perspective, the R&M Expenses of AAI appear to be on par with the expenses incurred by other comparable airports (external benchmarking is detailed in para 5.5).

17.2.2.4.4 By comparing the R&M expenses to the Opening RAB, it is concluded that the expenses incurred are within reasonable limits i.e., 6% of the Opening RAB (benchmark set by the Authority for most of the airports).

17.2.2.4.5 After considering adjustments, R&M Expenses were reclassified and reallocated based on principle set in 3.3.1. Due to such revision, the Aeronautical R&M Expenses submitted by AAI for SCP was rationalized to Rs. 59.89 crores as per Table 32.

17.2.2.5 **Utility and Outsourcing Expense**

17.2.2.5.1 In para 3.4.19, it was observed that Utility and Outsourcing Expenses for SCP submitted by AAI was higher than the approved figure in the SCP order. On detailed analysis, it was observed that expenses incurred by AAI were necessary to spend and thus appears to be reasonable as compared to approved figure in the SCP Order and FCP actuals.

17.2.2.5.2 As per para 3.4.19.3, manpower cost for AAICLAS amounting to Rs.0.36 crores have been proposed to be excluded from the aeronautical expense.

17.2.2.5.3 As per para 3.4.19.6 of the Study, Inline Baggage Manpower cost has been reclassified from R&M expense to Utilities & Outsourcing expenses in line with the hiring of manpower.

17.2.2.5.4 From an external benchmarking perspective, the Utility and Outsourcing Expenses of AAI appear to be on par with the expenses incurred by other comparable airports (external benchmarking is detailed in para 5.7).

17.2.2.5.5 After considering the adjustments, the Utility and Outsourcing Expenses were reclassified and reallocated based on principle set in para 3.3.1. Due to such revision, the Aeronautical Utility and Outsourcing Expenses submitted by AAI for SCP was rationalized to Rs. 83.56 crores as per Table 36.

17.2.2.6 **Other Outflow**

17.2.2.6.1 The category of Other Outflows includes collection charges paid to airlines and IATA for UDF and PSF. The expenses incurred for SCP exceeded the approved figures in the SCP Order because the collection charges paid to IATA were not initially considered in the projections. However, these expenses were necessary for the collection of aeronautical revenue and were based on actual figures. Therefore, they are deemed reasonable and directly related to the collection of aeronautical revenues, eliminating the need for reclassification.

17.2.2.7 **Aeronautical O&M Expenses as per the current Study for SCP**

17.2.2.7.1 Based on the analysis of the submission by AAI for SCP, the aeronautical O&M expenses of AAI as per the Study for SCP was determined to be Rs. 615.98 crores after taking into account the adjustments (Table 39), re-classification (Table 40) and re-allocation (Table 41). The break-up of O&M expenses is given below:

Table 203: Aeronautical O&M Expenses for AAI as per the current Study for SCP

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Employee Benefit Expenses	48.15	59.73	73.80	77.33	57.16	**316.17**
A&G Expenses	1.21	2.05	2.98	3.35	2.37	**11.96**
CHQ & RHQ Expenses	14.67	17.96	30.70	43.63	26.76	**133.72**
R&M Expense	11.83	11.11	11.86	11.86	13.23	**59.89**
Utility & Outsourcing Expenses	13.47	16.36	16.16	18.73	18.83	**83.56**
Other Outflows	1.53	2.64	3.01	3.06	0.45	**10.68**
Total Operating Expenditure (A)	**90.87**	**109.84**	**138.51**	**157.97**	**118.80**	**615.98**

17.2.3 **Summary of Head wise assessment of O&M expenses submitted by AAI for Pre-COD Period as per the current Study**

17.2.3.1 The Pre COD period for AAI starts from 1st April 2021 to 13th October 2021. On and after the COD, which is 14th October 2021, the TRV operations were undertaken and managed by the concessionaire, TKIAL. To reconcile the expenses incurred during the Pre COD period, which fall outside the scope of the SCP, the Study has proposed an approach. The proposed approach involves extrapolating the approved figures of FY 2020-21 from the SCP order to the Pre-COD period. This extrapolation is based on the growth rate utilized for projecting expenses in the SCP order for FY 2020-21. By employing this methodology, the Study ensures a meaningful comparison and analysis of the O&M expenses during the Pre COD period with the benchmark set in the SCP order.

Following this approach, the O&M expenses submitted by AAI for the Pre COD period have been assessed, and the results for each category of O&M expense are provided below:

17.2.3.2 **Employee Benefit Expense**

17.2.3.2.1 Based on the Reasonableness assessment carried out for Employee Benefit Expense, it was observed that employee expenses for the Pre COD period seem to be reasonable.

17.2.3.2.2 Due to revision in the allocation ratio as per the Study, the Aeronautical employee benefit expenses submitted by AAI for Pre-COD Period were reduced by Rs. 1.99 crores.

17.2.3.3 **Administration and General (A&G) Expense**

17.2.3.3.1 It was observed that A&G expenses for the Pre-COD period submitted by AAI were lower than the estimated figure. On detailed analysis, it was observed that major reasons for decrease was reversals booked under the head Prior Period Expenses that has been considered as per the Study to reduce expenses that were overbooked or incorrectly recognized in previous periods. The Study has made adjustment of lease accounting provisions recorded by AAI for payment of lease by treating it as financial lease.

17.2.3.3.2 After adjustments, the A&G expenses seem to be reasonable as compared to the estimated amount.

17.2.3.3.3 A&G expenses were adjusted, reclassified and reallocated based on principle set in para 3.3.1. Due to such revision, the Aeronautical A&G expenses submitted by AAI for Pre-COD Period were increased by Rs. 0.03 crores (Rs. 0.04 crores as per Table 47 to Rs. 0.06 crores as per Table 51).

17.2.3.4 **CHQ/RHQ Expense**

17.2.3.4.1 It was observed that AAI reported higher CHQ & RHQ expenses for the Pre COD period compared to the estimated amount. The expense for the Pre COD period was calculated by applying a 5% growth rate to the actual expenses of FY 2020-21, as submitted by AAI, since the workings for CHQ & RHQ expenses for FY 2021-22 were not finalized.

17.2.3.4.2 Therefore, based on AAI's responses, the revised CHQ & RHQ expenses were calculated using the revised FY21 figures. Through this revision, the aeronautical CHQ & RHQ expenses submitted by AAI for the Pre COD period were reduced by Rs. 2.45 crores. This needs to be suitably reviewed based on actual information to be made available before the Order.

17.2.3.5 **Repairs and Maintenance (R&M) Expense**

17.2.3.5.1 In the Pre-COD Period, it was observed that R&M Expenses submitted by AAI were higher than the estimated figures. Upon detailed analysis, it was determined that the expenses incurred by AAI were necessary and reasonable.

17.2.3.5.2 By comparing the R&M expenses to the Opening RAB, it is concluded that the expenses incurred are within reasonable limits i.e., 6% of the Opening RAB (benchmark set by the Authority for most of the airports).

17.2.3.5.3 R&M Expenses for the Pre-COD Period were reclassified and reallocated based on principle set 3.3.1. Due to such revision, the Aeronautical R&M Expenses submitted by AAI were reduced by Rs. 0.03 crores.

17.2.3.6 **Utility and Outsourcing Expense**

17.2.3.6.1 It was observed that Utility and Outsourcing Expenses for the Pre-COD Period submitted by AAI were higher than the estimated figure. On detailed analysis, it was found that expenses incurred by AAI were necessary to spend and thus appear to be reasonable.

17.2.3.6.2 After adjustments, the Utility and Outsourcing Expenses were reclassified and reallocated based on principle set in 3.3.1. Due to such revision, the Aeronautical Utility and Outsourcing Expenses submitted by AAI for Pre COD were reduced by Rs. 0.13 crores.

17.2.3.7 Other Outflow

17.2.3.7.1 The category of Other Outflows includes collection charges paid to airlines and IATA for UDF and PSF. The expenses incurred for the Pre-COD Period exceeded the estimated figures because the collection charges paid to IATA were initially not considered in the projections. However, these expenses were necessary for the collection of aeronautical revenue and were based on actual figures. Therefore, they are deemed reasonable and directly related to the collection of aeronautical revenues, eliminating the need for reclassification.

17.2.3.8 Aeronautical O&M Expenses as per the current Study for Pre-COD Period

17.2.3.8.1 Based on the analysis of the submission of AAI for Pre-COD Period, the aeronautical O&M expenses of AAI as per the Study for Pre COD period was determined to be Rs. 66.20 crores after taking into account the necessary adjustments, re-classification and re-allocation. The break-up of O&M expenses is given below:

Table 204: Aeronautical O&M Expenses for AAI as per the current Study for Pre-COD Period

(Rs. in crores)

Particulars	Pre COD
Employee Benefit Expenses	31.31
A&G Expenses	0.06
CHQ & RHQ Expenses	15.09
R&M Expense	9.58
Utility & Outsourcing Expenses	9.50
Other Outflows	0.66
Total Operating Expenditure (B)	**66.20**

17.2.4 Aeronautical O&M expenses submitted by AAI and as per the current Study for SCP and Pre-COD Period

17.2.4.1 The aeronautical expenses submitted by AAI and as per the Study amounted to Rs. 767.08 crores & 682.18 crores respectively. As can be seen, there is an impact of Rs. 84.90 crores on the O&M expenses due to adjustments, rationalization, reclassification and re-allocation of expenses. The table below demonstrates the comparison of O&M expenses, categorized head wise, as per AAI and as per the Study for both the SCP and Pre COD periods:

Table 205: Aeronautical O&M Expenses submitted by AAI and as per the current Study for the SCP and Pre-COD Period

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total	Pre COD	Total
As per AAI Submission								
Employee Benefit Expenses	48.71	60.58	74.97	78.42	58.01	**320.70**	33.30	**354.00**
A&G Expenses	2.61	1.90	2.56	3.92	5.59	**16.58**	0.04	**16.62**
CHQ & RHQ Expenses	32.58	43.44	42.45	52.47	31.11	**202.05**	17.54	**219.59**
R&M Expense	11.95	11.46	12.54	12.46	15.65	**64.05**	9.61	**73.66**
Utility & Outsourcing Expenses	13.64	16.57	16.52	18.68	16.83	**82.25**	9.63	**91.88**
Other Outflows	1.53	2.64	3.01	3.06	0.45	**10.68**	0.66	**11.33**
Total Operating Expenditure (A)	**111.01**	**136.60**	**152.05**	**169.01**	**127.64**	**696.30**	**70.78**	**767.08**
As per the Study								
Employee Benefit Expenses	48.15	59.73	73.80	77.33	57.16	**316.17**	31.31	**347.48**
A&G Expenses	1.21	2.05	2.98	3.35	2.37	**11.96**	0.06	**12.02**
CHQ & RHQ Expenses	14.67	17.96	30.70	43.63	26.76	**133.72**	15.09	**148.80**
R&M Expense	11.83	11.11	11.86	11.86	13.23	**59.89**	9.58	**69.47**

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total	Pre COD	Total
Utility & Outsourcing Expenses	13.47	16.36	16.16	18.73	18.83	**83.56**	9.50	**93.07**
Other Outflows	1.53	2.64	3.01	3.06	0.45	**10.68**	0.66	**11.33**
Total Operating Expenditure (B)	**90.87**	**109.84**	**138.51**	**157.97**	**118.80**	**615.98**	**66.20**	**682.18**
Variance (C = A - B)	**20.15**	**26.76**	**13.54**	**11.04**	**8.84**	**80.32**	**4.57**	**84.90**

17.2.5 **Assessment of O&M Expenses and its allocation submitted by TKIAL and as per the current Study for Post COD Period**

17.2.5.1 In FY 2021-22, TKIAL operated the airport for a period of 5.5 months post COD in which they had incurred an amount of Rs. 65.79 crores towards O&M expenses. The employee expenses of AAI, Corporate cost allocation and R&M expenses primarily contribute towards this amount. However, all the expenses were analysed separately to ascertain their reasonableness.

17.2.5.2 The average salary per TKIAL employee is higher than that of the Select Employees (of AAI) by more than ~ 75%. The Study has considered the Select employees of AAI and TKIAL as common and bifurcated the employee expenses towards them in EHCR of 98.56% and 91.67% respectively. The adjustments in the Study led to an overall reduction of Rs. 0.75 crores on the employee expenses.

17.2.5.3 Utility Expense incurred by TKIAL for the Post COD period does not reflect major change as compared to the cost incurred by AAI for Pre COD period, as there has not been any considerable change to the airport infrastructure. The utility expenses with water charges (Rs. 5.68 crores) incurred by TKIAL seems to be reasonable after netting off the recoveries from the concessionaires.

17.2.5.4 The Security expenses, as per TKIAL is Rs. 3.76 crores. The expense related to R&M of security equipment amounting to Rs. 2.04 crores were recategorized to R&M head and analysed there. The Study has further reclassified the expense as common and applied Gross Block ratio which led to an overall reduction of Rs. 2.05 crores in the Security expense.

17.2.5.5 The Corporate Support Service expense, as per the MYTP submission of TKIAL, is Rs. 7.01 crores. However, the Study has made certain adjustment to this expense which led to an overall reduction of Rs. 0.62 crores in the CSS expense.

17.2.5.6 As per the submission of TKIAL, the aeronautical A&G expenses including insurance, IT expense and Bank charges amounts to is Rs. 4.94 crores. Certain reclassifications have been carried out in the Study, resulting in the revised aeronautical A&G expenses to be Rs. 4.81 crores. This led to an overall reduction of Rs. 0.13 crores in the A&G expenses.

17.2.5.7 The R&M expenses of TKIAL were included with R&M of Security equipment in the Study and found reasonable and in the range of cost incurred by other PPP Airports. The Study has reclassified the expenses and led to the increase of R&M expenses by Rs. 1.93 crores. The R&M expense post reclassification as per the Study were lower than 6% of the opening RAB of TKIAL. Therefore, this expense does not require any rationalization.

17.2.5.8 As per the submission of TKIAL, the other outflow expenses as per TKIAL is Rs. 4.46 crores. Certain reclassifications have been carried out in the Study, because of which, other outflow expenses revised to Rs. 4.05 crores. This led to an overall reduction of Rs. 0.41 crores in the other outflow expenses.

17.2.5.9 TKIAL has submitted a cost of Rs. 1.67 crores in respect of fees payment to the Independent Engineer appointed by AAI for a period of 3 years for a fee of Rs. 11.35 crores starting from 22nd October 2021. As per Clause 24.3.1 of the Concession Agreement, this cost has to be considered as a pass-through expense by AERA. Consequently, the Study considers the fee of Rs. 1.67 crores as an O&M expense for the Post COD period.

17.2.5.10 As per the submission of TKIAL, the aeronautical O&M expenses for the Post COD Period amounts to Rs. 65.79 crores. Certain reclassifications have been carried out in the Study, because of which, the aeronautical O&M expenses as per the Study were revised to Rs. 63.84 crores. This led to an overall reduction of Rs. 2.95 crores in the aeronautical O&M expenses. The breakdown of the expenses is provided below:

Table 206: Aeronautical expenses for TKIAL for post COD period as per the current Study

(Rs. in crores)

Heads	Sub Heads	Post COD
Employee Benefit Expenses	Manpower expenses - AAI employees	27.68
	Manpower expenses - Adani employees	3.85
Utility & Outsourcing Expenses	Utility expenses	5.68
	Security expenses	1.71
CSS Expenses	Corporate Allocation	6.39
A&G Expenses	Independent Engineer Fee	1.67
	Administrative Expenses – Others	4.81
R&M Expenses	R&M	7.89
Other Outflows	Collection Charges on UDF	0.11
	Others	4.05
	Total	**63.84**

17.2.5.11 It is important to consider that TKIAL operated the airport for only 5.5 months during the Second Control Period. In such cases, it is common to have one-time expenses associated with repairs, modifications, or refurbishments when a new operator takes over the operations of an airport. To assess the reasonableness of these expenses, it is necessary to analyze trends over a longer period of time.

17.2.5.12 Drawing conclusions about the efficiency of TKIAL based on just five months of data would be premature. However, based on a broad-level assessment, there are no deviations from the trends observed at TRV in the past. While a longer timeframe would provide a more comprehensive understanding of the operator's performance, the initial analysis does not indicate any significant concerns.

17.2.6 External Benchmarking of Expenses of AAI

17.2.6.1 It is observed that, based on a per PAX basis, TRV seems to have higher operational expenses with respect to select comparable peers. However, this is primarily due to the CHQ/RHQ expenses and Employee expenses that are quite high for TRV.

17.2.6.2 The employee expenses per passenger of TRV are higher than most of the other airports due to lower passenger traffic and TRV’s strategy of prioritizing customer service and quality staff leads to a higher cost structure. However, it is within the budget approved in the SCP order. Thus, the employee expenses for TRV seem to be reasonable.

17.2.6.3 The A&G expenses of TRV (4.93% of total expenses) when compared as a % of the total expenses, is slightly higher than Pune. But lower than that of Ahmedabad. Further, the expenses are the second lowest among all the airports. Thus, the A&G expenses are moderate in comparison to the other airports.

17.2.6.4 TRV’s R&M expenses per average RAB are lower than most airports, even from an external benchmarking point of view, it can be concluded that the R&M expenses incurred by AAI are reasonable. These expenses were discussed in detail in the fifth chapter.

17.2.6.5 TRV is incurring the highest CHQ/RHQ expenses among its peer group and the expenses seem unreasonable. However, these expenses have been readjusted in Table 27. Since TRV was concessioned during the Second Control Period, these expenses would not appear as part of the O&M expenses in future Control Periods. However, TKIAL does incur corporate support service expenses towards its parent companies. If it is observed that such expenses do not seem reasonable, the Study may consider capping the allowable expenses based on suitable global/regional benchmarks at the time of determination of tariffs for future Control Periods.

17.2.6.6 Based on external benchmarking, there is no evidence to suggest that the utility expenses for TRV are unreasonable.

17.2.6.7 Based on the observations from external benchmarking, it can be concluded that the operations and maintenance expenses at TRV are reasonable except for CHQ/RHQ expenses that seem exorbitantly high and are driving the overall costs high. Though the cost structure may evolve as the airport transforms to a PPP regime, the Study may still consider capping the allowable expenses based on suitable regional benchmarks at the time of determination of tariffs for future Control Periods.

17.2.7 Conclusion

17.2.7.1 Based on the analysis of the submissions of AAI and TKIAL, the O&M expenses for TRV for the Second Control Period and Pre & Post COD period is determined as per the Study to be Rs. 746.02 crores. (Rs. 682.18 crores by AAI and Rs. 63.84 crores by TKIAL). The break-up of the O&M expenses is given below.

Table 207: O&M Expenses for SCP and Pre & Post COD period as per the current Study

(Rs. in crores)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total (A=sum (FY 17 to FY21))	Pre COD (B)	Total (C=A+B)	Post COD (D)	Total (E=C+D)
Employee Benefit Expenses	48.15	59.73	73.80	77.33	57.16	**316.17**	31.31	**347.48**	31.53	**379.00**
A&G Expenses	1.21	2.05	2.98	3.35	2.37	**11.96**	0.06	**12.02**	6.48	**18.50**
CHQ & RHQ or CSS Expenses	14.67	17.96	30.70	43.63	26.76	**133.72**	15.09	**148.80**	6.39	**155.19**
R&M Expense	11.83	11.11	11.86	11.86	13.23	**59.89**	9.58	**69.47**	7.89	**76.96**
Utility & Outsourcing Expenses	13.47	16.36	16.16	18.73	18.83	**83.56**	9.50	**93.07**	7.40	**100.46**
Other Outflows	1.53	2.64	3.01	3.06	0.45	**10.68**	0.66	**11.33**	4.16	**15.50**
Total Operating Expenditure	**90.87**	**109.84**	**138.51**	**157.97**	**118.80**	**615.98**	**66.20**	**682.18**	**63.84**	**746.02**

17.3 Annexure 3: Projects not/partly considered for addition to RAB by the Authority for the Third Control Period

Projects Category	Project /Item Name	Base Cost
Other Buildings	Replacement of 11KV Old HT panels in CCR with associated works	1.65
IT – Strategic Projects	Traffic Management	0.80
IT – Strategic Projects	IT Network Segmentation	14.33
IT – Strategic Projects	IOT-enabled PAX Count, Flow and Queue Monitoring	7.64
IT – Strategic Projects	IOT-enabled Asset Tracking Project	4.93
IT – Strategic Projects	Wi-Fi Network - Passenger	4.20
IT – Strategic Projects	Vehicle Tracking and SLA Violation Reporting	0.80
IT – Strategic Projects	Landside Security Camera	0.56
IT – Strategic Projects	Wi-Fi Network - Indoor	0.39
IT – Strategic Projects	AI, IOT, R&D and other Strategic Initiatives	2.00

17.4 Annexure 4: Clauses of the Concession Agreement entered into between AAI and TKIAL

Concession Agreement Heading	Clause No.	Clause Description
AO obligation regarding Conditions Precedent within 180 days	4.1.3	Except as may have been specifically otherwise provided in this Agreement, the Conditions Precedent required to be satisfied by the Concessionaire within a period of 180 (one hundred and eighty) days from the date of this Agreement shall be deemed to have been fulfilled, when the Concessionaire shall, subject to the satisfaction of the Authority, have: (a) provided performance security to the Authority in accordance with Clause 9.1 ; (b) procured all the Applicable permits as may be required for the commencement of the project unconditionally, or if subject to conditions, then all such conditions required to be fulfilled by the date specified therein shall have been satisfied in full, and such Applicable Permits are in full force and effect; (c) executed and procured execution of the Escrow Agreement in the form provided in Schedule M and the same shall have become effective in accordance with the terms thereof; (d) executed and procured the execution of the CNS-ATM Agreement in the form provided in Schedule Q and the same shall have become effective in accordance with the terms thereof; (e) maintained shareholding of the concessionaire in accordance with the requirements of the RFP and this Agreement; (f) delivered to the Authority from the selected Bidder, confirmation of the correctness of the representations and warranties, set forth in sub-clauses (c), (f), (g), (j), (k), (l), (o) and (p) of Clause 7.1 of this Agreement; (g) delivered to the Authority a legal opinion from the legal counsel of the concessionaire with respect to the authority of the Concessionaire to enter into this Agreement and the enforceability of the provisions hereof; (h) delivered to the Authority: (a) a list of Construction works it proposes to undertake in the first 7 (seven) Concession years, having due regard to the works: a. Currently being implemented by the Authority; and b. Proposed to be implemented by the Authority as on the date of signing the Agreement (and as set forth in Schedule U), (b) the scheduled date for completion of such Construction works. (i) executed and procured execution of the Memorandum of Understanding in the form provided in Schedule R and the same shall have become effective in accordance with the terms thereof. Provided that upon request in writing by the Concessionaire, the Authority may, in its discretion, waive any of the Conditions Precedent set forth in this Clause 4.1.3 for the purposes of the achievement of the COD. The Authority may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.
Select Employees	6.5.1, 6.5.4, 6.5.10 read with 28.4.3	**Clause 6.5.1. states that:** “(i) “Select Employees·’ shall mean those employees of the Authority as set forth in Schedule S (of the rank of assistant general manager and below) who are posted at the Airport by the Authority and shall be deployed at the Airport for the duration of the Joint Management Period and Deemed Deputation Period. The Select Employees shall stand reduced to the extent of employees who retire, are deceased or otherwise separated from Authority’s services during the Joint Management Period or Deemed Deputation Period. It is clarified that the Select Employees shall not be reduced to the extent of employees who are transferred by AAI.

Concession Agreement Heading	Clause No.	Clause Description
		ii. "Joint Management Period·· shall mean the period commencing from the COD and ending on the date which is 1 (one) calendar year after the COD. iii. "Deemed Deputation Period" shall mean the period commencing from the expiry of the Joint Management Period and ending on the date which is 2 (two) calendar years therefrom." **Clause 6.5.4 states that:** "The Concessionaire shall bear the Select Employee Costs for the Joint Management Period and Deemed Deputation Period." **Clause 6.5.10 states that:** "If, at the expiry of the Deemed Deputation Period, the number of Accepting Employees is less than 60% (sixty) percent of the Select Employees (the ·'Deficit Employees"), the Concessionaire shall, commencing from the expiry of the Deemed Deputation Period pay to the Authority, on a monthly basis, such amounts as may be indicated in an invoice to be raised by the Authority on the Concessionaire with regard to the emoluments payable by the Authority in respect of such Deficit Employees (the "Deficit Employee Costs"). (i) The select Employees in respect of which the DeficitEmployee costs are payable shall be mutually identified by the Parties no later than 3 (three) months prior to the expiry of the Deemed Deputation Period. (ii) The Deficit Employee costs shall be considered for pass-through in the determination of the Aeronautical Charges. (iii) The provisions of sub-clauses 6.5.5 (i), 6.5.5 (ii), 6.5.5 (iii), and 6.5.5(iv) shall, *mutatis mutandis*, apply to payment of the Deficit Employee Costs (iv) The Deficit Employee Costs shall be considered for pass-through in the determination of the Aeronautical Charges." **Clause 28.4.3 states that:** "The Parties agree and acknowledge that the Concessionaire expressly waives its right to seek as pass-through in the Aeronautical Charges such costs and/ or expenses which the Concessionaire is restrained under this Agreement from seeking to be passed-through thereunder."
Performance Security	9.1.1	The Concessionaire shall, for the performance of its obligations during Phase I hereunder, provide to the Authority, no later than 120 (one hundred and twenty) days from the date of this Agreement, an irrevocable and unconditional guarantee from a Bank for a sum equivalent to Rs. 80,00,00,000 (Rupees Eighty crore) in the form set forth in Schedule E ("Performance Security"). Until such time the Performance Security is provided by the Concessionaire pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security pursuant hereto, the Authority shall release the Bid Security to the Concessionaire.
Performance Security	9.1.3	After completion of Phase-I, the value of the Performance Security shall be revised to an amount equal to 10% (ten percent) of the Yearly Concession Fee paid by the Concessionaire in the Concession Year immediately preceding the Concession year in which the Phase - 1 completion date falls. Thereafter, the value of the Performance Security shall be increased by the Concessionaire every 5 (five) Concession Years to an amount equal to 10% (ten percent) of the Yearly Concession Fee paid by the Concessionaire in the immediately preceding Concession Year.
Transfer of Finances	16.1.1	All revenues, receipts, expenditure and other financial transactions for and in respect of the Airport shall be deemed to be transferred from the Authority to the Concessionaire with effect from 0000 (zero zero zero zero) hours on COD and all rights, obligations and liabilities in respect thereof shall vest exclusively in the Concessionaire from that hour and until the Transfer Date. All liabilities incurred by the Authority prior to COD, including any debt obligations and payments to the Authority or any third party, shall continue to vest in the

Concession Agreement Heading	Clause No.	Clause Description
		Authority at all times, and the Authority Shall indemnify, defend, save and hold harmless the Concessionaire against any and all suits, proceedings, actions, demands and claims for any loss, damage, cost and expense of whatever kind and nature under or in connection with any Novated Contracts or the Non-Novated Contracts arising before the COD. Provided that the Authority shall not be liable for any individual claim which is less than Rs. 2,00,00,000 (Rupees Two crore), nor shall the aggregate liability of the Authority for all claims (excluding related interest and enforcement costs) under any or all Novated contracts and/or non-novated contracts be equal to or exceed Rs 20,00,00,000 (Rupees Twenty crore).
Observation Period prior to COD	16.5	The Authority (AAI) shall for a period of 60 days prior to COD, enable the concessionaire and all persons designated by it to enter the airport and observe the functioning of the staff, equipment, systems and facilities at airport. The Authority shall instruct its staff to cooperate with the Concessionaire and its designated persons and assist them in acquiring the knowledge and skills necessary for operating the Airport after COD. Provided, however, that the provisions of this Clause 16.5 shall apply only after the Concessionaire has provided the Performance Security in accordance with the provisions of Article 9.
Restoration of Loss or damage to airport	18.7	Save and except as otherwise expressly provided in this Agreement, in the event that the Airport or any part thereof suffers any loss or damage during the Concession Period from any cause whatsoever, the Concessionaire shall, at its cost and expense, rectify and remedy such loss or damage forthwith so that the Airport conforms to the provisions of this Agreement. If such loss or damage has resulted due to any breach or default in the performance obligations of the Concessionaire under this Agreement, then, the costs undertaken by the Concessionaire on the repair or rectification or such loss or damage, shall not be taken into consideration for the purposes of the determination of the Aeronautical Charges.
Ground Handling Services	19.2	The Concessionaire shall provide or cause to be provided as per Applicable Laws and Good Industry Practice, at its own cost and expense, the infrastructure required for operation of the ground handling services required at the Airport for and in respect of the Users, like aircrafts, passengers and cargo, which shall include ramp handling, traffic handling, aircraft handling, aircraft cleaning, loading and unloading ("Ground Handling Services"). Such infrastructure shall include luggage conveyor belts, computer terminals, information technology backbone and associated facilities in accordance with the provisions of this Agreement, Applicable Laws and Good Industry Practice.
Aircraft Fueling Services	19.3	The Concessionaire shall provide, or cause to be provided, the infrastructure required for operation of fueling services on equal access basis for all the aircrafts at the Airport in a transparent and non-discriminatory manner. Such infrastructure shall include tank farms and associated facilities in accordance with the provisions of this Agreement, Applicable Laws and Good Industry Practice. Good Industry Practice.
Cargo facility	19.4.1	(a) The Concessionaire shall upgrade, develop, operate and maintain the Cargo Facilities in accordance with the provisions of this Agreement, Applicable Laws, Applicable Permits, relevant ICAO Documents and Annexes and Good industry Practice.
		(b) Notwithstanding anything to the contrary provided in this Clause 19.4 and Clause 23.5, it is clarified that, where Cargo Facilities have been earmarked for AAICLAS in Schedule A (i) the Concessionaire will not be responsible for operations, development, maintenance and management thereof, nor shall the Concessionaire be bound by the obligations set out elsewhere in this Clause 19.4; and (ii) AAICLAS shall be granted access to the airside by the Concessionaire free of cost.
		(c) It is further clarified that, where Cargo Facilities have been earmarked for AAICLAS in Schedule A, there shall be no restriction on the upgradation and/ or development of Cargo Facilities by the Concessionaire, including on grounds of

Concession Agreement Heading	Clause No.	Clause Description
		quantum of cargo volumes at the Airport, business potential or impact of such additional facilities on Cargo Facilities earmarked for AAICLAS.
Cargo facility	19.4.2	The Concessionaire shall:
		(a) make reasonable endeavors to ensure that the Cargo Facilities include adequate cargo and parcel space, handling equipment, storage and handling of perishable cargo and dangerous goods, space for cargo agents and customers, inspection area, office space, automation systems, screening equipment, storage facilities, and facilities for mail handling and courier shipments in accordance with the provisions of this Agreement and Good Industry Practice;
		(b) operate and maintain the Cargo Facilities and provide the associated services to airlines and consignors in accordance with the provisions of this Agreement, Applicable Laws and Good Industry Practice;
		(c) provide, free of charge and in accordance with Good Industry Practice, operational space and other facilities to the customs, security, quarantine and other Designated GOI Agencies, as the case may be, for discharging their statutory functions;
		(d) install and keep operating in good working condition, web-cams, at all the strategic locations, wherever, the cargo facilities are being handled or dealt with in any manner whatsoever.
Cargo facility	19.5.1	The Concessionaire shall ensure that the Master Plan earmarks an area for Cargo Facilities, and that such area shall be used only for handling of cargo and for associated activities.
CNS/ATM Services	20.2.1	The Authority (AAI) shall, upon fulfilment of the applicable terms and conditions by Concessionaire, at the request of consessionaire, procure the execution of an agreement between the Authority and the consessionaire, substaintially in the form set forth in Schedule Q (CNS/ATM Agreement), which shall ensure the provision of CNS/ATM Services at the Airport, at all times during concession period in accordance with the practises established or recommended by from time to time pursuant to the Chicago Convention and on the same terms as applicable to simlilar services at other airports in India, and in compliance with the directions of DGCA. If the format of CNS/ATM agreement is changed or modified by the authority in its sole discretion any time after the date of this agreement but before its execution by the concessionaire, then, the concessionaire shall execute the CNS/ATM agreement in such changed or modified format.
CNS/ATM Services	20.2.2	The Designated GOI Agency, may at its own cost, install at the Airport, any radar, equipment or facilities necessary for the provision of enroute and terminal air navigation services and the Concessionaire hereby undertakes to provide all necessary civil infrastructure and necessary support assistance in respect thereof.
Independent Engineer Fees	24.1.2	The appointment of the Independent Engineer shall be made within 90 (ninety) days of the date of execution of this Agreement, and such appointment shall be valid for a period of 3 (three) years. On the expiry or termination of the said appointment, the Authority shall appoint an Independent Engineer for a further term of 3 (three) years in accordance with the provisions of Schedule K, and such procedure shall be repeated after expiry of each appointment.
Independent Engineer Fees	24.3.1	The remuneration, cost and expenses of the Independent Engineer shall be paid by the Authority, and all such remuneration, cost and expenses shall be reimbursed by the Concessionaire to the Authority within 15 (fifteen) days of receiving a statement of expenditure from the Authority. Any amounts paid to the Independent Engineer shall be considered for a pass-through for the determination of the Aeronautical Charges by the Regulator.
Collection of Fee's by Concessionaire	28.1.1	On and from COD and till the Transfer Date, the Concessionaire has the sole and exclusive right to demand, collect and appropriate Fees from the Users for the provision of the Aeronautical Services and Non-Aeronautical Services, including the

Concession Agreement Heading	Clause No.	Clause Description
		airlines and passengers, in accordance with the provisions of the Regulatory Framework and this Agreement including the terms set out in Schedule R (Memorandum of Understanding), provided that the Concessionaire may determine and collect Fees at such lower rates as may be agreed with the Users or any category of Users in accordance with the Applicable Laws and Applicable Permits.
Deemed Initial RAB	28.11.3	(a) It is agreed by the parties that the concessionaire shall be liable to pay to the Authority an amount equivalent to the investments made by the Authority in the Aeronautical Assets as of the COD and considered by the Regulator as part of the Regulatory Asset Base, subject to requisite reconciliation, true-up and final determination by the Regulator of the quantum of such investment ("Deemed Initial RAB").
		(b) The estimated depreciated value of investments made by the Authority in the Aeronautical Assets at the Airport as on 31st March 2018 is Rs. 424,00,00,000 (Rupees Four Hundred and Twenty Four crore) ("Estimated Deemed Initial RAB"). It is agreed by the Parties that the Estimated Deemed Initial RAB shall be due and payable by the Concessionaire to the Authority within 90 (ninety) days of COD.
Deemed Initial RAB	28.11.4	"Pursuant to the payment of the Estimated Deemed Initial RAB, and upon the reconciliation, true-up and final determination by the Regulator of the quantum of the investment under 28.11.3(a), any surplus or deficit in the Estimated Deemed Initial RAB with respect to the Deemed Initial RAB shall be adjusted as part of the Balancing Payment that becomes due and payable as per Clause 31.4 after the expiry of 15 (fifteen) days from such final determination by the Regulator, with due adjustment for the following ("Adjusted Deemed Initial RAB"):
		(a) reduced to the extent of over-recoveries, if any, of Aeronautical Revenues by the Authority until the COD, that the Regulator would provide for as a downward adjustment while determining Aeronautical Charges for the next Control Period; or
		(b) increased to the extent of under-recoveries, if any, of Aeronautical Revenues by the Authority until the COD, that the Regulator would provide for as an upward adjustment while determining Aeronautical Charges for the next Control Period.
		The amount(s) to be paid by the Authority or Concessionaire shall be the present value of Adjusted Deemed Initial RAB calculated using the fair rate of return as determined by the Regulator for the time period from the COD to the date of actual payment of the Adjusted Deemed Initial RAB.
Deemed Initial RAB	28.11.5	Upon reimbursement of such amount by the Concessionaire to the Authority, the Deemed Initial RAB will, in addition to the investments made by the Concessionaire, be considered for the purpose of determination of Aeronautical Charges by the Regulator.
		(a) The Authority undertakes to make any required supporting submissions to the Regulator towards such consideration and determination by the Regulator.
		(b) The parties shall submit to and request the Regulator to separately identify the Deemed Initial RAB in future determinations of Aeronautical Charges with regard to consideration of depreciation, required returns, etc.

18 APPENDICES

18.1 Appendix 1 – Study on Allocation of Assets between Aeronautical and Non-Aeronautical Assets
18.2 Appendix 2 – Study on Efficient Operation and Maintenance Expenses
18.3 Appendix 3 – Technical Report on Condition Assessment of Terminal TI