



AIRPORTS ECONOMIC REGULATORY AUTHORITY OF INDIA

**IN THE MATTER OF
DETERMINATION OF AERONAUTICAL TARIFF FOR
NETAJI SUBHAS CHANDRA BOSE INTERNATIONAL AIRPORT
KOLKATA (CCU)
FOR THE THIRD CONTROL PERIOD
(01.04.2021 – 31.03.2026)**

DATE OF ISSUE: 29 December 2021

**AERA BUILDING
ADMINISTRATIVE COMPLEX
SAFDARJUNG AIRPORT
NEW DELHI 110003**

Stakeholder Comments

The Authority is aware of the fact that since the early months of 2020 the Aviation Sector has been faced with severe disruptions and uncertainty on account of the second wave of infections and their impact on the industry as a result of the prevailing restrictions in air travel, both domestic and international, across the world. The Authority is inclined to avoid delay in approval and implementation of tariffs for the Third Control Period and therefore has released this Consultation Paper currently in which the proposals have been put forward based on the Authority's analysis and observations on the Multi Year Tariff Proposal (MYTP) submitted by the Airport Operator.

The Authority, in the context of the COVID-19 pandemic, after considering all information currently available, the views of the Airport Operators, industry bodies such as IATA, ACI, FICCI, etc. on this matter, and analysing various scenarios, has reviewed the necessary adjustments in traffic and other regulatory building blocks on account of the expected changes and uncertainties in the prevailing business scenario. However, these adjustments would be finalised only after consideration of valuable comments from the stakeholders.

For this Consultation Paper, the Authority has considered the actual audited financial results for the first four years of the Second Control Period (FY 2016-17 to FY 2019-20) and projections for FY 2020-21. Since AERA is doing this tariff determination exercise in real time, the figures for FY 2020-21 are not available at this stage. The Authority will factor in the actual financial results for FY 2020-21 on receipt of the audited financial statements from the Airport Operator during the consultation stage and appropriately make necessary adjustments on account of the same in the Tariff Order. In case the Airport Operator does not provide the audited financial results for FY 2020-21, the Authority shall make appropriate changes in the FY 2020-21 projections, in the Tariff Order.

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 airport services.

Thus, in accordance with the provisions of Section 13(4) of the AERA Act, the written comments on Consultation Paper No. 25/2021-22 dated 29 December 2021 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 Airports, New Delhi – 110002, India

Email: director-ps@aera.gov.in, rajan.guptal@aera.gov.in, with copy to secretary@aera.gov.in

Stakeholder Consultation Meeting	12/01/2022
Last Date for submission of stakeholder's comments	28/01/2022
Last Date for submission of counter comments	08/02/2022

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 at Telephone Number: +91-11-24695048.

List of Abbreviations

Abbreviations	Full forms
AA/ES	Administrative Approval and Expenditure Sanction
AAI	Airports Authority of India
AAICLAS	Airports Authority of India Cargo Logistics and Allied Services
AERA	Airports Economic Regulatory Authority of India
AOCC	Airports Operations Control Centre
ARR	Aggregate Revenue Requirement
AS	Airport Services
ASQ	Airport Service Quality
ASRS	Aviation Safety Reporting System
ATC	Air Traffic Control
ATM	Air Traffic Movement
ATRS	Automatic Tray Retrieval System
AUCC	Airport User Consultative Committee
BIAL	Bangalore International Airport Limited
CAGR	Compounded Annual Growth Rate
CBR	California Bearing Ratio
CFT	Crash Fire Tender
CGF	Cargo Groundhandling Fuel
CHQ	Corporate Head Quarter
CMD	Civil Maintenance Department
CP	Consultation Paper
CPI	Consumer Price Index
CSR	Corporate Social Responsibility
CUTE	Common User Terminal Equipment
CWIP	Capital Work In Progress
DARK	Disabled Aircraft Retrieval Kit
DFMD	Door Frame Metal Detector
DGCA	Directorate General of Civil Aviation
DIAL	Delhi International Airport Limited
EHCR	Employee Headcount Ratio
EMD	Electrical Maintenance Department
EMI	Equated Monthly Instalment
EQTR	Employee Quarter Ratio
ETD	Explosive Trace Device
FA	Financing Allowance
FCP	First Control Period
FRoR	Fair Rate of Return
FTC	Fuel Throughput Charge
GST	Grand Southern Trunk
HHMD	Hand-Held Metal Detector
HVAC	Heating Ventilation and Air Conditioner
ICAO	International Civil Aviation Organisation
IDC	Interest During Construction
IIT	Indian Institute of Technology

Abbreviations	Full forms
IT	Information Technology
IT Act	Income Tax Act
MEP	Mechanical, Electrical and Plumbing
MIAL	Mumbai International Airport limited
MLCP	Multi-level Car Park
MPPA	Million Passengers Per Annum
MRO	Maintenance, Repair and Overhaul
MYTP	Multi Year Tariff Proposal
NCAP	National Civil Aviation Policy
NITB	New Integrated Terminal Building
NSCBIA	Netaji Subhas Chandra Bose International Airport
PAX	Passengers
PBT	Profit Before Tax
PIDS	Perimeter Intrusion Detection System
PSF	Passenger Security Fee
RAB	Regulatory Asset Base
R&M	Repair & Maintenance
RBI	Reserve Bank of India
RET	Rapid Exit Taxiways
RGB LED	Red Green Blue Light Emitting Diode
RHQ	Regional Head Quarters
SBDS	Self Baggage Drop Systems
SBI	State Bank of India
SCO	Shop-cum-office
SCP	Second Control Period
SITC	Supply, Installation, Testing and Commissioning
STP	Sewage Treatment Plant
SUV	Sports Utility Vehicle
T-1	Terminal 1
T-2	Terminal 2
T-3	Terminal 3
T-4	Terminal 4
TB	Terminal Building
TBLR	Terminal Building Ratio
TCP	Third Control Period
TDSAT	Telecom Disputes Settlement and Appellate Tribunal
UDF	User Development Fee
UNESCO	United Nations Educational, Scientific and Cultural Organization
VEHR	Vehicle Ratio
WDV	Written-down Value
WPI	Wholesale Price Index
XBIS	X-ray Baggage Inspection System
Units of Measurement	
Mn	Million
Rs	Rupees

LIST OF ABBREVIATIONS

Abbreviations	Full forms
Cr	Crore
FY	Financial Year
sq.m.	Square metre
p.a.	per annum
YoY	Year on Year

TABLE OF CONTENTS

1.	BRIEF ON NETAJI SUBHAS CHANDRA BOSE INTERNATIONAL AIRPORT	14
1.1.	Introduction	14
2.	MULTI-YEAR TARIFF PROPOSAL SUBMISSION BY AAI FOR NETAJI SUBHAS CHANDRA BOSE INTERNATIONAL AIRPORT.....	16
2.1.	Introduction	16
2.2.	Methodology for Tariff Determination.....	17
2.3.	Control Period	19
2.4.	Construct of the Consultation Paper	19
3.	TRUE UP FOR THE SECOND CONTROL PERIOD	20
3.1.	Issues raised by AAI pertaining to true-up for the Second Control Period	20
3.2.	True-up of Traffic for the Second Control Period.....	20
3.3.	True-up of Regulatory Asset Base	22
3.4.	True-up of Aeronautical Depreciation.....	33
3.5.	True-up of the Fair Rate of Return	37
3.6.	True-up of Return on Land	38
3.7.	True-up of Operating and Maintenance (O&M) Expenses.....	39
3.8.	True-up of Non-Aeronautical Revenues.....	47
3.9.	True-up of Aeronautical Revenue	48
3.10.	True-up of Aeronautical Taxes	50
3.11.	True-Up of Aggregate Revenue Requirement	52
3.12.	Authority's proposals regarding true-up of Second Control Period.....	54
4.	TRAFFIC FOR THE THIRD CONTROL PERIOD	56
4.1.	AAI's submission regarding Traffic in Third Control Period.....	56
4.2.	Authority's analysis regarding Traffic for Third Control Period.....	56
4.3.	Authority's Proposal regarding Traffic for the Third Control Period	58
5.	REGULATORY ASSET BASE AND DEPRECIATION FOR THIRD CONTROL PERIOD	59
5.1.	AAI's submission regarding RAB and Depreciation for the Third Control Period.....	59
5.2.	Authority's examination of RAB and Depreciation for Third Control Period	62
5.3.	Authority's Proposals regarding RAB and Depreciation for the Third Control Period	80
6.	FAIR RATE OF RETURN FOR THE THIRD CONTROL PERIOD	81
6.1.	AAI's submission regarding the FRoR for the Third Control Period	81
6.2.	Authority's examinations regarding Fair Rate of Return for the Third Control Period	82
6.3.	Authority's Proposals regarding Fair Rate of Return for the Third Control Period.....	83
7.	RETURN ON LAND FOR THE THIRD CONTROL PERIOD	85
7.1.	AAI's submissions regarding Return on Land for the Third Control Period	85

7.2.	Authority's examination regarding Return on Land for the Third Control Period	85
7.3.	Authority's Proposal regarding Return on Land for the Third Control Period.....	85
8.	OPERATING & MAINTENANCE EXPENSES FOR THIRD CONTROL PERIOD ..	86
8.1.	AAI's Submissions regarding O&M Expenses for the Third Control Period	86
8.2.	Authority's examination of O&M expenses in the Third Control Period:	87
8.3.	Authority's Proposal regarding O&M expenses for the Third Control Period.....	90
9.	NON-AERONAUTICAL REVENUE FOR THE THIRD CONTROL PERIOD	91
9.1.	AAI's Submissions regarding Non-Aeronautical Revenue for the Third Control Period.....	91
9.2.	Authority's examinations regarding Non-Aeronautical Revenue for the Third Control Period..	92
9.3.	Authority's Proposals regarding Non-Aeronautical Revenue for the Third Control Period ..	93
10.	TAXATION FOR THE THIRD CONTROL PERIOD	94
10.1.	AAI's Submissions regarding Taxation for the Third Control Period	94
10.2.	Authority's examinations regarding Aeronautical Tax for the Third Control Period	94
10.3.	Authority's Proposals regarding Aeronautical Tax for the Third Control Period	94
11.	INFLATION FOR THE THIRD CONTROL PERIOD	96
11.1.	AAI's Submission regarding Inflation for the Third Control Period	96
11.2.	Authority's examination regarding Inflation for the Third Control Period	96
11.3.	Authority's Proposal regarding Inflation for the Third Control Period.....	96
12.	QUALITY OF SERVICES FOR THE THIRD CONTROL PERIOD	97
12.1.	AAI's Submissions regarding Quality of Services for the Third Control Period	97
12.2.	Authority's examination regarding Quality of Services for the Third Control Period.....	97
12.3.	Authority's Proposals regarding Quality of Services for the Third Control Period.....	97
13.	AGGREGATE REVENUE REQUIREMENT FOR THE THIRD CONTROL PERIOD	99
13.1.	AAI's Submissions regarding Aggregate Revenue Requirement for the Third Control Period..	99
13.2.	Authority's examination regarding Aggregate Revenue Requirement for the Third Control Period.....	100
13.3.	Authority's Proposal regarding Aggregate Revenue Requirement for the Third Control Period	101
14.	AERONAUTICAL REVENUE FOR THE THIRD CONTROL PERIOD.....	102
14.1.	AAI's submission regarding Aeronautical Revenue for the Third Control Period.....	102
14.2.	Authority's examination regarding Aeronautical Revenue for the Third Control Period	103
14.3.	Authority's Proposal Regarding Aeronautical Revenue for the Third Control Period	105
15.	SUMMARY OF AUTHORITY'S PROPOSALS	106
	Chapter 3: True up for the Second Control Period.....	106
	Chapter 4: Traffic for the Third Control Period.....	106

Chapter 5: Regulatory Asset Base and Depreciation for the Third Control Period	106
Chapter 6: Fair Rate of Return for the Third Control Period.....	107
Chapter 7: Return on Land for the Third Control Period	107
Chapter 8: Operating and Maintenance Expenses for the Third Control Period	107
Chapter 9: Non-Aeronautical Revenue for the Third Control Period	108
Chapter 10: Taxation for the Third Control Period	108
Chapter 11: Inflation for the Third Control Period	108
Chapter 12: Quality of Services for the Third Control Period	108
Chapter 13: Aggregate Revenue Requirement for the Third Control Period	108
Chapter 14: Aeronautical Revenue for the Third Control Period	108
16. STAKEHOLDER CONSULTATION TIMELINE.....	109
17. LIST OF ANNEXURES	110
17.1. Annexure I: Annual tariff submitted by AAI for the Third Control Period	110
17.2. Annexure II: Annual Tariff proposed by the Authority for Consultation Process	115
17.3. Annexure III: Capital additions in the Second Control Period	120
17.4. Annexure IV: Minutes of AUCC meeting	126
18. APPENDICES	129

Appendix I: AAI's letter dated 18 August 2021

Appendix II: M/s SpiceJet Ltd. Letter dated 19 February 2021

Appendix III: Normative cost working for capital works in the Third Control Period as submitted by AAI

Appendix IV: Study of Operations and Maintenance Expenses of NSCBIA, Kolkata (Second Control Period: 2016-21)

List of Tables

Table 1: Infrastructure and Technical details of NSCBIA, Kolkata.....	14
Table 2: Terminal Building details of NSCBIA, Kolkata.....	15
Table 3: Passenger and ATM traffic at NSCBIA, Kolkata during Second Control Period	15
Table 4: Traffic submitted by AAI for true up of Second Control Period	20
Table 5: Traffic considered by the Authority as per Tariff Order for the Second Control Period	21
Table 6: Actual traffic volumes for FY 2020-21 as considered by the Authority	21
Table 7: Traffic volumes proposed to be considered for true up of the Second Control Period by the Authority	22
Table 8: Opening RAB submitted by AAI for true up of Second Control Period.....	22
Table 9: Aeronautical Asset Addition submitted by AAI for true up of Second Control Period.....	23
Table 10: RAB submitted by AAI for true up of Second Control Period.....	23
Table 11: RAB considered by the Authority as per Tariff Order for the Second Control Period	24
Table 12: Summary of aeronautical capital additions for the Second Control Period as submitted by AAI	24
Table 13: Aeronautical Capital Additions approved and commissioned in the Second Control Period proposed to be considered for true up of the Second Control Period by the Authority	25
Table 14: Capital additions incurred in the Second Control Period but not approved in the Second Control Period Order	26
Table 15: Capital additions with cost adjustment proposed to be considered for true up of the Second Control Period by the Authority	27
Table 16: Comparison of Allocation ratios as approved by the Authority and as submitted by AAI ...	29
Table 17: Summary of aeronautical capital additions proposed to be considered for true-up of the Second Control Period by the Authority	29
Table 18: Aeronautical capital addition proposed to be considered for true up of the Second Control Period by the Authority.....	32
Table 19: RAB proposed to be considered for true up of the Second Control Period by the Authority	32
Table 20: Useful life considered by AAI for FY17 and FY18.....	33
Table 21: Useful life considered by AAI from FY 2018-19 onwards	33
Table 22: Aeronautical depreciation submitted by AAI for true up of Second Control Period	34
Table 23: Depreciation Rates as considered by the Authority from FY 2014-15 to FY 2017-18.....	35
Table 24: Depreciation Rates considered by the Authority from FY2018-19 onwards	36
Table 25: Year wise depreciation as approved by the Authority as per the tariff order of the Second Control Period	36
Table 26: Aeronautical depreciation proposed to be considered for true up of Second Control Period by the Authority.....	37
Table 27: FRoR submitted by AAI for true up of Second Control Period	37
Table 28: FRoR proposed to be considered for true up of the Second Control Period by the Authority	38

Table 29: Return on land submitted by AAI for true up of Second Control Period.....	38
Table 30: Rectification of mis-categorization of O&M Expenses	39
Table 31: Payroll costs submitted by AAI for Second Control Period.....	40
Table 32: Administrative and general expenses submitted by AAI for Second Control Period	40
Table 33: R&M expenses submitted by AAI for Second Control Period.....	40
Table 34: Utilities and outsourcing expenses submitted by AAI for Second Control Period	41
Table 35: Other Outflows as submitted by AAI for Second Control Period	41
Table 36: Aeronautical O&M expenses submitted by AAI for true up for Second Control Period.....	41
Table 37: Allocation ratios of common O&M expenses as approved in the tariff order of Second Control Period	42
Table 38: O&M Expenses as approved by the Authority in the tariff order of the Second Control Period.....	42
Table 39: Allocation ratios of common expenses as submitted by AAI.....	43
Table 40: Summary of percentage of common expenses levied on aeronautical portion for each year as submitted by AAI	43
Table 41: Payroll costs proposed to be considered for true up of the Second Control Period by the Authority.....	44
Table 42: Administrative and general expenses proposed to be considered for true up of the Second Control Period by the Authority	45
Table 43: R&M expenses proposed to be considered for true up of the Second Control Period by the Authority.....	45
Table 44: Utilities and outsourcing expenses proposed to be considered for true up of the Second Control Period by the Authority	46
Table 45: Other outflows proposed to be considered for true up of the Second Control Period by the Authority.....	46
Table 46: O&M Expenses proposed to be considered for true up of the Second Control Period by the Authority.....	46
Table 47: Non-aeronautical revenue submitted by AAI for true up of Second Control Period	47
Table 48: Non-aeronautical Revenue as per the tariff order of the Second Control Period.....	48
Table 49: Aeronautical revenue submitted by AAI for true up of Second Control Period.....	48
Table 50: Aeronautical revenue as approved by the Authority in the tariff order of Second Control Period.....	49
Table 51: Aeronautical revenue proposed to be considered for true up of the Second Control Period by the Authority	50
Table 52: Aeronautical Taxes submitted by AAI for true up of Second Control Period.....	50
Table 53: Aeronautical Taxes as approved by the Authority in the tariff order of Second Control Period.....	51
Table 54: Aeronautical Taxes proposed to be considered for true up of the Second Control Period by the Authority	51
Table 55: ARR submitted by AAI for true up of Second Control Period.....	52
Table 56: ARR as approved by the Authority in the tariff order of Second Control Period.....	52

Table 57: ARR proposed to be considered for true up of the Second Control Period by Authority	53
Table 58: ATM and Passenger Traffic for Third Control Period submitted by AAI	56
Table 59: CAGR for passenger traffic and ATM traffic at NSCBIA, Kolkata	57
Table 60: Traffic projections proposed to be considered for Third Control Period by the Authority ...	57
Table 61: Aeronautical capital additions deferred from the Second Control Period to the Third Control Period submitted by AAI	59
Table 62: New Aeronautical Capital Additions for the Third Control Period submitted by AAI.....	60
Table 63: Additions to RAB for the Third Control Period submitted by AAI.....	60
Table 64: Depreciation rates as per AAI's Submission and the Authority	61
Table 65: Aeronautical Depreciation for Third Control Period submitted by AAI.....	61
Table 66: RAB at NSCBIA, Kolkata during Third Control Period submitted by AAI	61
Table 67: Aeronautical capital additions deferred from the Second Control Period to Third Control Period submitted by AAI	62
Table 68: Aeronautical capital additions deferred from the Second Control Period to Third Control Period proposed to be considered by the Authority.....	66
Table 69: New aeronautical capital additions for the Third Control Period submitted by AAI.....	66
Table 70: Normative cost calculation for capacity enhancement at terminal building submitted by AAI	69
Table 71: New Aeronautical Capital Additions for the Third Control Period proposed to be considered by the Authority.....	74
Table 72: Aeronautical Capital Additions for the Third Control Period proposed to be considered by the Authority	75
Table 73: Allocation ratios for the Third Control Period submitted by AAI.....	78
Table 74: Description of allocation ratios as submitted by AAI.....	78
Table 75: Aeronautical capital additions proposed to be considered by the Authority for the Third Control Period	78
Table 76: Depreciation proposed to be considered by the Authority for Third Control Period.....	79
Table 77: RAB proposed to be considered by the Authority for Third Control Period.....	79
Table 78: Debt computation for Third Control Period submitted by AAI.....	81
Table 79: Equity computation for Third Control Period submitted by AAI.....	81
Table 80: FRoR for Third Control Period submitted by AAI	81
Table 81: Debt computation proposed to be considered for Third Control Period by the Authority	82
Table 82: Equity computation proposed to be considered for Third Control Period by the Authority .	83
Table 83: FRoR proposed to be considered for Third Control Period by the Authority	83
Table 84: Return on land for Third Control Period submitted by AAI	85
Table 85: Growth in O&M Expenses for the Third Control Period submitted by AAI	86
Table 86: O&M Expenses submitted by AAI for the Third Control Period submitted by AAI	86
Table 87: Allocation of expenses as submitted for the Third Control Period as submitted by AAI	87
Table 88: Aeronautical allocation of O&M expenses at other AAI airports	87

Table 89: Allocation of O&M expenses for the Third Control Period as proposed to be considered by the Authority	88
Table 90: O&M expenses for the Third Control Period as proposed to be considered by the Authority	89
Table 91: Growth rates of O&M expenses for the Third Control Period proposed to be considered by the Authority	90
Table 92: Summary of assumptions for non-aeronautical revenue for Third Control Period submitted by AAI	91
Table 93: Non-aeronautical revenue for the Third Control Period submitted by AAI.....	92
Table 94: Non-aeronautical revenue proposed to be considered for Third Control Period by the Authority.....	93
Table 95: Aeronautical taxes submitted by AAI for Third Control Period.....	94
Table 96: Aeronautical taxes proposed to be considered by the Authority for Third Control Period ...	94
Table 97: Inflation submitted by AAI for Third Control Period.....	96
Table 98: WPI (non-food manufactured products) as per RBI's 69th round of survey.....	96
Table 99: ASQ Ratings for NSCBIA, Kolkata from 2017-20	97
Table 100: Aggregate Revenue Requirement submitted by AAI for Third Control Period	99
Table 101: Aggregate Revenue Requirement proposed to be considered by the Authority for the Third Control Period	100
Table 102: Aeronautical revenue as submitted by AAI.....	102
Table 103: Aeronautical revenues and shortfall proposed to be considered in the Third Control Period by the Authority.....	104
Table 104: Landing charges (domestic) for Third Control Period submitted by AAI.....	110
Table 105: Landing charges (international) for Third Control Period submitted by AAI.....	111
Table 106: Parking charges up to two hours after first two free hours for Third Control Period submitted by AAI	112
Table 107: Parking charges beyond first four hours for Third Control Period submitted by AAI.....	112
Table 108: Aerobridge charges for Third Control Period submitted by AAI	113
Table 109: User Development Fees for the Third Control Period submitted by AAI.....	113
Table 110: Landing charges (domestic) for Third Control Period proposed to be considered by the Authority.....	115
Table 111: Landing charges (International) for Third Control Period proposed to be considered by the Authority.....	115
Table 112: Parking charges up to two hours after free hours for the Third Control Period proposed to be considered by the Authority*.....	116
Table 113: Parking charges beyond first four hours for the Third Control Period proposed to be considered by the Authority	117
Table 114: Aerobridge charges for Third Control Period proposed to be considered by the Authority	118
Table 115: User Development Fees proposed to be considered for the Third Control Period by the Authority.....	118

Table 116: Capital additions approved by the Authority in Second Control Period and capitalised in Second Control Period	120
Table 117: Capital additions not mentioned in Second Control Period submission but claimed by AAI in true-up.....	122

1. BRIEF ON NETAJI SUBHAS CHANDRA BOSE INTERNATIONAL AIRPORT

1.1. Introduction

- 1.1.1. Netaji Subhash Chandra Bose International Airport (NSCBIA), earlier known as Kolkata International Airport, is located in Dum Dum area, approximately 17 km from city centre of Kolkata. NSCBIA has been the fifth busiest airport in the country in pre-pandemic period (FY 2019-20), after the airports in Delhi, Mumbai, Bangalore and Chennai. It is the only international airport operating in West Bengal. Kolkata is the third-most populous metropolitan city in India. It is the primary business, commercial and financial hub of Eastern India. It is also well known for its art, culture and tourism. NSCBIA, Kolkata is the nearest airport to Santiniketan, a UNESCO world heritage site. It also connects tourist destinations and pilgrimage sites such as Belur Math, Dakshineswar and Kali temples, Howrah Bridge and Victoria Memorial, thus attracting both domestic and international passengers.
- 1.1.2. NSCBIA, Kolkata is owned and operated by the Airports Authority of India (AAI), a *Miniratna* Category-1 Public Sector Enterprise. AAI was constituted by an Act of Parliament and was established in 1995 through the merger of erstwhile National Airports Authority and International Airports Authority of India. The merged entity—AAI was entrusted with the responsibility of creating, upgrading, maintaining and managing civil aviation infrastructure in India, both on ground and in air space.
- 1.1.3. The functions of AAI, as per its website (as accessed on 16 September 2021), are as follows:
- Design, Development, Operation and Maintenance of international and domestic airports and civil enclaves.
 - Control and Management of the Indian airspace extending beyond the territorial limits of the country, as accepted by ICAO.
 - Construction, Modification and Management of passenger terminals.
 - Development and Management of cargo terminals at international and domestic airports.
 - Provision of passenger facilities and information system at the passenger terminals at airports.
 - Expansion and strengthening of operation area, viz. Runways, Aprons, Taxiway etc.
 - Provision of visual aids.
 - Provision of Communication and Navigation aids, viz. ILS, DVOR, DME, Radar etc.
- 1.1.4. The existing infrastructure and technical details of NSCBIA, Kolkata are as given below:

Table 1: Infrastructure and Technical details of NSCBIA, Kolkata

Technical Details of NSCBIA, Kolkata	
Particulars	Details
Total Airport Area	1641.34 acres
Runway Orientation and length	Primary: 01R-19L : 3633m Secondary: 01L-19R : 3271m
No. of Apron Bays	63
No. of Taxi Tracks	12
Aerodrome Category	4E
Navigational Aids	LOC 01R, LOC 19L, LOC 19R GP 01R, GP 19L, GP 19R DME ILS 01R, DME ILS 19L, DME ILS 19R DVOR, DME Locator ILS 01R, Locator ILS 19L
Operational Hours	24 Hrs

1.1.5. The terminal building details of NSCBIA, Kolkata are tabulated below:

Table 2: Terminal Building details of NSCBIA, Kolkata

Particulars	Details
Terminal Building:	Integrated
Area:	2,24,162 sq. m.
Immigration Counters	Arrival – 28 Departure – 14
Customs Counters	1 No. (Green Channel) 4 No. (Red Channel)
Security Counters	Security frisking booths at Terminal Building: 29 – Domestic & 8 – International
Departure Conveyor	8 No.s
Arrival Conveyor	16 No.s
Peak hour passenger capacity	8460 PAX based on IMG norms
No. of Check-in counters (CUTE)	128 Nos. (80 Dom. + 48 Int.)
Total Area of Car Parking	40,715 sq. m.

1.1.6. As per the AERA (Amendment) Act 2019, a “major airport” means any airport which has or is designated to have annual passenger throughput in excess of three and a half million or any other airport as the Central Government may by notification, specify as such. NSCBIA, Kolkata is a major airport as the design capacity of the airport is 26 MPPA and it handled 22.02 MPPA in FY 2019-20, with domestic traffic contributing 86.7% of the total passenger traffic between FY 2016-17 and FY 2019-20. The traffic handled by NSCBIA, Kolkata in the Second Control Period is given below:

Table 3: Passenger and ATM traffic at NSCBIA, Kolkata during Second Control Period

FY ending March 31	2017	2018	2019	2020	2021	Total
Passenger Traffic (Mn)						
Domestic	13.59	17.31	19.09	19.08	7.59	76.65
International	2.23	2.59	2.79	2.94	0.14	10.69
Total	15.82	19.89	21.88	22.02	7.73	87.33
Air Traffic Movement ('000s)						
Domestic	105.78	126.97	139.02	141.79	66.42	579.98
International	18.37	21.83	23.01	23.97	5.75	92.94
Total	124.15	148.80	162.03	165.76	72.17	672.91

2. MULTI-YEAR TARIFF PROPOSAL SUBMISSION BY AAI FOR NETAJI SUBHAS CHANDRA BOSE 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 legislature has provided policy guidance to the Authority regarding determination of tariff for aeronautical services under the provisions of the AERA Act, 2009. The Authority is required to adhere to this legislative policy guidance in discharge of its functions in respect of major airports. These functions are indicated in Section 13 (1) of the AERA Act, 2008, which reads as under:

- 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 for improving efficiency;
 - iv. Economic and viable operation of major airports;
 - v. Revenue received from services other than the aeronautical services;
 - vi. The Concession offered by the Central Government in any agreement or memorandum of understanding or otherwise; and
 - vii. Any other factor which may be relevant for the purposes of this Act.
- b) To determine the amount of the development fees in respect of major airports;
- c) To determine the amount of the passenger service fee levied under Rule 88 of the Aircraft Rules, 1937 made under the Aircraft Act, 1934 (22 of 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 authorised by it in this behalf;
- e) To call for such information as may be necessary to determine the tariff under clause (a).
- f) To perform such other functions relating to tariff, 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. AERA has categorised the aeronautical services, whereby it is required to determine tariff, as given below:

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

2.1.4. All the assets, expenses, and revenues pertaining to ANS are considered separately by MoCA while determining tariff for ANS services. Further, the tariff for ANS services is determined at the central level to ensure uniformity across all airports in the country. Hence, the Authority determines the tariff for aeronautical services of the airport operator by excluding the revenues and expenses for ANS.

2.1.5. AERA has, after extensive stakeholder consultation, finalised its approach to the economic regulation of services categorised in para 2.1.3 above. Accordingly, AERA has issued Detailed Guidelines laying down information requirements, periodicity, and procedure for tariff determination. The details of Orders and Guidelines issued in this respect include the following:

- 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 (“Aligning certain aspects of AERA’s regulatory approach with the provisions of the National Civil Aviation Policy – 2016”).
- v. Order No. 20/2016-17 dated 31.03.2017 (“Allowing concession to RCS flights under Regional Connectivity Scheme (RCS)”).
- 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 (“Determination of FRoR to be provided on the cost of land incurred by various Airport Operators in India”).

2.1.6. NSCBIA, Kolkata is a major airport under the provisions of the AERA Act 2008 and the subsequent AERA (Amendment) Act 2019 that revised the annual passenger handling threshold definition of major airports from 1.5 million to 3.5 million. Pursuant to the AERA Act 2008, the Authority issued guidelines for the purpose of determination of aeronautical tariffs at major airports. NSCBIA, Kolkata had submitted Multi Year Tariff Proposals (MYTP) for the First Control Period from FY 2011-12 to FY 2015-16 and Second Control Period from FY 2016-17 to FY 2020-21. The Authority issued Order No. 35/2012-13 dated 24th January 2013 for the First Control Period and Order No. 23/2017-18 dated 27th November 2017 for the Second Control Period which was applicable from 01st December 2017. The MYTP for the Third Control Period submitted by AAI for NSCBIA, Kolkata is available on the AERA website.

2.2. Methodology for Tariff Determination

2.2.1. The methodology adopted by the Authority to determine Aggregate Revenue Requirement (ARR) is based on AERA Act, 2008 and AERA (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011 dated 28th February 2011.

2.2.2. As per the guidelines, the Authority adopted the hybrid-till approach (as per AERA vide Order No. 14/2016-17 dated 12th January 2017) for tariff determination at NSCBIA, Kolkata for the Second Control Period. Under this approach, only 30% of the non-aeronautical revenue is considered for cross-subsidising aeronautical charges. The Authority has considered the same methodology in the true-up of the Second Control Period and for tariff determination in the Third Control Period.

2.2.3. The ARR under hybrid till shall be determined as expressed below:

$$ARR = \sum_{t=1}^5 (ARR_t) \text{ and}$$

$$ARR_t = (FROr \times RAB_t) + D_t + O_t + T_t - 30\% \text{ of } NAR_t$$

Where:

- t is the Tariff Year in the Control Period;
- ARR_t is the Aggregate Revenue Requirement for year t ;
- $FROr$ is the Fair Rate of Return for the control period;
- RAB_t is the Regulatory Asset Base for the year t ;
- D_t is the Depreciation corresponding to the RAB for the year t ;
- O_t is the Operation and Maintenance (O&M) Expenditure for the year ' t ', which includes all expenditures incurred by the Airport Operator(s) including expenditure incurred on statutory operating costs and other mandate operating costs;
- T_t is the corporate tax for the year t paid by the airport operator on the aeronautical profits; and
- NAR_t is revenue from services other than aeronautical services for the year t

2.2.4. Based on the ARR, a yield per passenger is calculated as per formula given below:

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

Where:

- $PV(ARR_t)$ is the present value of ARR for all tariff years in the Control Period. 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 tariff year t

2.2.5. AAI provides Air Navigation Services (ANS) in addition to landing, parking and other Aeronautical services at NSCBIA, Kolkata. AAI's tariff proposal does not consider revenues, expenditure, and assets on account of ANS. This Consultation Paper discusses the determination of tariffs for Aeronautical services at the airport excluding ANS.

2.2.6. AAI has also submitted that all cargo operations have been transferred to AAI Cargo Logistics and Allied Services (AAICLAS), its wholly owned 100% subsidiary. AAI's tariff proposal for NSCBIA, Kolkata does not include expenditure and assets related to cargo operations. However, AAI has considered a revenue share of 30% from AAICLAS as part of the aeronautical revenues as per AAI's internal agreement with AAICLAS.

2.2.7. This Consultation Paper discusses tariff determination for aeronautical services at NSCBIA, Kolkata excluding cargo operations. The tariffs related to cargo operations at NSCBIA, Kolkata will be determined separately since its operations are carried out by AAICLAS.

2.2.8. As per proviso to clause 3.1 of the Airport Guidelines, Airport Operator(s) are required to submit to the Authority for its consideration, an MYTP for the respective Control Periods within the due date as specified by the Authority. AAI has submitted the MYTP for the Third Control Period from FY 2021-22 to FY 2025-26 vide its e-mail dated 25 August 2021 ("MYTP of NSCBI Airport, Kolkata for the Third Control Period (01.04.2021 to 31.03.2026) – Reg"). The document is available on AERA website along with the Consultation Paper.

- 2.2.9. The Authority had appointed an independent consultant, M/s Ernst and Young LLP (EY LLP) to assess the MYTP submitted by the airport operator of Netaji Subhas Chandra Bose International Airport (CCU), Kolkata. Accordingly, M/s EY LLP has assisted the Authority in examining the MYTP of the airport operator, including verifying the data from various supporting documents submitted by the airport operator, examining the regulatory building blocks in tariff determination, conducting a site-visit in October 2021, and ensuring that the treatment given to it is consistent with the Authority's methodology, approach, etc.
- 2.2.10. To review the submissions made by AAI, further details and clarifications were sought by AERA. Details have been submitted by AAI on various dates between August and November 2021.

2.3. Control Period

- 2.3.1. As per AERA guidelines issued on 28th February 2011, 'Control Period' refers to a period of five tariff years during which the Multi Year Tariff Order (MYTO) and tariff(s) as determined by the Authority pursuant to such order shall subsist. The Second Control Period commences from 1st April 2016 and the Third Control Period commences from 1st April 2021.

2.4. Construct of the Consultation Paper

- 2.4.1. This Consultation Paper is structured under various chapters; Against each of the components submitted by AAI, the Authority provides its analysis and proposals.
- 2.4.2. In Chapter 3, the Authority lists out AAI's submissions on true-up for regulatory building blocks, along with the summaries of decisions taken by the Authority as per the Second Control Period Order. This is followed by the Authority's examination of and proposals regarding true-up of the regulatory building blocks for the Second Control Period.
- 2.4.3. Chapters 4-12 summarise AAI's submissions and the Authority's examination of AAI's submissions along with its proposals with respect to various regulatory building blocks in the Third Control Period.
- 2.4.4. Chapter 13 presents AAI's submission regarding the Aggregate Revenue Requirement for the Third Control Period. This is followed by the Authority's proposal to consider a revised ARR based on the examination of various regulatory building blocks for the Third Control Period.
- 2.4.5. Chapter 14 examines aeronautical revenue for the Third Control Period submitted by AAI.
- 2.4.6. Chapter 15 summarises the Authority's proposals regarding each of the regulatory building blocks.
- 2.4.7. The Authority had also commissioned a study with respect to NSCBIA, Kolkata viz., "Study of Operations and Maintenance Expenses of Netaji Subhas Chandra Bose International Airport, Kolkata," for the purpose of tariff determination. The recommendations of this study have been used in this Consultation Paper.
- 2.4.8. **The Authority seeks views of stakeholders regarding the proposals put forward for tariff determination for the Third Control Period in this Consultation Paper.**

3. TRUE UP FOR THE SECOND CONTROL PERIOD

3.1. Issues raised by AAI pertaining to true-up for the Second Control Period

3.1.1. True Up for the Second Control Period is calculated as the difference between:

- Permissible aeronautical revenue receivable calculated based on the actual traffic and financials; and
- Actual aeronautical revenue received by AAI for the Second Control Period.

3.1.2. AAI has, in its MYTP, given its proposal for true-up under the following regulatory building blocks:

- a) Regulatory Asset Base
- b) Fair Rate of Return
- c) Aeronautical Depreciation
- d) Operational and Maintenance Expenses
- e) Non-aeronautical Revenue
- f) Aeronautical Taxes

3.1.3. The Authority has examined the issues in detail and covered the analysis as follows:

- a. Record AAI's submission regarding different regulatory building blocks for true-up of the Second Control Period.
- b. Recap the Authority's decisions regarding regulatory building blocks in the tariff order of the Second Control Period.
- c. Provide the Authority's examination and proposals regarding the true-up calculation of each regulatory block for the Second Control Period.

3.1.4. The Authority's analysis of true-up for the Second Control Period, building block-wise has been discussed in detail in the following sections:

3.2. True-up of Traffic for the Second Control Period

AAI's submissions regarding the Traffic Projections for the Second Control Period

3.2.1. AAI has submitted the actual traffic for the Second Control Period which is tabulated below:

Table 4: Traffic submitted by AAI for true up of Second Control Period

FY ending March 31	2017	2018	2019	2020	2021	Total
Passenger Traffic (Mn)						
Domestic	13.59	17.31	19.09	19.08	7.34	76.41
International	2.23	2.59	2.79	2.94	0.11	10.66
Total	15.82	19.89	21.88	22.02	7.44	87.05
Air Traffic Movement ('000s)						
Domestic	105.78	126.97	139.02	141.79	62.80	576.36
International	18.37	21.83	23.01	23.97	6.20	93.38
Total	124.15	148.80	162.03	165.76	69.00	669.74

Decisions taken by the Authority regarding Traffic Projections as per Tariff Order for the Second Control Period

- 3.2.2. The Authority had evaluated the 5-year (FY 2010-11 to FY 2015-16) and 10-year (FY 2005-06 to FY 2015-16) CAGRs during the tariff determination of the Second Control Period. Based on the then introduced Regional Connectivity Scheme (RCS) by the Government of India and increase in passenger traffic, the Authority had decided to adopt growth rates for domestic passenger and ATM traffic FY 2017-18 to FY 2020-21 based on the 10-year CAGR.
- 3.2.3. Additionally, the Authority had decided to consider the growth rate as submitted by AAI for international passenger and ATM traffic due to the volatility of international traffic in the First Control Period.
- 3.2.4. Further, the Authority had proposed to true-up traffic as per actual growth achieved during the Second Control Period at the time of tariff determination of the Third Control Period.
- 3.2.5. The traffic projections considered by the Authority at the time of tariff determination for the Second Control Period are given in the table below:

Table 5: Traffic considered by the Authority as per Tariff Order for the Second Control Period

FY ending March 31	2017	2018	2019	2020	2021	Total
Passenger Traffic (Mn)						
Domestic	13.59	15.11	16.81	18.69	20.79	84.99
International	2.23	2.39	2.55	2.73	2.92	12.82
Total	15.82	17.50	19.36	21.42	23.71	97.81
Air Traffic Movement ('000s)						
Domestic	105.78	113.43	121.63	130.42	139.85	611.11
International	18.37	19.29	20.25	21.27	22.33	101.51
Total	124.15	132.72	141.89	151.69	162.18	712.63

Authority's examination of Traffic Projections for the Second Control Period

- 3.2.6. The Authority has noted that the traffic projections for FY 2020-21 were estimated by AAI at the time of submitting the MYTP. The Authority proposes to consider the actual FY 2020-21 traffic volumes as obtained from the AAI website (as on 30 October 2021). A summary of the same is provided below.

Table 6: Actual traffic volumes for FY 2020-21 as considered by the Authority

FY ending 31 March	Formula	2021
Domestic passengers (In Millions)		
As per AAI estimates	A	7.34
As per actuals	B	7.59
Difference	A-B	(0.25)
Difference (%)	$(1-B/A) * 100$	(3.41)
International Passengers (In Millions)		
As per AAI estimates	C	0.11
As per actuals	D	0.14
Difference	C-D	(0.03)
Difference (%)	$(1-D/C) * 100$	(27.27)

FY ending 31 March	Formula	2021
ATM Domestic (in '000s)		
As per AAI estimates	E	62.80
As per actuals	F	66.42
Difference	E-F	(3.62)
Difference (%)	(1-F/E) *100	(5.76)
ATM International (in '000s)		
As per AAI estimates	G	6.20
As per actuals	H	5.75
Difference	G-H	0.45
Difference (%)	(1-H/G) *100	7.25

- 3.2.7. In addition to the above change proposed, the Authority notes that the submitted traffic volumes were in line with the actual traffic volumes at NSCBIA, Kolkata from FY 2016-17 to FY 2019-20. However, due to the effects of the Covid-19 pandemic, traffic volumes were less than what was approved for FY 2020-21 in the tariff order of the Second Control Period. The Authority proposes to consider domestic passenger traffic of 7.59 million and international passenger traffic of 0.14 million for FY 2020-21 as shown in Table 7:

Table 7: Traffic volumes proposed to be considered for true up of the Second Control Period by the Authority

FY ending March 31	2017	2018	2019	2020	2021	Total
Passenger Traffic (Mn)						
Domestic	13.59	17.31	19.09	19.08	7.59	76.65
International	2.23	2.59	2.79	2.94	0.14	10.69
Total	15.82	19.89	21.88	22.02	7.73	87.33
Air Traffic Movement ('000s)						
Domestic	105.78	126.97	139.02	141.79	66.42	579.98
International	18.37	21.83	23.01	23.97	5.75	92.94
Total	124.15	148.80	162.03	165.76	72.17	672.91

- 3.2.8. The Authority proposes to consider the traffic volume for true-up of the Second Control Period based on the above analysis.

3.3. True-up of Regulatory Asset Base

AAI's submissions regarding true up of Regulatory Asset Base (RAB) for the Second Control Period

- 3.3.1. Opening RAB as submitted by AAI for the Second Control Period is given in the table below. It may be noted that the opening RAB for FY 2016-17 includes cargo assets as per the decision taken by the Authority in the Second Control Period tariff order.

Table 8: Opening RAB submitted by AAI for true up of Second Control Period

Particulars (Rs. Cr.)	Value as on 01.04.2016
Runways, Taxiways, Aprons	123.85
Terminal/Other Buildings	1,539.81
Electrical Installations	380.63
Others including - Roads, Bridges, Culverts; Cargo Building; Residential Building; Boundary walls; Plant and machinery; etc.	266.70

Particulars (Rs. Cr.)	Value as on 01.04.2016
Total	2,310.99

- 3.3.2. After incorporating the revised capital additions for the true-up period as per AAI submitted vide email dated 27.10.2021 (“Capex reconciliation of FY 2016-17 to FY 2020-21: Kolkata”), the Authority notes that AAI has submitted that the total capital additions for the Second Control Period, from FY 2016-17 to FY 2020-21, amounting to Rs. 692.44 Cr., of which capital expenditure for FY 2020-21 is on estimated basis. Year wise capital additions are given in the table below:

Table 9: Aeronautical Asset Addition submitted by AAI for true up of Second Control Period

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Additions to Aeronautical Assets	55.52	242.58	144.03	129.49	120.83	692.44

- 3.3.3. Considering the above asset additions, the average RAB for the Second Control Period as submitted by AAI is given below:

Table 10: RAB submitted by AAI for true up of Second Control Period

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Opening Aeronautical RAB (A)	2,310.99	2,188.30	2,278.69	2,258.90	2,212.97	-
Aeronautical Assets Capitalised during the year (B)	55.52	242.58	144.03	129.49	120.83	692.44
Disposals/Transfers (C)	(1.44)	(0.19)	(0.39)	(3.78)	-	(5.81)
Depreciation (D)	(147.27)	(152.01)	(163.42)	(171.63)	(183.02)	(817.34)
Closing Aeronautical RAB (A+B+C+D) [E]	2,217.80	2,278.69	2,258.90	2,212.97	2,150.78	-
Average RAB [(A+E)/2] [F]	2,264.39	2,233.49	2,268.79	2,235.94	2,181.88	-
Adjustment for Closing Cargo RAB due to formation of AAICLAS [G]	29.49					
Adjusted Closing RAB for FY 2016-17 after excluding Cargo RAB [H] = [E-G]	2,188.30					

Decisions taken by the Authority regarding Regulatory Asset Base as per Tariff Order for the Second Control Period

- 3.3.4. Relevant decisions taken by the Authority at the time of tariff determination for the Second Control Period are given below:
- “6.a. The Authority decides to consider allowable project cost of Rs. 567.3 Cr and accordingly to reckon the amount of Rs. 567.3 Cr. as addition to total assets during the 2nd control period.”
 - “6.b. The Authority directs AAI to undertake user stakeholder consultation process for major capital expenditure items as per the Guidelines.”
 - “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 capitalisation of underlying assets in a given year.”
- 3.3.5. Aeronautical RAB considered by the Authority for tariff determination in the Second Control Period is given in the table below:

Table 11: RAB considered by the Authority as per Tariff Order for the Second Control Period

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Opening Aeronautical RAB (A)	2,311.0	2,169.4	2,273.9	2,394.8	2,231.5	-
Aeronautical Assets Capitalised during the year (B)	31.2	255.1	281.1	0.0	0.0	567.3
Disposals/Transfers (C)	-	-	-	-	-	-
Depreciation (D)	146.2	150.6	160.1	163.3	162.1	782.3
Closing Aeronautical RAB (A+B-C-D) (E)	2,196.0	2,273.9	2,394.8	2,231.5	2,069.4	-
Average RAB (F) = (A+E)/2	2,253.5	2,221.6	2,334.3	2,313.2	2,150.5	-
Adjustment to Closing RAB of FY 2016-17 due to Cargo RAB (G)	26.6					
Adjusted Closing RAB for FY 2018-19 including T-4 assets from 01.10.2018 (other half) adjusted for depreciation (H) = (E - G)	2,169.4					

Authority's examination of the Regulatory Asset Base for the Second Control Period**Opening RAB for FY 2016-17**

- 3.3.6. The Authority notes that the opening RAB reported by AAI includes the assets pertaining to the cargo operations of the airport and is the same as the approved RAB as computed in the Second Control Period Order. Thus, the Authority does not propose any adjustment to the Opening RAB for FY 2016-17.

Aeronautical Capital Additions

- 3.3.7. The Authority has analysed the aeronautical capital additions submitted by AAI for the true-up of the Second Control Period. For the purpose of this analysis, the Authority has grouped the approved and actual capital additions in the following sections:

- I. Capital Additions approved in the Second Control Period Order and commissioned in the Second Control Period
- II. Capital Additions approved in the Second Control Period Order but deferred to the Third Control Period
- III. Capital Additions approved in the Second Control Period Order but dropped
- IV. Capital additions incurred in the Second Control Period but not approved in the Second Control Period Order
- V. Capital works completed in the previous control periods but capitalised in the Second Control Period

Table 12: Summary of aeronautical capital additions for the Second Control Period as submitted by AAI

Ref.	Particulars (in Rs. Cr.)	Approved by the Authority in the SCP Order	Actual Capitalisation by AAI in SCP
I	Approved and commissioned in SCP	243.72	260.20
II	Approved in SCP but deferred to TCP	110.61	-
III	Approved in SCP but dropped	210.92	-
IV	Not approved in SCP but capitalised	-	360.36

Ref.	Particulars (in Rs. Cr.)	Approved by the Authority in the SCP Order	Actual Capitalisation by AAI in SCP
V	Completed in FCP and put to use in SCP*	-	23.43
	Financing Allowance	-	45.42
	Cargo	-	3.03
	Capital expenditure later classified as O&M	2.09	-
	Grand Total	567.34	692.44

*Capital works could not be capitalised in FCP as they were under arbitration (arbitration concluded in SCP)

- 3.3.8. In the subsequent paragraphs, the Authority has discussed the groups listed above in the same sequence. After the group-wise detailing, the Authority has also provided a reconciliation of the approved capital additions in the Second Control Period Order (which amounts to Rs. 567.34 Cr.) and the actual capital additions in the Second Control Period (amounting to Rs. 692.44 Cr.).

I. Aeronautical capital additions approved in the Second Control Period Order and commissioned in the Second Control Period

- 3.3.9. Details of such capitalisation is given below:

- Aeronautical capital additions approved by the Authority for the Second Control Period: Rs. 567.34 Cr.
- Approved capital cost of the projects executed by AAI within (a): Rs. 243.73 Cr.
- Capital cost incurred by AAI against the approved capital costs of projects: Rs. 260.20 Cr.

- 3.3.10. Details of the capital works approved by the Authority in the Second Control Period Order and capitalised by AAI in the Second Control Period, along with justifications as given by AAI (provided in Annexure III-A).

- 3.3.11. The aggregate over-expenditure of Rs. 16.48 Cr. is a mix of saving on some individual capital works and over-expenditure in other approved capital works. The main cost overruns were incurred in the reconstruction of broken slab in the F Taxi-track and upgradation of the drainage system on the airside. AAI submitted that the over-expenditure in reconstructing the F taxi track was due to an increase in the scope of work. Further, it was also submitted that the increase in cost of the upgradation of drainage system was due to an increase in the area covered, as per the operational requirements, based on a study carried out by Jadavpur University. The Authority also noted that there was cost saving in a few capital works during the Second Control Period. However, such cost savings were on account of minor variations in the scope of work.

- 3.3.12. The Authority noted that other savings/cost over-runs were due to the tendering processes for capital works in the Second Control Period. The following table summarises the capital additions that were approved in the Second Control Period Order and actually capitalised.

Table 13: Aeronautical Capital Additions approved and commissioned in the Second Control Period proposed to be considered for true up of the Second Control Period by the Authority

Particulars (in Rs. Cr.)	Sanctioned Amount (1)	Incurred Amount (2)	Cost Overrun [(2) – (1)]
Capital Additions	243.73	260.20	16.48

- 3.3.13. The Authority proposes to accept the capital additions and cost incurred thereof as submitted by AAI in the MYTP for the Second Control Period.

II. Aeronautical capital additions approved in the Second Control Period Order but deferred to the Third Control Period

- 3.3.14. The Authority examined the capital additions postponed to the Third Control Period. The Authority noted that Rs. 110.61 Cr. worth of capital additions approved in the Second Control Period were deferred to the Third Control Period. A large part of the postponed amount is attributed to a delay in the completion of work. For instance, out of the Rs. 110.61 Cr., work regarding the extension of the F-taxitrack (Rs. 37.22 Cr.) and resurfacing of the secondary runway (Rs. 40 Cr.) has commenced but is yet to be capitalised since the work could not be completed in the Second Control Period. Further, upon enquiry, AAI explained that extension of the apron on the south of the integrated terminal building (Rs. 22.49 Cr.) could not be completed since the abandoned aprons had to be dismantled. The normative cost of the capital works that are postponed to the Third Control Period are discussed in detail in the RAB and Depreciation chapter pertaining to the Third Control Period.

III. Aeronautical capital additions approved in the Second Control Period Order but dropped

- 3.3.15. The Authority noted that AAI had dropped Rs. 210.92 Cr. worth of capital additions that were approved in the Second Control Period.
- 3.3.16. From the Rs. 210.92 Cr. worth of dropped capital works, a large portion is attributed to the dropping of extension of airside corridor in the terminal building for both international and domestic sections. AAI submitted that this work was dropped since the planning department has proposed a new plan (envisaged to be capitalised in the Third Control Period) to increase the passenger handling capacity of the terminal building by extending the integrated terminal building on the domestic and international sides and filling cut outs to extend covered terminal building area in the Security Handling Area (SHA). Another major work regarding the construction of remote apron bays on the east side of the main runway was dropped since it was in very close proximity to the outer boundary wall and, as a result, was not approved by BCAS.

IV. Aeronautical capital additions incurred in the Second Control Period but not approved in the Second Control Period Order

- 3.3.17. The Authority noted that AAI has capitalised Rs. 360.36 Cr. worth of assets that were not approved in the Second Control Period Order. A list of the same is given in the following table.

Table 14: Capital additions incurred in the Second Control Period but not approved in the Second Control Period Order

S. No.	Particulars (in Rs. Cr.)	Amount
	Security requirements	
1	SITC Inline XBIS TSA/STANDARD 3 (EU) (7 units purchased in FY 2019-20)	47.22
2	6 Automatic Tray Return System with DV X-ray	9.29
3	Supply of Threat Containment Vessel	8.69
4	Biometric Access Control System - Kolkata	6.98
5	SITC Inline XBIS TSA/STANDARD 3 (EU) (1 unit purchased in FY 2020-21)	6.13
	Sub-total (1 to 5)	78.31
	Operational requirements	

S. No.	Particulars (in Rs. Cr.)	Amount
6	Construction of 3 hangars with associated apron and taxi-tack towards Narayanpur side.	30.01
7	11,382 No. Trolleys	26.40
8	Construction of 2 additional 4C parking bays	14.73
9	Fall Protection & walkway system for the integrated terminal building	14.62
10	Providing 8th Departure Conveyor line	14.33
11	Construction of road parallel to Main R/w approaching overshoot/ undershoot area for passage of CFTs	9.85
12	Widening & Strengthening of Perimeter Road	8.54
13	Signage at T2, wayfinding Signages. (Elect. Work)	8.54
14	Network Component (Active) @ Data Centre	6.98
15	1000 Three-Seater Chairs for the Terminal	6.10
16	Taxiway A between junction of C Taxi to F Taxi & G Taxi	5.72
17	Modification of existing bus lounge i/c providing transit lounge at arrival level of NSCBI Airport, Kolkata	5.59
18	Rubber Removal Machine (AR 346) (as per DGCA mandate)	5.29
	Sub-total (6 to 18)	156.70
	Other works	
19	Other works (below Rs. 5 Cr.)	125.35
	Total	360.36

3.3.18. The Authority has analysed the capital additions that were not approved in the Second Control Period but executed. The Authority also notes that the works related security worth Rs. 78.31 Cr. were incurred to adhere to the BCAS guidelines released during the Second Control Period (hence, could not be envisaged when the Second Control Period Order was issued). The Authority also noted that among other works that were not approved but done, a significant number of works were a pre-requisite to maintain the operational efficiency at the airport. However, the Authority proposes to rationalise the costs of certain non-security capital works based on its analysis. The details regarding the same are provided in the table below:

Table 15: Capital additions with cost adjustment proposed to be considered for true up of the Second Control Period by the Authority

S. No.	Particulars (Rs. in Cr.)	As per AAI	As proposed by the Authority	Diff.	Reason
1	Signage of T2, wayfinding Signages. (Elect. Work)	8.54	6.94	1.60	The Authority takes note of AAI's email dated 11.10.2021 ("Kolkata MYTP: Annexure I – TCP capex status") wherein the costs of the S No. (1), (2) and (3) have been revised for the true-up in the Second Control Period.
2	Energy Conservation: Replacement of conventional luminaries with LED lights	2.98	2.43	0.55	
3	Provision of Air Conditioning	0.19	0.18	0.01	
4	BR Helmets	0.06	-	0.06	It is noted that the purchase of BR Helmets was considered as an operating expense. In order to avoid double-counting, the Authority proposes to not allow this as a capital addition.
5	Bituminous Road at AAI Residential Colony	0.58	0.57	0.01	It is noted that the amount submitted by AAI for the construction of a

S. No.	Particulars (Rs. in Cr.)	As per AAI	As proposed by the Authority	Diff.	Reason
					bituminous road was considered as completely aeronautical. The Authority proposes to apply the employee ratio to the cost since the location of work is in the AAI residential colony.
6	LG 43" Entertainment TV (30 No.s) for retiring room	0.10	-	0.10	It is noted that the installation of 30 televisions is considered by AAI to be aeronautical. Since capital works pertaining to the retiring room are non-aeronautical in nature, the Authority proposes to not allow the same in the true-up of the Second Control Period.
7	Total (1 to 6)	12.93	10.12	2.33	

3.3.19. Further, the Authority proposes to apply the terminal building ratio of 92.5%:7.5% as approved in the Second Control Period Order on common capital additions (as discussed in Para 3.3.27). Consequently, the capital additions allocated to aeronautical assets are further reduced by Rs. 0.28 Cr.

3.3.20. Details of the capital works not approved by the Authority in the Second Control Period Order and capitalised by AAI in the Second Control Period, along with justifications as given by AAI are provided in Annexure III-B.

3.3.21. Based on the above analysis, the Authority proposes the capitalisation of Rs. 357.75 Cr. (Rs. 360.36 Cr. minus (Rs. 2.33 Cr. and Rs. 0.28 Cr.)) in this category of works.

V. Aeronautical capital additions completed in the First Control Period but undergoing Arbitration

3.3.22. The Authority also notes that Rs. 23.43 Cr. worth of assets that were completed in the First Control Period but were capitalised in the Second Control Period since they were undergoing arbitration which got concluded in the Second Control Period. A detailed list of the same is provided in Table 17 (V).

3.3.23. The Authority proposes to consider the capital addition of Rs. 23.01 Cr. in the true-up calculation of the Second Control Period after accounting for a difference of Rs. 0.4 Cr. due to the use of terminal building ratio of 92.5%:7.5% as approved in the Second Control Period.

Financing Allowance for the Second Control Period

3.3.24. The Authority considers that giving an assured return on the equity investment even on the work-in-progress assets would result in reducing the risks associated with equity investment in capital projects. Further, the airport operator is given a fair rate of return on equity when the capital assets are capitalised.

3.3.25. Further, the Authority notes that developments at greenfield airports inherently take longer durations to commission and operationalise. Thus, airport operators would have to wait for a considerable duration before getting returns on large capital projects. Keeping this in view, the Authority had

earlier provisioned for financing allowance in initial stages to such airports. It may be further noted that the Authority has never provided financing allowance in the case of brownfield airports. The Authority also notes that NSCBIA, Kolkata, being one of the oldest airports in India, would not be eligible for such an allowance on the equity portion of newly funded capital projects. Financing allowance is a notional allowance and is different from the actual investment incurred by airport operators which includes interest during construction, amongst other things. Therefore, the provision of financing allowance on the entire capital work in progress would lead to a difference between the projected capitalisation and actual cost incurred, especially when the airport operator funds the projects through a mix of equity and debt.

Allocation of Assets in the Second Control Period

- 3.3.26. The Authority has noted that allocation ratios between aeronautical and non-aeronautical assets have been used for common assets:

Table 16: Comparison of Allocation ratios as approved by the Authority and as submitted by AAI

S No.	Allocation Ratio (in %)	As submitted by AAI	Approved by Authority in SCP Order (excl. Cargo)	Proposed to be considered by the Authority in true-up of Second Control Period
1	TBLR	94.35	92.50	92.50
2	EHCR	98.27	98.27	98.27

- 3.3.27. The Authority notes a difference between the Terminal Building Ratio (TBLR) as submitted in the MYTP submission and the TBLR approved in the Second Control Period Order. Since NSCBIA, Kolkata has not witnessed capitalization/added new areas in the terminal building, the TBLR ratio is unlikely to undergo any changes vis-à-vis the approved ratio in the Second Control Period. Thus, the Authority proposes to use the approved TBLR and Employee Ratio to segregate the value of common assets.

The total aeronautical capital additions considered by the Authority for true-up of the Second Control Period

- 3.3.28. Based on the above analysis from para 3.3.6 to para 3.3.27, the Authority proposes to allow the following aeronautical capital additions for the true-up of the Second Control Period:

Table 17: Summary of aeronautical capital additions proposed to be considered for true-up of the Second Control Period by the Authority

Ref.	Particulars (in Rs. Cr.)	Approved by the Authority in the SCP Order	Actual Capitalisation by AAI in SCP	Capitalisation proposed to be considered by the Authority for true-up in SCP
I	Approved and commissioned in SCP			
I	15 MW Ground mounted solar power plant	81.07	81.84	81.84
	CAT IIIB: Lighting work for main runway	61.68	52.78	52.78
	CAT IIIB: Runway resurfacing and RCC drain		0.96	0.96

Ref.	Particulars (in Rs. Cr.)	Approved by the Authority in the SCP Order	Actual Capitalisation by AAI in SCP	Capitalisation proposed to be considered by the Authority for true-up in SCP
	CAT IIIB: Power supply for sub-station equipment (DG set)		5.16	5.16
	Construction of isolation bay	31.00	32.96	32.96
	Re-construction of F-taxi track	5.00	15.47	15.47
	8 th departure conveyor system at NITB	11.90	10.11	10.11
	In-motion weighing scale at S-Lifter (BHS conveyor)		1.08	1.08
	Redundancy between departure line 8 & 6 prior to x-ray		0.83	0.83
	RCC drain at northern side of operational area	10.32	9.85	9.85
	Upgradation of drainage system		4.77	4.77
	Construction of sub-fire station	7.12	6.83	6.83
	Diversion of perimeter road (ground mounted solar panels)	4.38	4.81	4.81
	Construction of underground sump, borewell		2.26	2.26
	Operational area development (ground mounted solar panels)		0.83	0.83
	Other works (below Rs. 3 Cr.)	31.26	29.66	29.62*
	Sub-total (A)	243.72	260.20	260.15
II	Approved in SCP but deferred to TCP			
II	Extension of F-taxi track towards northern side	37.22	-	-
	Resurfacing secondary runway 19R/01L	40.00	-	-
	Widening of E-taxitrack and construction of fillet for movement of C-category aircrafts	3.00	-	-
	Extension of apron on south side of NITB	22.49	-	-
	Construction of emergency medical unit	0.90	-	-
	Augmentation of power supply - east side of runway	7.00	-	-
	Sub-total (B)	110.61	-	-
III	Approved in SCP but dropped			
III	Construction of remote bays - eastern side of main runway	69.13	-	-
	Reconstruction of G-taxi-track	4.94	-	-
	Extension of airside corridor at terminal T2 (international and domestic)	112.24	-	-
	Safety film on glass façade of NITB	8.94	-	-

Ref.	Particulars (in Rs. Cr.)	Approved by the Authority in the SCP Order	Actual Capitalisation by AAI in SCP	Capitalisation proposed to be considered by the Authority for true-up in SCP
	Construction of additional floor at operational office	7.85	-	-
	Relocation of mosque	5.00	-	-
	Relocation of CMD & EMD store	0.70	-	-
	Augmentation of water supply drainage at AAI Colony	0.90	-	-
	Facia Lighting of T2	0.93	-	-
	Construction of greenhouse	0.30	-	-
	Sub-total (C)	210.92	-	-
IV	Not approved in SCP but capitalised			
	Supply, installation, testing and commissioning of Inline XBIS TSA/Standard 3 (EU)	-	47.22	47.22
	Pavement works for link taxi, apron, and shoulders	-	30.01	30.01
	Purchase of 11,382 trolleys	-	26.40	26.40
	Construction of two additional 4C parking bays	-	14.73	14.73
	Fall protection and walkway system on NITB roof	-	14.62	14.33*
	Providing 8th departure conveyor line and additional departure conveyors at terminal T-2	-	14.33	14.33
	08 Automatic Tray Retrieval System		12.39	12.39
	Construction of road parallel to main runway approaching overshoot/undershoot area by CFTs	-	9.85	9.85
	Supply of threat containment vessel	-	8.69	8.69
	Widening and strengthening of perimeter road	-	8.54	8.54
	Wayfinding signages at T2	-	8.54	6.94
	Other works (below Rs. 7 Cr.)	-	165.04	164.31*
	Sub-total (D)	-	360.36	357.75
V	Completed in First Control Period and put to use in SCP			
	Civil works at ITB	-	16.91	16.58
	Electronics and electrical works at ITB	-	4.63	4.54*
	Relocation of new main fire station	-	0.89	0.89
	VIP road flyover and other road works at ITB	-	0.35	0.35
	ITB fire fighting	-	0.28	0.28
	Construction of operation office	-	0.23	0.23
	Conveyors X-BIS at ITB departure	-	0.14	0.14
	Sub-total (E)	-	23.43	23.01
	Other Items			

Ref.	Particulars (in Rs. Cr.)	Approved by the Authority in the SCP Order	Actual Capitalisation by AAI in SCP	Capitalisation proposed to be considered by the Authority for true-up in SCP
	Financing Allowance (F)	-	45.42	-
	Cargo (G)	-	3.03	3.03
	Capital expenditure later classified as O&M (H)	2.09	-	-
	Grand Total (A to H)	567.34	692.44	643.94

*due to change in terminal building ratio that was applied on common assets. Terminal building ratio was changed from 95%:5% (as submitted by AAI) to 92.5%:7.5% as proposed to be considered by the Authority.

3.3.29. The aeronautical capital additions considered after incorporating the above changes are as follows:

Table 18: Aeronautical capital addition proposed to be considered for true up of the Second Control Period by the Authority

FY Ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Runways, Taxiway & Aprons	5.08	95.07	60.22	3.10	0.00	163.46
Road, Bridges & Culverts	16.31	0.00	12.30	0.00	18.33	46.94
Building- Terminal	2.54	0.24	15.79	15.41	0.61	34.59
Building - Residential	0.13	0.00	3.25	0.00	5.59	8.98
Boundary Wall -Operational	0.05	0.00	2.70	0.00	0.00	2.75
Other Buildings-Unclassified	2.52	6.83	4.85	1.02	0.00	15.23
Computers : End Users	0.03	1.31	0.01	3.91	0.00	5.27
Computers: Servers and Networks	0.00	0.07	7.80	0.06	7.50	15.42
Intangible Assets- Software	0.00	0.25	0.07	3.03	2.46	5.81
Plant & Machinery	0.31	0.00	0.00	6.04	0.00	6.35
Tools & Equipment	2.77	3.35	12.79	6.76	17.40	43.07
Vehicles	0.46	0.81	0.16	0.54	0.00	1.97
Electrical Installations	15.03	13.16	10.61	18.96	25.25	83.01
Solar Plant	0.00	81.91	0.00	0.00	0.00	81.91
Other Office equipment	0.01	0.09	0.37	6.98	0.14	7.59
Furniture & Fixtures-Other than Trolley	0.22	2.02	2.13	6.33	0.58	11.27
Furniture & Fixtures- Trolley	0.00	1.46	1.66	0.00	26.40	29.52
X Ray Baggage System	4.94	0.22	0.08	54.12	10.24	69.59
CFT/Fire Fighting Equipment	0.09	8.60	1.07	0.00	1.48	11.23
Total	50.48	215.38	135.85	126.26	115.97	643.94

3.3.30. The Authority based on the above analysis, proposes to consider the following RAB for true-up of the Second Control Period:

Table 19: RAB proposed to be considered for true up of the Second Control Period by the Authority

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Opening Aeronautical RAB (A)	2,310.99	2,183.40	2,247.69	2,221.44	2,174.26	-

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Aeronautical Assets Capitalised during the year (B) (Table 18)	50.48	215.38	135.85	126.26	115.97	643.94
Disposals/Transfers (C) (Table 10)	(1.44)	(0.19)	(0.39)	(3.78)	-	(5.81)
Depreciation (D) (Table 26)	(147.13)	(150.90)	(161.71)	(169.66)	(180.77)	(810.17)
Closing Aeronautical RAB (A+B+C+D) (E)	2,212.89	2,247.69	2,221.44	2,174.26	2,109.46	-
Average RAB [F] [(A+E)/2]	2,261.94	2,215.55	2,234.56	2,197.85	2,141.86	-
Adjustment for Closing Cargo RAB due to formation of AAICLAS [G]	29.49					
Adjusted Closing RAB for FY 2016-17 after excluding Cargo RAB [H] = [E-G]	2,183.40					

3.4. True-up of Aeronautical Depreciation

AAI's submission of Aeronautical Depreciation for the Second Control Period

- 3.4.1. AAI has submitted that depreciation has been calculated based on AERA approved rates in the tariff order of the Second Control Period till FY 2017-18. From FY 2018-19 onwards, AAI has computed depreciation based on the rates prescribed by the Authority vide Order No. 35/2017-18 dated 12.01.2018, in the matter of determination of useful life of Airports Assets. The useful lives considered by AAI in FY 2016-17 and FY 2017-18 are summarized in the following table:

Table 20: Useful life considered by AAI for FY17 and FY18

S.N.	Asset Class	Useful life in years
1	Runways, Taxiways, Aprons	30
2	Roads, Bridges & culvert	30
3	Terminal/Other Buildings	30
4	Building - Residential	30
5	Security Fencing	3
6	Computer, IT Hardware & Access.	6
7	Computer Software	5
8	Plant and Machinery	15
9	Tools & Equipment	15
10	Other Vehicles	8
11	Electrical Installations	10
12	Office Equipment	5
13	Furniture & Fixtures	10
14	X-Ray Baggage	15
15	CFT	15

- 3.4.2. AAI has considered the following useful lives from FY 2018-19 onwards:

Table 21: Useful life considered by AAI from FY 2018-19 onwards

S.N.	Asset Class	Useful life in years as per AAI	Useful life in years as per Order No. 35/2017-18
1	Runways, Taxiways, Aprons	30	30

S.N.	Asset Class	Useful life in years as per AAI	Useful life in years as per Order No. 35/2017-18
2	Roads, Bridges & culvert	10	5/10
3	Terminal/Other Buildings	30	30/60
4	Building - Residential	30	30/60
5	Security Fencing	10	5/10
6	Computer, IT Hardware & Access.	3	3
7	Computer Software	6	6
8	Plant and Machinery	15	15
9	Tools & Equipment	15	15
10	Other Vehicles	8	8
11	Electrical Installations	10	10
12	Office Equipment	5	5
13	Furniture & Fixtures	7	7
14	X-Ray Baggage	15	15
15	CFT	15	15

3.4.3. The following table summarises the aeronautical depreciation submitted by AAI for the Second Control Period:

Table 22: Aeronautical depreciation submitted by AAI for true up of Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Runways, Taxiway & Aprons	7.80	9.62	11.86	13.01	13.07	55.36
Road, Bridges & Culverts	2.47	2.73	8.82	9.36	10.14	33.52
Building- Terminal	57.14	57.09	57.30	57.85	58.15	287.54
Cargo Complex	1.31	0.00	0.00	0.00	0.00	1.31
Building - Temporary	0.19	0.00	0.00	0.00	0.00	0.19
Building - Residential	0.41	0.41	0.46	0.51	0.60	2.39
Boundary Wall -Operational	0.42	0.42	1.41	1.48	1.46	5.19
Other Buildings-Unclassified	0.75	0.85	1.05	1.15	1.17	4.98
Computers : End Users	1.62	1.67	0.93	1.20	1.64	7.06
Computers: Servers and Networks	1.04	1.02	0.78	1.39	2.01	6.25
Intangible Assets- Software	0.02	0.04	0.07	0.38	0.92	1.42
Plant & Machinery	4.85	3.59	3.55	3.70	3.90	19.59
Tools & Equipment	0.75	0.91	1.43	2.07	2.89	8.05
Vehicles	0.23	0.27	0.32	0.36	0.39	1.57
Electrical Installations	57.17	57.38	58.33	59.15	60.73	292.75
Solar Plant	1.00	5.47	4.02	4.00	4.00	18.48
Other Office equipments	0.03	0.03	0.06	0.79	1.50	2.42
Furniture & Fixtures-Other than Trolley	0.92	1.02	1.75	2.35	2.70	8.75
Furniture & Fixtures- Trolley	0.20	0.28	1.76	1.95	5.37	9.55
X Ray Baggage System	5.72	5.71	5.72	7.52	8.95	33.61
CFT/Fire Fighting Equipment	3.22	3.48	3.81	3.40	3.44	17.35
Total	147.27	152.01	163.42	171.63	183.02	817.34

Decisions taken by the Authority regarding Aeronautical Depreciation as per Tariff Order for the Second Control Period

- 3.4.4. During the preparation of the Second Control Period tariff order, the Authority had noted that the depreciation policy of AAI, as approved by its Board, was not in accordance with that of other major private airports.
- 3.4.5. Furthermore, the Authority had noted that certain depreciation policies of AAI were not in line with the Companies Act 2013. Although the Authority believed that implementing the depreciation rates under the Companies Act 2013 was appropriate, it also mentioned that there was no specific provision for certain asset classes like apron, taxiway and runway in the Companies Act 2013 or 1956 or in the Income Tax Act 1961.
- 3.4.6. In order to address the above concern, the Authority had released Order No. 35/2017-18 dated 12.10.2018 on the applicable depreciation rates to be enforced from 01.04.2018. Categories of assets which were not provided for in the Companies Act, 2013 were added in the aforementioned order. The table below provides the depreciation rates considered by the Authority for the period FY 2014-15 onwards, up to FY 2017-18:

Table 23: Depreciation Rates as considered by the Authority from FY 2014-15 to FY 2017-18

No.	Asset Class	Rate as per Authority (%)
1	Land	0.00
2	Runways, Taxiways and Aprons	3.33
3	Roads, Bridges and Culvert	3.33
4	Terminal/Other Buildings	3.33
5	Cargo Building	3.33
6	Temporary Buildings	33.33
7	Building – Residential	3.33
8	Security Fencing – Temporary	33.33
9	Security Fencing wall	3.33
11	Security Fencing	3.33
12	Ancillary Building	3.33
13	Computer, IT Hardware and Access.	16.67
14	Computer Software	20.00
15	Plant and Machinery	6.67
16	Tools	6.67
17	Equipment	6.67
18	Vehicle	12.50
19	Heavy Vehicles	12.50
20	Vehicle Car and Jeep	12.50
21	Electrical Installations	10.00
22	Air Conditioning	10.00
23	Electronics installations	10.00
24	Typewriter and Office Equipment	20.00
25	Furniture and Fixtures	10.00
26	X-Ray Baggage	6.67
27	CFT	6.67

- 3.4.7. The depreciation rates (as per Order 35/2017-18) considered by the Authority from FY 2018-19 onwards is given in the table below:

Table 24: Depreciation Rates considered by the Authority from FY2018-19 onwards

No.	Asset Class	Rate as per Authority (in %)
1	Terminal Building (including VIP Terminal, Bus Terminal, Haj Terminal)	3.33
2	Building in operational area	3.33
3	Utility Building	3.33
4	Cargo Complex	3.33
5	Residential Building	3.33
6	Main access roads, Roads in operational area, boundary wall, security fencing	10.00
7	Baggage handling/Escalators/Elevators/Travellite/HVAC equipment/Cargo ASRS/ETV Equipment	6.67
8	X Ray machine, RT Set, DFMD, HHMD, Security Equipment	6.67
9	Office Equipment	20.00
10	Furniture and Fixtures – other than trolleys	14.29
11	Furniture and Fixtures –trolleys	33.33
12	Cargo equipment, Dollies, PPT	6.67
13	Computers – End user devices	33.33
14	Computers – servers and networks	16.67
15	CUTE Equipment	16.67
16	Electrical installation and equipment – Electrical fittings, including Runway lightning system Gen-set/Power equipment	10.00
17	Flight information system, AOCC equipment	10.00
18	Light motor vehicles and heavy motor vehicles	12.50
19	Crash fire tenders/Other fire equipment including pumps, sprinklers	6.67
20	Intangible assets – computer software	20.00
21	Runway/Taxiway/Apron	3.33
22	Hangar	3.33

- 3.4.8. Considering the rates as applicable in the tables above, the year wise depreciation approved by the Authority in the tariff order of the Second Control Period is as follows:

Table 25: Year wise depreciation as approved by the Authority as per the tariff order of the Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Depreciation as per Authority	146.2	150.6	160.1	163.3	162.1	782.3

Authority's examination of Aeronautical Depreciation for the Second Control Period

- 3.4.9. The Authority proposes to consider the rates approved by it in the Second Control Period tariff order for FY 2016-17 and FY 2017-18. For FY 2018-19 onwards, the rates prescribed in Order No. 35/2017-18 dated 12.10.2018 have been considered. Further, the Authority has noted that the depreciation rates in the submission have been calculated separately for the opening block of assets and for additions during the Second Control Period.
- 3.4.10. The Authority has recalculated the depreciation values based on the classification of common assets as approved in the Second Control Period tariff order. The Authority has also made the relevant adjustments as detailed in the capital additions of the true-up of the Second Control Period and accordingly recalculated the depreciation.

- 3.4.11. Having considered the revised capital additions proposed to be considered by the Authority for the Second Control Period, the Authority recalculated depreciation for the true-up of the Second Control Period as follows:

Table 26: Aeronautical depreciation proposed to be considered for true up of Second Control Period by the Authority

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Runways, Taxiway & Aprons	7.79	9.36	11.24	12.29	12.34	53.03
Road, Bridges & Culverts	2.43	2.65	8.55	9.05	9.78	32.47
Building- Terminal	57.14	57.08	57.28	57.79	58.04	287.34
Cargo Complex	1.31	0.00	0.00	0.00	0.00	1.31
Building - Temporary	0.19	0.00	0.00	0.00	0.00	0.19
Building - Residential	0.41	0.41	0.46	0.51	0.59	2.38
Boundary Wall -Operational	0.42	0.42	1.41	1.48	1.46	5.19
Other Buildings-Unclassified	0.75	0.83	1.01	1.11	1.12	4.83
Computers : End Users	1.62	1.67	0.93	1.20	1.64	7.06
Computers: Servers and Networks	1.04	1.02	0.75	1.32	1.95	6.08
Intangible Assets- Software	0.02	0.04	0.07	0.38	0.92	1.42
Plant & Machinery	4.84	3.59	3.55	3.70	3.90	19.58
Tools & Equipment	0.75	0.90	1.41	2.05	2.85	7.95
Vehicles	0.23	0.27	0.32	0.36	0.39	1.57
Electrical Installations	57.09	57.15	58.02	58.80	60.25	291.32
Solar Plant	1.00	4.99	3.64	3.61	3.61	16.85
Other Office equipment	0.03	0.03	0.06	0.79	1.50	2.42
Furniture & Fixtures-Other than Trolley	0.92	1.02	1.75	2.35	2.70	8.75
Furniture & Fixtures- Trolley	0.20	0.28	1.76	1.95	5.37	9.55
X Ray Baggage System	5.71	5.69	5.70	7.51	8.91	33.53
CFT/Fire Fighting Equipment	3.22	3.48	3.81	3.40	3.44	17.35
Total	147.13	150.90	161.71	169.66	180.77	810.17

3.5. True-up of the Fair Rate of Return

AAI's submissions regarding the True up of the Fair Rate of Return (FRoR) for the Second Control Period

- 3.5.1. AAI has made the following submission with regard to the FRoR:

- Cost of equity is considered to be 14.00%.
- Cost of debt is considered to be 6.21%.

- 3.5.2. Based on the above, AAI has considered FRoR to be 14%, as submitted in the following table:

Table 27: FRoR submitted by AAI for true up of Second Control Period

FY ending March 31 (in %)	2017	2018	2019	2020	2021
Cost of Equity	14.00	14.00	14.00	14.00	14.00
Cost of Debt	-	-	-	-	6.21
Means of Finance Proportion					
Equity Proportion	100.00	100.00	100.00	100.00	97.87
Debt Proportion	0.00	0.00	0.00	0.00	2.13

Decisions taken by the Authority regarding the FRoR as per Tariff Order for the Second Control Period

3.5.3. The relevant decisions taken by the Authority while determining the tariff for the Second Control Period are as stated below:

- “9.a. The Authority decides to consider the FRoR at 14% for NSCBIA for the 1st and 2nd control period.
- 9.b. The Authority will undertake a study to determine FRoR for major AAI airport given the low debt structure for AAI as a whole.”

Authority’s examination of FRoR for the Second Control Period

3.5.4. The Authority notes that there is a change in the debt-equity composition of NSCBIA, Kolkata in FY 2020-21 because the capital additions in FY 2020-21 were funded using a debt:equity ratio of 60%:40%. As per AAI’s submission, the cost of debt considered at NSCBIA, Kolkata is 6.21%, based on the term loan facility of Rs. 2,100 Cr. that AAI had taken from M/s. Axis Bank. Thus, after considering a cost of equity of 14%, the Authority recalculates the FRoR for the Second Control Period to be 13.96%.

3.5.5. The Authority based on the above analysis proposes to consider the following revised FRoR for true-up of the Second Control Period:

Table 28: FRoR proposed to be considered for true up of the Second Control Period by the Authority

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021
Debt [A]	-	-	-	-	69.58
Equity [B]	2,360.02	2,545.33	2,680.79	2,803.27	2,849.66
Debt + Equity [C = A + B]	2,360.02	2,545.33	2,680.79	2,803.27	2,919.24
Cost of Debt [D]	-	-	-	-	6.21%
Cost of Equity [E]	14.00%	14.00%	14.00%	14.00%	14.00%
Individual Year Gearing	0.00%	0.00%	0.00%	0.00%	2.38%
Weighted Average Gearing	0.46%				
Weighted Average Cost of Debt	0.03%				
Weighted Average Cost of Equity	13.94%				
FRoR	13.96%				

3.6. True-up of Return on Land

AAI’s submission regarding True up of Return on Land for the Second Control Period

3.6.1. AAI made the following submission regarding true up of return on land for Second and First Control Periods:

Table 29: Return on land submitted by AAI for true up of Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Return on Land (SCP)	0.19	0.19	0.19	0.18	0.10	0.85
Return on Land (FCP)	1.55	-	-	-	-	1.55

3.6.2. In order to substantiate the above, AAI has stated:

“AERA has vide its Order No.42/201819 dated 05.03.2019 determined to provide a FROR on cost of Land incurred by the Airport Operator. As per order of the Authority, return on land has been claimed from first control period. Interest cost till F.Y 19-20 has been considered as SBI Base rate + 2% and from F.Y 20-21, Term loan rate of 6.21% has been considered.”

Decisions taken by the Authority regarding Return on Land

3.6.3. The Second Control Period tariff order does not include any provision for a Return on Land.

3.6.4. As per Authority’s Order No. 42/2018-19 regarding determination of FRoR on cost of land:

- *As per para 4.1.1 of the aforementioned order, the Authority decides that in case the land is provided to the airport free of cost, no return shall be given on the land.*
- *As per para 4.1.2, the Authority states that return on land shall be provided on the cost if (provided it is not free of cost) it is used for aeronautical purposes only.*
- *As per clause 4.1.8. of the aforementioned order, return on land may be allowed on a prospective basis only.*

Authority’s examination of Return on Land for the Second Control Period

3.6.5. The Authority notes that AAI has submitted Rs. 1.55 Cr. for return on land for the First Control Period and Rs. 0.85 Cr. for return on land for the Second Control Period. The Authority sought additional information from AAI regarding this land. AAI has not provided the required information. Moreover, since return on land should be sought prospectively and not retrospectively, the Authority is of the opinion that return on land will not be included in the true up calculation of the Second Control Period.

3.7. True-up of Operating and Maintenance (O&M) Expenses

3.7.1. The Authority had noted certain inconsistencies in the categorisation of sub-expenses within O&M expenses while comparing the MYTP submission to the Second Control Period Order. In order to make the Third Control Period submissions comparable with the approved amounts in the Second Control Period order, the Authority has presented AAI’s submission as per the categorisation norm followed in the Second Control Period Order. The categorisation changes incorporated in AAI’s submission are as follows:

Table 30: Rectification of mis-categorization of O&M Expenses

Particulars	Shifted From	
	From	To
Fees Paid to Outsiders (Consultancy/Advisory)	Other outflows	Admin and General
Upkeep Expenses	Admin and General	Utilities & Outsourcing
POL	Utilities & Outsourcing	Other Outflows
Consumption of Spares	Utilities & Outsourcing	Other Outflows
Collection Charges	Other outflows	Admin and General

AAI's submissions regarding the True up of O&M Expenses for the Second Control Period

3.7.2. AAI has made the following submissions with regards to operating expenses for truing up in the Second Control Period:

- **Payroll costs:** AAI has submitted actual year-wise expenses for the abovementioned categories, from FY 2016-17 to FY 2019-20. Payroll costs for FY 2020-21 were estimated by assuming a 7% growth over the FY 2019-20 expenses. The following table summarises payroll costs submitted by AAI:

Table 31: Payroll costs submitted by AAI for Second Control Period

FY Ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Payroll costs – non CHQ	120.75	128.33	143.13	160.18	171.39	723.76
Payroll costs – CHQ	4.49	20.57	42.76	29.84	31.93	129.60
Total payroll expenses	125.24	148.90	185.89	190.01	203.32	853.36

- **Administrative and general expenses:** AAI has submitted year-wise actual expenses for the abovementioned categories, from FY 2016-17 to FY 2019-20. Administrative and general expenses for FY 2020-21 were estimated by assuming a 10% growth over the FY 2019-20 for non-apportionment expenses. Further, collection charges on UDF for FY2016-17 to FY2019-20 are based on actual traffic; for FY2020-21, collection charges on UDF have been estimated using the estimated passenger traffic. It may be noted that AAI had resubmitted the apportionment of admin and general CHQ expenses pertaining to major AAI airports vide its email dated 17 November, 2021 (“Revised CHQ & RHQ Allocation for the F.Y 16-17 TO 19-20”). The same has been considered while presenting AAI’s submission with regards to O&M expenses in the table below. In the case of apportionment of admin expenses for CHQ FY 2020-21, expenses were estimated using a growth rate of 5% over FY 2019-20. The following table summarises administrative and general expenses submitted by AAI:

Table 32: Administrative and general expenses submitted by AAI for Second Control Period

FY Ending 31 March (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Admin and general expenses – non CHQ	71.21	46.68	20.98	29.90	30.27	199.04
Apportionment of Admin Expenses for CHQ	57.10	53.59	32.78	93.15	97.80	334.43
Total Admin & General Expenses	128.31	100.27	53.76	123.04	128.07	533.47

- **Repair and maintenance (R&M) expenses:** AAI has submitted year-wise actual expenses for all R&M expenses from FY 2016-17 to FY 2019-20. R&M expenses for FY 2020-21 have been estimated by assuming a 10% growth over the FY 2019-20 expenses. The expenses for digital signages, automatic tray retrieval system and automatic electronic access retrieval system in FY 2020-21 are estimated based on actual annual maintenance contracts. The following table summarises R&M expenses submitted by AAI:

Table 33: R&M expenses submitted by AAI for Second Control Period

FY Ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Total R&M Expenses	96.18	62.20	70.28	74.26	84.07	386.99

- **Utilities and outsourcing expenses:** AAI has submitted power charges based on actual rates per unit. The power charges for FY2020-21 have also been calculated after incorporating a growth rate

of 3% on FY 2019-20 rate. AAI has submitted actual expenses for all other utility and outsourcing expenses from FY2016-17 to FY2019-20. The FY2020-21 expenses have been estimated using a 10% growth rate over FY2019-20 expenses. The following table summarises the utilities and outsourcing expenses submitted by AAI:

Table 34: Utilities and outsourcing expenses submitted by AAI for Second Control Period

FY Ending 31 March (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Total utilities & outsourced expenses	68.33	64.56	62.15	64.62	68.21	327.86

- **Other outflows:** The expenses for other expenses for from FY 2016-17 to FY 2019-20 are based on actual figures and those in FY2020-21 have been estimated using a 10% growth over FY2019-20 expenses. The following table summarises other outflows submitted by AAI:

Table 35: Other Outflows as submitted by AAI for Second Control Period

FY Ending 31 March (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Total Other outflows	1.04	1.13	1.99	2.21	2.43	8.79

*includes collection on consumption of stores and spares and POL charges

- 3.7.3. The aeronautical O&M expense for the Second Control Period considering the above-mentioned submissions are shown in the table below:

Table 36: Aeronautical O&M expenses submitted by AAI for true up for Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Payroll costs – CHQ	4.49	20.57	42.76	29.84	31.93	129.60
Payroll costs – non CHQ	120.75	128.33	143.13	160.18	171.39	723.76
Pay roll costs (A)	125.24	148.90	185.89	190.01	203.32	853.36
Repair & maintenance (B)	96.18	62.20	70.28	74.26	84.07	386.99
Utilities & outsourcing expenses (C)	68.33	64.56	62.15	64.62	68.21	327.86
Admin and general expenses –CHQ	57.10	53.59	32.78	93.15	97.80	334.43
Admin and general expenses – non CHQ	71.21	46.68	20.98	29.90	30.27	199.04
Admin. & other expenses (D)	128.31	100.27	53.76	123.04	128.07	533.47
Other outflows (E)	1.04	1.13	1.99	2.21	2.43	8.79
Total operating expenditure (A to E)	419.10	377.06	374.07	454.14	486.09	2,110.47

Decisions taken by the Authority regarding O&M Expenses as per Tariff Order for the Second Control Period

Forecasting of payroll expenses

- 3.7.4. The relevant decisions taken by the Authority while determining the tariff for the Second Control Period are as stated below:

- “11.a. The Authority decides to consider the operational and maintenance expenditure as given in Table 43 above, for the purpose of determination of aeronautical tariffs for the 2nd control period.”
- 11.b. The Authority expects AAI to reduce O&M expenditure over a period of time.
- “11.d. The Authority decides to true-up the O&M expenditure for FY 2016-17 to FY 2020-21 of the 2nd control period based on the actuals at the time of tariff determination of the 3rd control period.”

- 3.7.5. In the tariff order for the Second Control Period, with respect to the forecasting of payroll expenses, the Authority decided that expenditure on apportionment of retirement benefits provided to the Corporate Headquarter (CHQ) in respect of NSCBIA, Kolkata employees be increased at a growth rate of 7%, except for FY 2017-18. Additionally, the Authority decided that the payroll cost components – Salaries and Wages, Medical Benefits and PF contribution would be increased at 7% for FY 2016-17 and at a growth rate of 5% for FY 2018-19, FY 2019-20 and FY 2020-21. The Authority had also proposed to increase CHQ overheads apportionment costs (admin. and general expenditure of CHQ) by 5% per annum.

Allocation Ratios of Common Expenses

- 3.7.6. The allocation ratios as approved by the Authority in the tariff order of the Second Control Period for various common expenses have been summarized below:

Table 37: Allocation ratios of common O&M expenses as approved in the tariff order of Second Control Period

Particulars	% Aeronautical Expense (excl. Cargo)
Payroll Expenses	95
Apportionment of Admin CHQ expenses	90
Retirement benefits provided at CHQ in respect of employees at NSCBIA, Kolkata	95
Terminal Building Ratio	92.5

- 3.7.7. As per para 14.13. of the Second Control Period tariff order, the Authority had proposed not to include financing charges as a part of O&M expenses at NSCBIA, Kolkata.
- 3.7.8. As per para 14.19 of the Second Control Period tariff order, the Authority had proposed to undertake an independent study to assess the reasonableness of the O&M expenditure. The Authority had noted that it would consider the independent study's results to true up the O&M expenditure while determining the tariff for Third Control Period.
- 3.7.9. The Authority had decided to consider the O&M expenditure as per the following table:

Table 38: O&M Expenses as approved by the Authority in the tariff order of the Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Payroll costs – CHQ	23.0	26.5	28.4	30.3	32.5	140.7
Payroll costs – non CHQ	127.9	147.5	157.1	167.4	178.3	778.2
Pay roll costs (A)	150.6	172.5	183.9	196.1	209.0	912.1
Repair & maintenance (B)	87.9	82.4	89.7	97.0	105.3	462.3
Utilities & outsourcing expenses (C)	74.5	63.8	62.0	63.6	65.2	329.1
Admin and general expenses - non CHQ	10.4	11.0	12.1	13.2	14.5	61.2
Admin and general expenses - CHQ	18.8	18.5	19.5	20.4	21.4	98.6
Admin. & other expenses (D)	29.2	29.5	31.5	33.6	35.9	159.7
Other outflows (E)	1.1	1.1	1.2	1.3	1.5	6.2
Total operating expenditure (A to E)	333.7	318.1	330.0	351.1	373.8	1706.7

Authority's examination regarding O&M Expenses for the Second Control Period

- 3.7.10. The Authority has undertaken an independent study to assess the reasonableness of O&M expenses at NSCBIA, Kolkata in the Second Control Period, as per para 14.19 of the Second Control Period

Order. The study is attached in Appendix IV and its recommendations have been taken into consideration while truing up O&M expenses of the Second Control Period.

- 3.7.11. The Authority notes that AAI has allocated various sub-expenses within O&M expenses based on the following ratios:

Table 39: Allocation ratios of common expenses as submitted by AAI

Particular	Ratios
Payroll Expenses	EHCR
Admin. And General Expenses	EHCR, TBLR, VEHR
Repair and Maintenance	TBLR, VEHR, EHCR
Utilities and Outsourcing Expenses	TBLR
Other Outflows	-

Where:

- EHCR – Employee Head Count Ratio
- TBLR – Terminal Building Ratio
- VEHR – Vehicle Ratio

- 3.7.12. A summary of the percentage of expenses considered to be aeronautical based on the aforementioned ratios in AAI's submission is given below:

Table 40: Summary of percentage of common expenses levied on aeronautical portion for each year as submitted by AAI

Ratio (in %)	Aeronautical Percentage (excl. Cargo)
TBLR	94.35
EHCR	98.27
EQTR	93.07
VEHR	100.00

- 3.7.13. The Authority proposes to consider a terminal building ratio of 92.5% for the true-up of the Second Control Period (as mentioned in the Second Control Period Order). The Authority is of the opinion that since there were no major capital additions in the terminal building, the terminal building ratio is unlikely to undergo any change. Further, the Authority proposes to consider a vehicle ratio of 98.27% (similar to the employee ratio), in line with the Second Control Period Order that mentions the use of an employee ratio to segregate common vehicular assets.

Payroll Expenses

- 3.7.14. The Authority notes that O&M expenses for FY 2020-21 have been estimated by taking a growth rate of 10% (and 7% in the case of payroll costs) over the FY20 expenses. Since FY 2020-21 traffic was low due to the pandemic, the Authority is of the opinion that the O&M expenses of FY 2020-21 may not be more than that of FY 2019-20. Therefore, the Authority proposes to estimate the FY 2020-21 expenses by considering nil growth over FY 2019-20.
- 3.7.15. The Authority proposes to estimate the FY 2020-21 payroll costs by applying a 0% growth rate over the FY 2019-20 payroll costs instead of a 7% growth rate considered by AAI. The Authority proposes to consider Rs. 160.17 Cr. for payroll expenses for FY 2020-21 as opposed to Rs. 171.39 Cr. submitted by AAI. Further, as per para 14.8 of the Second Control Period Order, the Authority proposes to apportion 95% of retirement benefits to the aeronautical component against the 98.27%

submitted by AAI. The Authority proposes to consider the following payroll expenses in the Second Control Period based on the analysis provided above and in paras 3.7.10 to 3.7.13:

Table 41: Payroll costs proposed to be considered for true up of the Second Control Period by the Authority

FY Ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Payroll costs – CHQ*	4.34	19.89	41.34	28.85	28.85	123.26
Payroll costs – non CHQ	112.34	128.33	143.13	160.18	160.18	704.15
Total payroll expenses	116.68	148.21	184.47	189.02	189.03	827.41

* less – redeployed employees

Admin and General Expenses

- 3.7.16. As per para 14.13 of the Second Control Period Order, the Authority had proposed to not include financing charges (interest on bond) in admin. and general expenses. Since the same has been included in the MYTP submission, the Authority decided to exclude these expenses from O&M expenses for the Second Control Period.
- 3.7.17. The Authority also notes that AAI has provisioned towards an apportionment of Admin. Expenses to CHQ amounting to Rs. 334.43 Cr. Authority believes that this amount is on a higher side as compared to Rs. 98.6 Cr. as approved in the Second Control Period. In this regard, the Authority observed that there was no clear trend for the apportionment of CHQ expenses over the control periods. The Authority sought additional details on CHQ expenses of AAI and its apportionment across AAI profit centres from AAI. Subsequently AAI submitted details regarding the same vide e-mail dated 17.11.2021 (“Revised CHQ & RHQ Allocation for the F.Y 16-17 to 19-20”).
- 3.7.18. The Authority noted that the CHQ expenses submitted by AAI consisted of: (i) payroll costs; (ii) admin and general expenses; (iii) repair and maintenance expenses; (iv) utility and outsourcing expenses; and (v) other expenses. The Authority analysed the apportionment of these expenses in the proportion of employees providing support to airport and non-airport related services and their bifurcation into purely airport, purely non-airport and common categories based on the nature of services provided by AAI.
- 3.7.19. With respect to the apportionment of pay and allowance costs incurred at the CHQ, the Authority has the following observations:
- AAI has considered pay and allowance costs of commercial department at CHQ as airport expenses, despite such expenses being non-airport related in nature.
 - AAI has excluded pay and allowance costs of employees involved in ATM, CNS & Cargo department at CHQ while working out the allocation to AAI profit centres. However, AAI has not bifurcated the pay and allowance costs of common support service departments such as HR, finance, civil, terminal management (housekeeping), etc. between airport and non-airport related activities.
 - AAI has considered 5% of the CHQ expenses (after netting off revenue) as non-airport related expenses. The Authority is of the view that a percentage share of expenses should be worked out on total outflow of pay and allowances.
 - Manpower of CHQ is also providing services to non-airport related activities such as ATC, CNS services at airports. Hence, pay and allowances need to be adjusted accordingly.
- 3.7.20. Considering the above observations, the Authority is of the considered view that 20% of the pay and allowances expenses of the CHQ are not incurred for airports and are to be excluded as they are related to the following:

- i. Support services to ANS, Cargo and Commercial at CHQ and airports
- ii. Officials of Directorate of Commercial

The balance 80% of pay and allowances of CHQ has been allocated to airports as aeronautical expenses.

3.7.21. With respect to the apportionment of admin and general expenses incurred at the CHQ, the Authority has the following observations:

- i. With respect to AAI's legal & arbitration expenses at CHQ level, the Authority is of the view that this expense should be analysed and distributed to stations on a case-to-case basis. Since such details have not been provided by AAI, the Authority proposes to exclude the same from the amount allocated to stations.
- ii. With respect to interest/penalties to Government of India at CHQ level, the Authority is of the view that stakeholders should not be burdened with interest/penalties paid to the Government of India, due to various lapses/delays on part of the airport operator. Therefore, such expenses have not been allocated to NSCBIA, Kolkata.

3.7.22. Due to the impact of the Covid-19 pandemic and non-availability of actual data, the Authority proposed to consider a negative 5% growth rate over FY 2019-20 while estimating the admin and general expenses - CHQ expenses of FY 2020-21, instead of a 10% growth rate considered by AAI. The Authority proposes to consider Rs. 65.28 Cr. for administrative and general expenses for FY 2020-21 as opposed to Rs. 97.80 Cr. submitted by AAI.

3.7.23. The Authority also proposes to consider the collection charges for UDF based on the traffic growth rates outlined in Section 3.2. The Authority proposes to consider the following administrative and general expenses in the Second Control Period based on the analysis provided above and in paras 3.7.10 to 3.7.13:

Table 42: Administrative and general expenses proposed to be considered for true up of the Second Control Period by the Authority

FY Ending 31 March (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Admin and general expenses – non CHQ	21.53	23.21	20.98	29.89	27.58	123.20
Apportionment of Admin Expenses for CHQ	39.04	29.15	1.66	68.71	65.28	203.84
Total Admin & General Expenses	60.57	52.36	22.64	98.6	92.86	327.04

Repair and Maintenance Expenses

3.7.24. The Authority proposes to estimate the FY 2020-21 R&M expenses by applying a 0% growth rate over the FY 2019-20 R&M expenses instead of a 10% growth rate considered by AAI. The Authority proposes to consider Rs. 75.56 Cr. for R&M expenses for FY 2020-21 as opposed to Rs. 84.07 Cr. submitted by AAI. The Authority proposes to consider the following repair and maintenance expenses in the Second Control Period based on the analysis provided above and in paras 3.7.10 to 3.7.13:

Table 43: R&M expenses proposed to be considered for true up of the Second Control Period by the Authority

FY Ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Total R&M Expenses	95.20	61.22	69.21	73.18	75.56*	374.37

* includes AMC charges for digital signages, ATRS, AERS

Utilities and Outsourcing Expenses

3.7.25. The Authority has analysed the utility and outsourcing expenses at NSCBIA, Kolkata. It was noted that a substantial portion of the utility expenses pertained to the power charges (net of power recoveries). Upon the Authority's inquiry regarding power recoveries, AAI submitted that NSCBIA, Kolkata had a steady power recovery of 20-25% across the Second Control Period. Since the power recovery is at par with other major airports, the Authority does not propose any changes to it. Further, the Authority proposes to estimate the FY 2020-21 utilities and outsourcing expenses by applying a 0% growth rate over the FY 2019-20 utilities and outsourcing expenses instead of a 10% growth rate considered by AAI. The Authority proposes to consider Rs. 63.61 Cr. for utilities and outsourcing expenses for FY 2020-21 as opposed to Rs. 68.21 Cr. submitted by AAI. The Authority proposes to consider the following utilities and outsourcing expenses in the Second Control Period based on the analysis provided above and in paras 3.7.10 to 3.7.13:

Table 44: Utilities and outsourcing expenses proposed to be considered for true up of the Second Control Period by the Authority

FY Ending 31 March (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Total utilities & outsourcing expenses	67.71	63.84	61.22	63.61	63.61	320.00

Other Outflows

3.7.26. The Authority proposes to consider Rs. 2.18 Cr. for other outflows for FY 2020-21 as opposed to Rs. 2.43 Cr. submitted by AAI. The Authority proposes to consider the following other outflows in the Second Control Period based on the analysis provided in paras 3.7.10 to 3.7.13:

Table 45: Other outflows proposed to be considered for true up of the Second Control Period by the Authority

FY Ending 31 March (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Total Other Outflows	0.97	1.12	1.98	2.17	2.17	8.41

3.7.27. The Authority has recalculated the O&M expenses after taking into consideration the above points and considering specific details on sub-heads of O&M expenses. The table below provides the O&M expenses as considered by the Authority for the true-up of the Second Control Period:

Table 46: O&M Expenses proposed to be considered for true up of the Second Control Period by the Authority

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Payroll costs – CHQ	4.34	19.89	41.34	28.85	28.85	123.26
Payroll costs – non CHQ	112.34	128.33	143.13	160.18	160.18	704.15
Payroll costs (A)	116.68	148.21	184.47	189.02	189.03	827.41
Repair and maintenance (B)	95.20	61.22	69.21	73.18	75.56	374.37
Utilities & outsourcing expenses (C)	67.71	63.84	61.22	63.61	63.61	320.00
Admin and general expenses – non CHQ	21.53	23.21	20.98	29.89	27.58	123.20
Apportionment of Admin Expenses for CHQ	39.04	29.15	1.66	68.71	65.28	203.84
Admin & Other expenses (D)	60.57	52.36	22.64	98.6	92.86	327.04
Other Outflows (E)	0.97	1.12	1.98	2.17	2.17	8.41
Total O&M Expenses (A to E)	341.13	326.75	339.52	426.58	423.23	1,857.23

3.8. True-up of Non-Aeronautical Revenues

AAI's submissions regarding true-up of Non-Aeronautical Services for the Second Control Period

- 3.8.1. AAI submitted the revenue from non-aeronautical services for cross subsidising 30% of the same in the determination of the ARR for the Second Control Period. The following table provides the actual non-aeronautical revenues earned by NSCBIA, Kolkata in the Second Control Period:

Table 47: Non-aeronautical revenue submitted by AAI for true up of Second Control Period

FY Ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Revenue from Rent and services						
Land rent & leases	56.33	48.63	33.27	28.84	7.95	175.03
Building residential	0.04	0.03	0.06	0.04	0.04	0.22
Building non residential	20.77	16.49	18.50	18.92	14.22	88.89
Revenue related to passenger traffic						
Duty free shops	23.01	33.75	37.24	43.38	2.52	139.90
Car rentals	0.79	5.16	11.96	14.60	2.83	35.34
Car parking	13.19	15.01	15.22	14.47	3.86	61.75
Admission tickets	0.85	1.28	1.08	1.38	0.51	5.10
Other income	22.52	10.44	17.26	(16.55)*	24.90	58.57
Land Rent & Leases - hanger	9.79	18.40	10.67	11.16	34.35	84.37
Restaurant / snack bars	10.71	11.75	13.66	15.03	3.98	55.13
T.R. Stall	24.95	30.88	40.42	45.14	12.13	153.53
Hoarding & display	(17.47)**	31.03	43.24	51.34	8.72	116.86
Total	165.47	222.87	242.59	227.74	116.02	974.69

*Negative balance due to withdrawal of Taj SATS Billing (In-flight Kitchen Services) as per CHQ directive

**Negative balance due to withdrawal of TDI billing subsequent to arbitration

Decisions taken by the Authority regarding Non-Aeronautical Services as per Tariff Order for the Second Control Period

- 3.8.2. The Authority had proposed that non-aeronautical revenues would be trued-up in case the non-aeronautical revenues are higher than the projected non-aeronautical revenues. However, in case of a shortfall, the Authority would perform the true up, provided there are reasonable grounds for not realising the projected revenues.
- 3.8.3. As per the Second Control Period tariff order, the Authority had decided to include cargo revenue for FY 2016-17 while determination of tariff for the Second Control Period. Additionally, the Authority had noted that there was no clarity on the revenue sharing mechanism between AAI and AAICLAS. Further, it had proposed that this matter would be taken up during the true up in Third Control Period, which will be based on the decision taken by AAI on revenue sharing mechanism.
- 3.8.4. As per the provisions of the AERA Act, services rendered in respect of cargo, ground handling and fuel supply are aeronautical services. Thus, the Authority had proposed to consider land lease revenues from CGF as aeronautical revenue.
- 3.8.5. Thus, after adjusting for land lease revenues and growth rates assumed by AAI (and considering stakeholders' comments) in the Second Control Period, the approved non-aeronautical revenue is as follows:

Table 48: Non-aeronautical Revenue as per the tariff order of the Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Non-Aeronautical Revenues as per Authority	150.5	167.8	186.9	205.7	226.4	937.3

Authority's examination regarding Non-Aeronautical Services for the Second Control Period

- 3.8.6. The Authority has studied AAI's submission with respect to non-aeronautical revenue and observed that the actual non-aeronautical revenues realised at NSCBIA, Kolkata are higher than the projected values in the tariff order of the Second Control Period. Accordingly, the Authority accepts a non-aeronautical revenue of Rs. 974.69 Cr. for the Second Control Period.

3.9. True-up of Aeronautical Revenue

AAI's submission of Aeronautical Revenue for the Second Control Period

- 3.9.1. AAI has submitted that the following are the sources of aeronautical revenue:

- a. Landing, parking, and housing charges
- b. User development fee (UDF)
- c. Aerobridge charges
- d. Oil throughput charges (AAI submitted that it has stopped levying oil throughput charges from 15.01.2020)
- e. Land leases (from ground handling and oil companies)
- f. Ground handling charges
- g. Royalty from CUTE charges
- h. Cargo revenue (for FY17 only)
- i. Cargo revenue share – 30% from AAICLAS

- 3.9.2. AAI has submitted the following details regarding aeronautical revenue for the Second Control Period:

Table 49: Aeronautical revenue submitted by AAI for true up of Second Control Period

FY ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Landing	210.47	254.56	331.29	341.05	157.22	1,294.60
Parking & Housing	5.11	12.40	14.98	24.32	10.48	67.30
UDF	398.42	476.52	597.65	606.22	186.63	2,265.44
Oil throughput charges	57.39	62.47	64.41	50.01	0.00	234.29
Land lease	37.44	37.44	37.06	36.44	36.44	184.81
Ground handling charges	27.38	28.65	36.05	28.06	11.68	131.83
Royalty from CUTE	13.23	18.37	18.93	15.80	5.34	71.67
Less: Cargo revenue	53.06	-	-	-	-	53.06
Cargo revenue share from AAICLAS	-	-	45.79	20.11	17.02	82.92
Aerobridge charges	0.00	0.00	15.21	16.39	6.02	37.62
Total	696.39	890.41	1161.38	1138.42	430.84	4,317.44

Decisions taken by the Authority regarding aeronautical revenue for the Second Control Period

3.9.3. Following are the relevant decisions that the Authority has taken with respect to aeronautical revenue for the Second Control Period:

- “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 as aeronautical revenue.”

3.9.4. The following aeronautical revenues were approved by the Authority in the Second Control Period:

Table 50: Aeronautical revenue as approved by the Authority in the tariff order of Second Control Period

FY ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Landing	192.3	222.3	285.0	315.8	349.9	1,365.3
Parking & Housing	4.6	6.0	8.9	10.0	11.2	40.7
UDF	430.4	495.6	618.2	707.7	810.5	3,062.4
FTP + ITP and lease rentals	83.7	89.7	96.1	103.0	110.4	482.9
Ground handling charges and lease rentals	29.4	31.4	33.7	36.1	38.6	169.2
Royalty from CUTE	12.4	13.7	15.1	16.7	18.5	76.4
Cargo revenue	47.2	-	-	-	-	47.2
Aerobridge charges	-	4.6	15.3	17.2	19.2	56.3
Total projected revenue	799.9	863.2	1,072.4	1,206.5	1,358.5	5,300.5
Target aero revenue (ARR)	884.9	1,019.9	1,175.6	1,355.5	1,563.0	5,998.9
Shortfall	(84.9)	(156.6)	(103.3)	(148.9)	(204.6)	(698.3)
Shortfall in PV terms	(84.9)	(137.4)	(79.5)	(100.5)	(121.1)	(523.5)

Authority's examination of Aeronautical Revenues for the Second Control Period

- 3.9.5. The Authority has noted that aeronautical revenue is based on the following two factors:
- ATM traffic – Landing charges, parking & housing charges, aerobridge charges and ground handling charges
 - Passenger traffic – UDF and royalty from CUTE
- 3.9.6. The Authority notes that in its submission, AAI has deducted the revenue received from the cargo operations in FY 2016-17 while calculating the total aeronautical revenue at NSCBIA, Kolkata. The Authority noted that the cargo revenues were erroneously subtracted while calculating the total aeronautical revenue for FY 2016-17. The Authority is of the opinion that the same must be added to the aeronautical revenues. The Authority proposes the same and recalculates the aeronautical revenue for FY 2016-17. Further, the Authority also understands that the cargo revenue (30% received from AAICLAS) for FY 2017-18 has been added along with the same for FY 2018-19. The Authority acknowledges that this has an impact on the ARR in NPV terms. This is because the timing of recognising the revenue would have an impact when appropriate discount factors are applied. Thus, the Authority proposes to recognise the cargo revenue from AAICLAS in their respective years.
- 3.9.7. The Authority notes that the aeronautical revenues at NSCBIA, Kolkata are in line with the expected revenues in the Second Control Period Order expect for FY 2020-21. Moreover, it may be noted that the revised tariffs in the Second Control Period were applicable only in the middle of the Second Control Period. Thus, the revenue projections in the Second Control Period Order are in line with the revised tariffs and actual traffic growth rates except for FY 2020-21. The Authority understands the adverse impacts of the pandemic on the aviation sector in FY 2020-21 and proposes to true-up

the aeronautical revenue as per the actual revenue collected by AAI in the Second Control Period after truing up the actual traffic.

- 3.9.8. The following table provides the recomputed summary of aeronautical revenue based on the revised passenger and ATM traffic volumes of FY 2020-21:

Table 51: Aeronautical revenue proposed to be considered for true up of the Second Control Period by the Authority

FY ending 31 March (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Landing	210.47	254.56	331.29	341.05	161.90	1,299.28
Parking & Housing	5.11	12.40	14.98	24.32	11.03	67.85
UDF	398.42	476.52	597.65	606.22	194.46	2,273.27
Oil throughput charges	57.39	62.47	64.41	50.01	0.00	234.29
Land lease	37.44	37.44	37.06	36.44	36.44	184.81
Ground handling charges	27.38	28.65	36.05	28.06	12.22	132.37
Royalty from CUTE	13.23	18.37	18.93	15.80	5.55	71.87
Cargo revenue	53.06	-	-	-	-	53.06
Cargo revenue share from AAICLAS	-	23.74	22.06	20.11	17.02	82.92
Aerobridge charges	0.00	0.00	15.21	16.39	6.14	37.74
Total	802.50	914.14	1,137.64	1,138.42	444.76	4,437.47

3.10. True-up of Aeronautical Taxes

AAI's submission regarding True up of Aeronautical Taxes for the Second Control Period

- 3.10.1. AAI has submitted tax calculations using a tax rate of 34.94% from FY 2016-17 to FY 2018-19. For FY 2019-20 and FY 2020-21, a tax rate of 25.17% was used. These tax rates were used on NSCBA, Kolkata's profit before tax (PBT) after setting-off the prior period tax losses. The following table summarises the tax working for the true-up period as per AAI's submission:

Table 52: Aeronautical Taxes submitted by AAI for true up of Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Aero Revenue (A)	696.39	890.41	1,161.38	1,138.42	430.84	4,317.44
O&M Expense (B)	419.10	377.06	374.07	454.14	486.09	2,110.47
Total Interest and Financing Charges (C)	-	-	-	-	1.73	1.73
Depreciation (D)	175.61	186.18	199.94	188.24	178.06	928.02
Total expenditure (E) = (B to D)	594.72	563.24	574.01	642.38	665.88	3,040.21
Profit Before Tax (F) = (A – E)	101.67	327.17	587.37	496.04	(235.03)	1,277.22
Set-off of prior period tax losses (G)	-	-	-	-	-	-
PBT after set-off of losses (H) = (F – G)	101.67	327.17	587.37	496.04	(235.03)	1,277.22
Tax [34.944% up to FY 2018-19 & 25.17% from FY 2019-20] (I)	35.53	114.33	205.25	124.85	-	479.96
Profit After Tax (J) = (H – I)	66.14	212.84	382.12	371.19	(235.03)	797.26

Decisions taken by the Authority regarding Taxation as per Tariff Order for the Second Control Period

3.10.2. Relevant decisions taken by the Authority at the time of tariff determination of the Second Control Period as are follows:

- “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.”

3.10.3. Additionally, the Authority decided to consider corporate tax pertaining to earnings from aeronautical services under shared till as per MIAL Order No. 32/2012-13 (Decision No. XV). The Authority has therefore proposed to exclude non-aeronautical component from revenues considered while determining tax for aeronautical services.

3.10.4. Based on the abovementioned examination by the Authority, the following tax projections were made for the Second Control Period:

Table 53: Aeronautical Taxes as approved by the Authority in the tariff order of Second Control Period

FY ending March 31 (Rs. Cr.)	2017	2018	2019	2020	2021	Total
Aero Revenue	799.9	863.2	1,072.4	1,206.5	1,358.5	5,300.5
Aeronautical O&M (excl. CHQ overheads)	295.9	273.1	282.2	300.3	319.9	1,471.4
CHQ Overheads	41.8	45.0	47.8	50.8	53.9	239.3
Depreciation as per IT Act	194.5	188.7	202.3	195.1	170.7	951.3
Profit Before Tax	267.7	356.5	540.1	660.3	814.0	2,638.6
Tax	92.6	123.3	186.9	228.5	281.6	912.9

Authority's examination of Aeronautical Taxes for the Second Control Period

3.10.5. The Authority does not propose any material changes in calculating the tax for the Second Control Period. The Authority has incorporated the changes in regulatory building blocks relevant to tax calculation and recalculated aeronautical tax for the true-up of the Second Control Period as follows:

Table 54: Aeronautical Taxes proposed to be considered for true up of the Second Control Period by the Authority

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Aeronautical Revenue (A)	802.50	914.14	1,137.64	1,138.42	444.76	4,437.47
Operating Expense (B)	341.14	326.75	339.51	426.60	423.23	1,857.23
Total Interest and Finance Charges (C)	-	-	-	-	1.73	1.73
Depreciation as per IT Act (D)	175.34	182.49	193.44	182.68	173.37	907.32
Total Expenditure (E) = (B + C + D)	516.48	509.24	532.96	609.28	598.32	2,766.28
PBT (F) = (A – E)	286.02	404.91	604.68	529.14	(153.56)	1,671.19
Set-off of prior period tax losses (G)	-	-	-	-	-	-
PBT after set-off of prior period tax losses (H) = (F – G)	286.02	404.91	604.68	529.14	(153.56)	1,671.19
Tax 34.944% (FY19) & 25.17% w.e.f. FY20 (I)	99.95	141.49	211.30	133.18	-	585.92
PAT (J) = (H – I)	186.07	263.42	393.38	395.96	(153.56)	1,085.27

3.11. True-Up of Aggregate Revenue Requirement

AAI's submission of ARR for the Second Control Period

3.11.1. The ARR as submitted by AAI, after incorporating AAI's revised submissions, is given in the table as follows:

Table 55: ARR submitted by AAI for true up of Second Control Period

FY Ending 31 March (Rs. Cr)	2017	2018	2019	2020	2021	Total
Average RAB [A]	2,264.39	2,233.49	2,268.79	2,235.94	2,181.88	
FRoR [B] (% p.a.)	14.00%	14.00%	14.00%	14.00%	14.00%	
Return on Average RAB [C] = [A] * [B]	317.01	312.69	317.63	313.03	305.46	1,565.83
Add: Depreciation [D]	147.27	152.01	163.42	171.63	183.02	817.34
Add: Operating expenses [E]	419.10	377.06	374.07	454.14	486.09	2,110.47
Add: Taxation [F]	35.53	114.33	205.25	124.85	-	479.96
Less: 30% of Non - Aeronautical revenue [G]	(49.64)	(66.86)	(72.78)	(68.32)	(34.81)	(292.41)
Return on Land [H]	0.19	0.19	0.19	0.18	0.10	0.85
Return on Land for FCP [I]	1.55	-	-	-	-	1.55
Dep on Financing Allowance FA for FCP [J]	13.05	13.04	13.41	13.28	13.28	66.07
Return on RAB for SCP FA [K]	30.33	28.50	26.65	24.78	22.92	133.20
Dep and Return on RAB w.r.t. FA of FCP (compounded @ 14%) [L]	207.67	-	-	-	-	207.67
Interest on Term Loan [M]	-	-	-	-	1.73	1.73
True Up for FCP [N]	899.90					899.90
ARR [O] = Sum of [C] to [N]	2,021.96	930.95	1,027.85	1,033.58	977.81	5,992.15
Aeronautical Revenue [P]	696.39	890.41	1,161.38	1,138.42	430.84	4,317.44
Discount Factor (#) [Q]	1.93	1.69	1.48	1.30	1.14	
PV (Discounted ARR) [R] = [O]*[Q]	3,893.11	1,572.34	1,522.81	1,343.24	1,114.70	9,446.20
PV (Discounted aeronautical revenues) [S] = [P]*[Q]	1,340.84	1,503.86	1,720.63	1,479.49	491.16	6,535.99
PV (Shortfall)/ Surplus of the current control period [T] = [S] - [R]	(2,552.27)	(68.48)	197.82	136.25	(623.54)	(2,910.21)
True Up for SCP [Σ (T)] as of 31 March 2022	(2,910.21)					(2,910.21)

Decisions taken by the Authority regarding ARR as per Tariff Order for the Second Control Period

3.11.2. The Authority had decided to true up for the Second Control Period at the time of the tariff determination for the Third Control Period. The following table was the approved ARR as per the Authority:

Table 56: ARR as approved by the Authority in the tariff order of Second Control Period

FY Ending 31 March (Rs Cr.)	2017	2018	2019	2020	2021	Total
Average RAB	2,253.5	2,221.6	2,334.3	2,313.2	2,150.5	

FY Ending 31 March (Rs Cr.)	2017	2018	2019	2020	2021	Total
Return on Average Aeronautical RAB @ 14%	315.5	311.0	326.8	323.8	301.1	1,578.20
Aeronautical Operating Expenditure	337.7	318.1	330.0	351.1	373.8	1,710.70
Depreciation on aeronautical RAB	146.2	150.6	160.1	163.3	162.1	782.30
Aeronautical corporate tax @ 34.6%	92.6	123.3	186.9	228.5	281.6	912.90
Less – 30% aeronautical revenues	45.1	50.3	56.1	61.7	67.9	281.10
True up shortfall in 1 st control period as on 01.04.2016	899.9					899.9
ARR as per Authority	1,746.8	852.7	947.8	1,005.0	1,050.7	5,602.9
Total ARR as per Authority	5,602.9					5,602.9
Discounted ARR	1,746.8	747.9	729.3	678.3	622.1	4,524.50
PV of ARR for the control period as on 01.04.2016	4,524.5					4,524.5
No. of passengers (as per projections) (in mn.)	15.82	17.50	19.36	21.42	23.71	97.82
Total Passengers during the control period (in mn.)	97.82					97.82
Yield per passenger for the control	462.5					462.50
Target Yield per passenger	559.4	582.8	607.2	632.7	659.2	3,041.30
Target aeronautical revenues	884.9	1,109.9	1,175.6	1,355.5	1,563.0	6,088.90
PV of target aeronautical revenues	4,524.5					4,524.50

Authority's examination regarding ARR for the Second Control Period

- 3.11.3. The Authority notes that AAI has submitted a return and depreciation claimed on the financing allowance for the First Control Period. The Authority proposes to not allow this provision since it was not proposed by AAI in the First Control Period and, as a result, was not approved by the Authority. Further, the Authority proposes to not allow the treatment of this financing allowance in the Second Control Period.
- 3.11.4. The Authority notes that AAI has provisioned for an interest on term loan in their submission. The Authority proposes to not allow the same since a provision of a fair rate of return on the RAB is made in Direction 5 of the AERA Guidelines, 2011. Thus, considering AAI's submission in this regard would lead to a double-counting of the return provisioned for debt.
- 3.11.5. After incorporating the changes discussed in the earlier sections, the Authority has recalculated the ARR as follows:

Table 57: ARR proposed to be considered for true up of the Second Control Period by Authority

FY Ending 31 March (Rs Cr.)	Ref	2017	2018	2019	2020	2021	Total
Average RAB [A]	Table 19	2,261.94	2,215.55	2,234.56	2,197.85	2,141.86	
FRoR [B] (% p.a.)	Table 28	13.96%	13.96%	13.96%	13.96%	13.96%	
Return on Average RAB [C] = [A] * [B]		315.86	309.39	312.04	306.91	299.10	1,543.30
Add: Depreciation [D]	Table 26	147.13	150.90	161.71	169.66	180.77	810.17
Add: Operating expenses [E]	Table 46	341.14	326.75	339.51	426.60	423.23	1,857.23
Add: Taxation [F]	Table 54	99.95	141.49	211.30	133.18	-	585.92
Return on Land [G]	Para 3.6.5	-	-	-	-	-	-

FY Ending 31 March (Rs Cr.)	Ref	2017	2018	2019	2020	2021	Total
Return on Land for FCP [H]	Para 3.6.5	-	-	-	-	-	-
Dep on Financing Allowance FA for FCP [I]	Para 3.11.3	-	-	-	-	-	-
Return on RAB for SCP FA [J]	Para 3.11.3	-	-	-	-	-	-
Dep and Return on RAB w.r.t. FA of FCP (compounded @ 14%) [K]	Para 3.11.3	-	-	-	-	-	-
Interest on Term Loan [L]	Para 3.11.4	-	-	-	-	-	-
Under-recovery of FCP as on 31 March 2017 [M]		899.90					899.90
ARR [O] = Sum of [C] to [M]		1,803.98	928.53	1,024.57	1,036.35	903.10	5,696.52
Non-Aeronautical Revenue	Table 47	165.42	222.87	242.59	227.74	116.02	974.69
Less: 30% of Non - Aeronautical revenue [P]		(49.63)	(66.86)	(72.78)	(68.32)	(34.81)	(292.39)
Net ARR [Q] = [O] + [P]		1,754.35	861.67	951.79	968.03	868.29	5,404.13
Aeronautical revenues [R]	Table 51	802.50	914.14	1,137.64	1,138.42	444.76	4,437.47
Discount Factor (#) [S]		1.92	1.69	1.48	1.30	1.14	
PV (Discounted ARR) [T] = [S]*[Q]		3,372.57	1,453.50	1,408.80	1,257.26	989.54	8,481.66
PV (Discounted aeronautical revenues) [U] = [S]*[R]		1,542.73	1,542.02	1,683.88	1,478.57	506.87	6,754.06
PV (Under)/ Over recovery of the current control period as on 31 March 2022 [V] = [U] - [T]		(1,829.84)	88.52	275.08	221.30	(482.67)	(1,727.60)
True Up for SCP [Σ (V)] as of 31 March 2022		(1,727.60)					

3.11.6. The Authority notes that there is an under-recovery of Rs. 1,727.60 Cr. in the Second Control and proposes to account for in the ARR computation of the Third Control Period. The main reasons for the true-up of Rs. 1,727.60 Cr. are:

- the provision for carry-forward of Rs. 523.5 Cr. as of 01.04.2016 as per para 17.10 and Table 49 of the Second Control Period Order;
- reduced traffic in FY 2020-21 due to the Covid-19 pandemic;
- incurrence of security-related capital additions in order to comply with BCAS requirements

3.12. Authority's proposals regarding true-up of Second Control Period

Based on the discussion in the earlier sections, the Authority proposes the following changes regarding the true-up of the Second Control Period

- 3.12.1. To accept the actual traffic volumes of FY 2020-21 for true-up of the Second Control Period – as detailed in Table 6.
- 3.12.2. To consider passenger and ATM traffic as detailed in Table 7 for true-up of the Second Control Period.
- 3.12.3. To consider aeronautical RAB as per Table 19 for true-up of the Second Control Period.
- 3.12.4. To consider aeronautical depreciation as per Table 26 for true-up of the Second Control Period.

- 3.12.5. To consider FRoR as per Table 28 for the true-up of the Second Control Period.
- 3.12.6. To not allow return on cost of land pertaining to First and Second Control Periods.
- 3.12.7. To consider operating expenses as per Table 46 for true-up of the Second Control Period.
- 3.12.8. To consider the non-aeronautical revenue as per submitted by AAI for the true-up of the Second Control Period.
- 3.12.9. To consider aeronautical revenue as per Table 51 for true-up of the Second Control Period.
- 3.12.10. To consider aeronautical tax as per Table 54 for true-up of the Second Control Period.
- 3.12.11. To carry forward the under-recovery amount of Rs. 1,727.60 Cr. as on 31 March 2022 as per Table 57 for true-up of the Second Control Period and consider the same in the tariff determination of the Third Control Period.

4. TRAFFIC FOR THE THIRD CONTROL PERIOD

4.1. AAI's submission regarding Traffic in Third Control Period

- 4.1.1. AAI has submitted its traffic projections as a part of MYTP submission. The passenger traffic, air traffic movement and their expected annual growth rates assumed in the tariff determination process for Third Control Period are as given in the table below:

Table 58: ATM and Passenger Traffic for Third Control Period submitted by AAI

FY ending March 31	2020	2021	2022	2023	2024	2025	2026	Total
Passenger Traffic (Mn)								
Domestic	19.08	7.34	12.84	16.69	20.87	25.04	28.05	103.49
% growth over previous year		-62%	75%	30%	25%	20%	12%	
% of FY20		38%	67%	88%	109%	131%	147%	
International	2.94	0.11	0.29	0.66	1.31	2.36	3.78	8.4
% growth over previous year		-96%	175%	125%	100%	80%	60%	
% of FY20		4%	10%	22%	45%	80%	129%	
Total	22.02	7.44	13.13	17.35	22.18	27.40	31.82	111.88
% growth over previous year		-66%	76%	32%	28%	24%	16%	
% of FY20		34%	60%	79%	101%	124%	145%	
Air Traffic Movement ('000s)								
Domestic	141.79	62.80	103.62	129.53	155.43	183.41	201.75	773.74
% growth over previous year		-56%	65%	25%	20%	18%	10%	
% of FY20		44%	73%	91%	110%	129%	142%	
International	23.97	6.20	9.30	12.09	14.51	19.59	29.38	84.87
% growth over previous year		-74%	50%	30%	20%	35%	50%	
% of FY20		26%	39%	50%	61%	82%	123%	
Total	165.76	69.00	112.92	141.62	169.94	202.99	231.13	858.6
% growth over previous year		-58%	64%	25%	20%	19%	14%	
% of FY20		42%	68%	85%	103%	122%	139%	

- 4.1.2. AAI further stated that the traffic data in the MYTP was updated up to FY 2019-20 as per actuals and thereafter a growth rate from FY 2020-21 to FY 2025-26 was considered as per its projections.

4.2. Authority's analysis regarding Traffic for Third Control Period

- 4.2.1. The Authority has taken note of the impact that the Covid-19 pandemic has had on the aviation sector and the resultant disruption in air traffic demand (both domestic and international) while analysing AAI's submission of traffic forecast for Third Control Period at NSCBIA, Kolkata. The Authority also evaluated recent trends in air traffic (Passenger and ATMs) for the purpose of traffic projections.

- 4.2.2. As per AAI's submission, the domestic and international pre-pandemic passenger traffic level is expected to return by FY 2023-24 and FY 2025-26 respectively; similar trends are expected by AAI in the case of the revival of ATM traffic as well.
- 4.2.3. The Authority notes that the domestic passenger traffic growth in FY 2020-21 was bouncing back after being impacted by the Covid-19 pandemic. However, the second wave of the pandemic has again hit the sector adversely. The Authority is cognizant of the impact that the second wave has had on the aviation sector and accordingly has remained conservative in its estimation of traffic.
- 4.2.4. The Authority has computed the 5-year CAGR and 3-year CAGR using the actual traffic data till FY 2019-20, as FY 2019-20 has not been adversely impacted by the Covid-19 pandemic (except for a small impact towards the end of the year). The following table provides the details:

Table 59: CAGR for passenger traffic and ATM traffic at NSCBIA, Kolkata

FY ending March 31	5 Year CAGR (in %)	3 Year CAGR (in %)
Passenger Traffic		
Domestic	16.24	10.90
International	8.82	9.64
Total	15.06	10.73
Air Traffic Movement		
Domestic	11.89	10.26
International	8.06	9.28
Total	11.28	10.11

- 4.2.5. The Authority has taken note of AAI's comment regarding traffic for the Third Control Period. Considering the ongoing Covid-19 pandemic, the Authority has reviewed various reports by international agencies and its own traffic assessment based on discussion with various industry bodies. Based on this, the Authority projected passenger and ATM traffic for the Third Control Period at NSCBIA, Kolkata.
- 4.2.6. Further, the Authority has also benchmarked the traffic growth rates at NSCBIA, Kolkata with other comparable airports such as those of BIAL, CIAL and HIAL. Since the tariff orders of these airports have been issued, a detailed stakeholder discussion has been conducted on the same, thus ensuring that the traffic growth rates at NSCBIA, Kolkata are in line with industry expectations.
- 4.2.7. The corresponding traffic for passengers and ATM as considered by the Authority for Third Control Period are given below:

Table 60: Traffic projections proposed to be considered for Third Control Period by the Authority

FY ending March 31	2020 (actuals)	2021	2022	2023	2024	2025	2026	Total
Passenger Traffic (in Mn.)								
As per AAI								
Domestic	19.08	7.34	12.84	16.69	20.87	25.04	28.05	103.49
% growth over previous year		-62%	75%	30%	25%	20%	12%	
% of FY20		38%	67%	88%	109%	131%	147%	
International	2.94	0.11	0.29	0.66	1.31	2.36	3.78	8.4
% growth over previous year		-96%	175%	125%	100%	80%	60%	
% of FY20		4%	10%	22%	45%	80%	129%	

FY ending March 31	2020 (actuals)	2021	2022	2023	2024	2025	2026	Total
Total	22.02	7.44	13.13	17.35	22.18	27.40	31.82	111.88
% growth over previous year		-66%	76%	32%	28%	24%	16%	
% of FY20		34%	60%	79%	101%	124%	145%	
As per Authority								
Domestic	19.08	7.59	12.98	20.03	20.99	22.90	26.70	103.6
% growth over previous year		-60%	71%	54%	5%	9%	17%	
% of FY20 traffic		40%	68%	105%	110%	120%	140%	
International	2.94	0.14	0.68	2.21	2.94	3.18	3.41	12.42
% growth over previous year		-95%	375%	225%	33%	8%	7%	
% of FY20 traffic		5%	23%	75%	100%	108%	116%	
Total	22.02	7.73	13.66	22.24	23.93	26.07	30.12	116.02
% growth over previous year		-65%	77%	63%	8%	9%	16%	
% of FY20 traffic		35%	62%	101%	109%	118%	137%	
Air Traffic Movement (in 000's)								
As per AAI								
Domestic	141.79	62.80	103.62	129.53	155.43	183.41	201.75	773.74
% growth over previous year		-56%	65%	25%	20%	18%	10%	
% of FY20		44%	73%	91%	110%	129%	142%	
International	23.97	6.20	9.30	12.09	14.51	19.59	29.38	84.87
% growth over previous year		-74%	50%	30%	20%	35%	50%	
% of FY20		26%	39%	50%	61%	82%	123%	
Total	165.76	69.00	112.92	141.62	169.94	202.99	231.13	858.6
% growth over previous year		-58%	64%	25%	20%	19%	14%	
% of FY20		42%	68%	85%	103%	122%	139%	
As per Authority								
Domestic	141.79	66.42	96.61	149.18	156.29	170.49	198.91	771.48
% growth over previous year		-53%	45%	54%	5%	9%	17%	
% of FY20 traffic		47%	68%	105%	110%	120%	140%	
International	23.97	5.75	5.42	17.68	23.58	25.46	27.35	99.49
% growth over previous year		-76%	-6%	226%	33%	8%	7%	
% of FY20 traffic		24%	23%	74%	98%	106%	114%	
Total	165.76	72.17	102.04	166.87	179.86	195.96	226.26	870.99
% growth over previous year		-56%	41%	64%	8%	9%	15%	
% of FY20 traffic		44%	62%	101%	109%	118%	136%	

4.3. Authority's Proposal regarding Traffic for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to traffic for the Third Control Period

- 4.3.1. To consider passenger traffic and ATM projections as given in Para 4.2.5 (Table 60) for the determination of tariff for the Third Control Period.
- 4.3.2. To true-up the traffic of Third Control Period based on the actuals at the time of tariff determination of the Fourth Control Period.

5. REGULATORY ASSET BASE AND DEPRECIATION FOR THIRD CONTROL PERIOD

5.1. AAI's submission regarding RAB and Depreciation for the Third Control Period

5.1.1. The aeronautical capital additions submitted by AAI can be divided into the following heads:

- I. Capital additions deferred from the Second Control Period to the Third Control Period
- II. New capital additions proposed for the Third Control Period

5.1.2. These are detailed in the same sequence in the following paragraphs.

I. Aeronautical capital additions deferred from the Second Control Period

5.1.3. As per AAI's MYTP submission, capital additions deferred from the Second Control Period to the Third Control Period are as follows:

- a. Extension of F-taxi track towards northern side
- b. Resurfacing secondary runway 19R/01L
- c. Widening of E-taxi track and construction of fillet for movement of C category aircrafts
- d. Reconstruction of G-taxi track
- e. Extension of apron on south side of integrated terminal building
- f. Relocation of mosque
- g. Relocation of Civil Maintenance Department (CMD) and Electrical Maintenance Department (EMD) store
- h. Construction of emergency medical unit
- i. Facia lighting of integrated terminal building for two buildings
- j. Augmentation of power supply - east side of runway

5.1.4. Details regarding the capital expenditure for the above projects as submitted by AAI for the Third Control Period are as follows:

Table 61: Aeronautical capital additions deferred from the Second Control Period to the Third Control Period submitted by AAI

S. No.	Name of Work	Year of Cap. (FY)	Project Cost	Financing Allowance	IDC	Total amount (incl. FA, IDC)
1	Extension of F-taxi track towards northern side	2022-23	265.88	17.36	12.60	295.84
2	Resurfacing secondary runway 19R/01L	2021-22	37.34	4.00	0.48	41.82
3	Widening of E-taxitrack and construction of fillet for movement of C-category aircrafts	2021-22	5.56	0.62	0.05	6.23
4	Extension of apron on south side of NITB	2024-25	30.00	0.76	1.14	31.89
5	Construction of emergency medical unit	2021-22	1.82	0.29	0.01	2.13
6	Augmentation of power supply - east side of runway	2021-22	4.01	-	-	4.01
	Total		344.61	23.03	14.28	381.92

II. New aeronautical capital additions for the Third Control Period as submitted by AAI

5.1.5. Details of the new capital additions submitted by AAI in the Third Control Period are as follows:

Table 62: New Aeronautical Capital Additions for the Third Control Period submitted by AAI

S. No.	Name of Work	Year of Cap. (FY)	Project Cost	Financing Allowance	IDC	Total amount (incl. FA, IDC)
1	Capacity enhancement at terminal building	2025-26	123.00	4.74	7.11	134.86
2	Metro connectivity to terminal building	2024-25	95.00	4.77	7.16	106.94
3	Construction of remote bays on the eastern side of the main runway	2024-25	97.42	-	-	97.42
4	Construction of CISF complex on Narayanpur side	2024-25	77.71	2.26	3.39	83.36
5	Relocation of Air India NTA building	2024-25	51.55	-	-	51.55
6	Other capex works (less than Rs. 50 Cr.)		164.70	29.02	17.47	211.17
7	Total		609.38	40.79	35.13	685.30

Additions to RAB

5.1.6. AAI has proposed the following capitalisation (additions to RAB) for the Third Control Period:

Table 63: Additions to RAB for the Third Control Period submitted by AAI

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
Land	-	-	-	-	-	-
Runways, Taxiways, Aprons	65.98	294.88	-	129.31	-	490.18
Roads, Bridges & culvert	6.87	-	-	106.94	-	113.81
Terminal/Other Buildings	10.92	-	-	-	127.24	138.16
Building - Residential	40.54	-	17.76	134.92	-	193.21
Boundary Wall	5.17	-	-	-	-	5.17
Computer, IT Hardware & Access.	1.48	-	-	-	-	1.48
Computer Software	37.29	-	-	-	-	37.29
Tools and Equipment	4.22	5.00	-	3.00	2.50	14.72
Electrical Installations	32.11	-	28.64	-	-	60.75
Office Equipment	-	-	-	-	-	-
Furniture & Fixtures	-	-	-	3.20	2.32	5.52
X-Ray Baggage	-	-	5.00	-	-	5.00
CFT	0.98	-	-	-	-	0.98
Total	205.56	299.88	51.40	377.36	132.06	1,066.26

Depreciation

5.1.7. AAI has computed depreciation based on the rates prescribed by AERA vide Order No. 35/2017-18 dated 12 January 2018, in the matter of determination of useful life of Airports Assets. For the additions to RAB, AAI has calculated the depreciation during year of capitalisation on 50% of the asset value (assuming that the asset is capitalised in the middle of the financial year). The following table summarises the depreciation rates considered for additions and deletions to RAB:

Table 64: Depreciation rates as per AAI's Submission and the Authority

Assets (in %)	As submitted by AAI	As per Order No. 35/2017-18
Land	0.00	0.00
Runways, Taxiways, Aprons	3.33	3.33
Roads, Bridges & culvert	10.00	10.00
Terminal/Other Buildings	3.33	3.33 / 1.67
Building - Residential	3.33	3.33 / 1.67
Computer, IT Hardware & Access.	33.33	33.33
Computer Software	16.67	16.67
Plant and Machinery	6.67	6.67
Electrical Installations	10.00	10.00
Office Equipment	20.00	20.00
Furniture & Fixtures	14.29	14.29
X-Ray Baggage	6.67	6.67
CFT	6.67	6.67

5.1.8. The following table summarises AAI's submission of aeronautical depreciation for various assets in Third Control Period.

Table 65: Aeronautical Depreciation for Third Control Period submitted by AAI

FY ending March 31	2022	2023	2024	2025	2026	Total
Land	-	-	-	-	-	-
Runways, Taxiways, Aprons	13.96	19.74	24.65	26.80	28.53	113.69
Roads, Bridges & culvert	11.44	11.67	11.63	16.98	22.32	74.04
Terminal/Other Buildings	59.49	59.61	59.61	59.60	61.72	300.03
Building - Residential	1.37	2.05	2.33	4.74	6.95	17.44
Boundary Wall	1.64	1.77	1.73	1.60	1.60	8.33
Computer, IT Hardware & Access.	4.19	3.79	3.13	2.19	1.26	14.56
Computer Software	4.89	8.59	8.56	8.25	7.95	38.25
Tools and Equipment	7.49	7.80	7.86	7.82	8.01	38.98
Vehicles	0.37	0.35	0.25	0.22	0.14	1.32
Solar Plant	4.00	4.00	4.00	4.00	4.00	19.98
Electrical Installations	62.23	62.21	17.32	15.78	14.96	172.49
Office Equipment	1.52	1.51	1.46	0.73	0.01	5.23
Furniture & Fixtures	11.06	10.45	10.41	10.51	10.78	53.20
X-Ray Baggage	9.22	9.16	9.33	9.49	9.49	46.70
CFT	2.87	2.90	2.90	2.90	2.90	14.46
Total	195.74	205.59	165.15	171.60	180.61	918.69

RAB for Third Control Period

5.1.9. As per AAI's submission, the net closing RAB of FY 2020-21 has been considered as the opening RAB for FY 2021-22 after accounting for additions and deletions to RAB and depreciation. Considering the above capex plan, additions to RAB, and depreciation working, the RAB for Third Control Period as considered by AAI is shown below:

Table 66: RAB at NSCBIA, Kolkata during Third Control Period submitted by AAI

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
Opening RAB [1]	2,150.78	2,160.60	2,254.90	2,141.15	2,346.91	-

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
Additions to RAB [2]	205.56	299.88	51.40	377.36	132.06	1,066.26
Deletions [3]	-	-	-	-	-	-
Depreciation [4]	195.74	205.59	165.15	171.60	180.61	918.69
Closing RAB [(1 + 2) – (3 + 4)] [5]	2,160.60	2,254.90	2,141.15	2,346.91	2,298.35	-
Average RAB [(1 + 5)/2]	2,155.69	2,207.75	2,198.02	2,244.03	2,322.63	-

5.2. Authority's examination of RAB and Depreciation for Third Control Period

5.2.1. The Authority has analysed the RAB and capital additions submitted by AAI for the Third Control Period. For the purpose of analysis, the Authority has grouped the aeronautical capital additions into three categories, as follows:

- I. Capital additions deferred from the Second Control Period to the Third Control Period
- II. New capital additions proposed for the Third Control Period

5.2.2. The Authority proposes to readjust (reduce) 1% of the project cost from ARR/target revenue as readjustment in case any particular project is not capitalised as per the tariff order. The Authority further clarifies that in case there is delay in completion of the project beyond the approved timeline given in the tariff order due to any reason beyond the control of AAI or its contracting agencies and is justified, the same would be considered by the Authority while truing up at the time of tariff determination of the Fourth Control Period.

5.2.3. The Authority has taken into account the lower traffic caused by the Covid-19 pandemic and the resultant stress on the financials of all the stakeholders of civil aviation while analysing the requirement for capital expenditure for the Third Control Period. In this background, the Authority analysed AAI's submission and has accordingly proposed capital additions for the Third Control Period.

I. **Aeronautical capital additions deferred from the Second Control Period to the Third Control Period**

5.2.4. The following table summarises details of the capital additions that were deferred from the Second Control Period to the Third Control Period, as submitted by AAI.

Table 67: Aeronautical capital additions deferred from the Second Control Period to Third Control Period submitted by AAI

Ref	Project / Group	Approved in SCP (1)	Proposed Cost by AAI in TCP (2)	Cost overrun (3) = (2) – (1)
A	Airside Capacity Enhancement: extension of F -taxi track; construction of 3 RETs, 4 aprons, shoulders and box culvert	37.22	265.88	228.66
B	Resurfacing secondary runway 19R/01L	40.00	37.34	(2.66)
C	Reconstruction of B-Taxi & E-Taxi	3.00	5.56	2.56
D	Extension of apron on south side of NITB	22.49	30.00	7.51
E	Construction of emergency medical unit	0.90	1.82	0.92
F	Augmentation of power supply - east side of runway	7.00	4.01	(2.99)
	Total (A to F)	110.61	344.61	234.00
	Financing Allowance	-	23.03	23.03
	IDC	-	14.28	14.28

Ref	Project / Group	Approved in SCP (1)	Proposed Cost by AAI in TCP (2)	Cost overrun (3) = (2) – (1)
	Total (including FA and IDC)	110.61	381.92	271.31

(A) Air capacity enhancement

- 5.2.5. The Authority has noted that the approved aeronautical cost of “extension of F-taxi track towards the northern side” was Rs. 37.22 Cr. in the Second Control Period Order, and that AAI has submitted a revised aeronautical cost of Rs. 265.88 Cr. for the Third Control Period. AAI submitted that the revised cost is based on the actual awarded amount and that the work has attained 73% of cumulative physical progress as on August 2021.
- 5.2.6. “Extension of F-taxi track towards the northern side” was scheduled to be capitalised in FY 2018-19 in the Second Control Period. AAI has submitted that the scope of work approved in the Second Control Period Order was expanded by including construction of parking bays, RETs, and aprons in order to accommodate the sudden increase in air traffic at NSCBIA, Kolkata from FY 2017-18.
- 5.2.7. A brief of the proposed plan of the airside capacity enhancement at NSCBIA, Kolkata was provided in the Project Investment File (PIF) for the NSCBIA, Kolkata’s AUCC meeting. The purpose of the work was to accommodate the increasing traffic at the airport. AAI submitted that the work would comprise civil as well as electrical works.
- 5.2.8. AAI conducted an airport user consultative committee (AUCC) meeting as per decision 6.b. of the Second Control Period Order on 16.09.2021. The minutes of the same were circulated vide email dated 24.09.2021 (“Minutes of AUCC Meeting held on 16.09.2021 at NSCBI Airport, Kolkata”). Minutes of the AUCC meeting are given in Annexure IV. The Authority notes that various stakeholders have raised the possibility of deferring non-essential capital additions to the Fourth Control Period in order to reduce the burden on airport users. The Authority has analysed the project plan pertaining to the airside capacity enhancement and notes that this particular capital addition is essential to maintain operational efficiency at the airport. Hence, the Authority proposes to consider the same for the Third Control Period.
- 5.2.9. Following are the civil works that AAI is taking up under this project, as per the submission:
- Development of 8 parking bays for Code-C aircrafts in front of the old Air India hangars by strengthening existing apron of area 22,264 sq.m. to ensure desired pavement classification number.
 - Expansion of apron by 44,050 sq.m. for Code-E aircrafts, in front of cargo terminal and reconfigure the parking layout to accommodate 8 Code-C aircrafts.
 - Construction of RETs with length and width of 335m and 23m respectively, and 7.5m wide shoulders along both sides for Code-E aircrafts.
 - Extend F taxi track for Code-E aircrafts by linking the beginning of runway 19R and 19L with existing F taxi track and A taxi track, to achieve a length and width of 2,200m and 23m respectively along with 7.5m wide shoulders along both sides of the taxi track.
 - Provision of fillets at intersection of RET and taxi track with runway and apron.
 - Levelling and grading of taxiway strip for extended F taxi track and RET.
 - Provision of standard markings on apron and taxi tracks.
 - Provision of drainage system of the apron, connection to main storm water drains and culverts below the taxi track or apron.
- 5.2.10. Following are the electrical works that AAI is taking up under this project, as per the submission:

- i. Provision of apron edge lights, taxi track edge lights, and lighted mandatory information signs including cabling works.
- ii. Provision of high mast apron flood lights at appropriate locations along with raising and lowering device.
- iii. Provision of trenches for electrical and communication cables.

5.2.11. AAI has submitted that the airside capacity enhancement work would create more aircraft parking space, reduce runway occupancy time, and provide more safety for aircrafts through better illumination.

5.2.12. As per the MYTP submission of AAI, the envisaged year of capitalisation of the airside capacity enhancement at NSCBIA, Kolkata is FY 2022-23. However, following an examination of the project by AERA's consultant during the site-visit, the Authority expects the work to be capitalised in FY 2023-24 after taking into account the current status of work. The Authority notes that the normative cost working of airside capacity enhancement at NSCBIA, Kolkata is submitted in a consolidated manner. As per AAI's submission, the cost is Rs. 5,600.12 per sq.m. for the whole project which is below the inflation adjusted normative cost benchmark.

5.2.13. AAI's detailed submission of normative cost working is provided in Appendix III. Since the cost per sq. m. is less than the inflation adjusted normative cost, the Authority proposes to consider the amount submitted by AAI for airside capacity enhancement.

(B) Resurfacing secondary runway 19R/01L

5.2.14. The Authority notes that the approved amount for modification of storm water drain in the Second Control Period was Rs. 40.00 Cr. AAI submitted a revised amount of Rs. 37.34 Cr. in the Third Control Period.

5.2.15. AAI submitted that the work is intended to resurface the secondary runway, which with the passage of time and continued use, resulted in the surface of runway suffering from patches, bleeding, small potholes, undulations, and minor cracks. AAI also submitted that the work started in the Second Control Period and is envisaged to get commissioned in FY 2021-22.

5.2.16. The Authority notes that the cost is within the approved amount of the work as per the Second Control Period tariff order. The Authority proposes to consider the amount submitted by AAI for resurfacing of secondary runway.

(C) Reconstruction B taxi track and E taxi track

5.2.17. The Authority notes that the approved amount for reconstruction of B taxi track and E taxi track in the Second Control Period was Rs. 3.00 Cr. AAI submitted a revised amount of Rs. 5.56 Cr. in the Third Control Period.

5.2.18. The Authority notes that the Second Control Period tariff order approved work only for "widening of E taxi track and construction of fillet for movement of C-category aircrafts," and that the scope of work was increased during the tendering stage. AAI submitted that both B taxi track and E taxi track were combined as their condition had deteriorated.

5.2.19. As per the Second Control Period tariff order, "widening of E taxi track and construction of fillet for movement of C-category aircrafts" was scheduled to be commissioned in FY 2017-18. However, AAI submitted that the work got delayed as the DGCA clearance was obtained on 02.04.2019.

Currently, while the reconstruction of E taxi track is completed, reconstruction of B taxi track is yet to begin. In its MYTP submission, AAI submitted that the work will be commissioned in FY 2021-22. However, following an examination of the project by AERA's consultant during the site-visit, the Authority expects the work to be capitalised in FY 2022-23.

- 5.2.20. As per AAI's submission, the cost per sq.m. of the work is Rs. 3,417.48 per sq.m. Since the cost per sq. m. is less than the inflation adjusted normative cost, the Authority proposes to consider the amount submitted by AAI for reconstruction of B taxi track and E taxi track.

(D) Extension of apron on south side of NITB

- 5.2.21. The Authority notes that the approved amount for "extension of apron on south side of NITB" in the Second Control Period was Rs. 22.49 Cr. AAI submitted a revised amount of Rs. 30.00 Cr. in the Third Control Period.
- 5.2.22. The Authority notes that the Second Control Period tariff order approved work only for "extension of apron on south side of NITB," and that the work has been modified as "extension of apron on line maintenance building side" in the Third Control Period.
- 5.2.23. AAI submitted that the work would remove the currently deteriorated hangars and replace them with an apron in order to increase the capacity of NSCBIA, Kolkata. AAI also submitted that the work is still in the planning stage. Following an examination of the project by AERA's consultant during the site-visit, the Authority expects the work to be capitalised in the Fourth Control Period as this work can only be taken up after removal of existing old hangars. The Authority therefore proposes to not consider this work in the Third Control Period.

(E) Construction of emergency medical unit

- 5.2.24. The Authority notes that the approved amount for "construction of emergency medical unit" in the Second Control Period was Rs. 0.90 Cr. AAI submitted a revised amount of Rs. 1.82 Cr. in the Third Control Period. AAI submitted that the revised amount was based on the actual awarded amount after tendering.
- 5.2.25. AAI further submitted that the work was taken up as it is a requirement of the revised Fire Order IV. AAI submitted that the work started in the Second Control Period itself and that its commissioning got delayed to FY 2021-22 due to the Covid-19 pandemic.
- 5.2.26. Since the work is a requirement of the Fire Order IV (in compliance with plans of CAT VII to X), and since the revised amount is based on the actual awarded amount after tendering, the Authority proposes to consider the work in the Third Control Period.

(F) Augmentation of power supply at east side of runway

- 5.2.27. The Authority notes that the approved amount for "augmentation of power supply at east side of runway" in the Second Control Period was Rs. 7.00 Cr. AAI submitted a revised amount of Rs. 4.01 Cr. in the Third Control Period, which according to AAI was based on the actual awarded amount after tendering.
- 5.2.28. AAI submitted that the work was taken up to feed the new hangars with electricity. Since there is a cost saving of Rs. 2.99 Cr., the Authority proposes to consider the work in the Third Control Period.

Aeronautical capital additions proposed to be considered by the Authority for capital works deferred from the Second Control Period to the Third Control Period

5.2.29. Based on the examination in the paragraphs above, the Authority proposes to consider the capital additions of projects deferred from the Second Control Period to the Third Control Period as provided in Table 68.

Table 68: Aeronautical capital additions deferred from the Second Control Period to Third Control Period proposed to be considered by the Authority

Ref	Project / Group	Submitted by AAI	Proposed by Authority	Difference
A	Airside Capacity Enhancement: extension of F - taxi track; construction of 3 RETs, 4 aprons, shoulders and box culvert	265.88	265.88	-
B	Resurfacing secondary runway 19R/01L	37.34	37.34	-
C	Reconstruction of B-Taxi & E-Taxi	5.56	5.56	-
D	Extension of apron on south side of NITB	30.00	-	(30.00)
E	Construction of emergency medical unit	1.82	1.82	-
F	Augmentation of power supply - east side of runway	4.01	4.01	-
	Total (A to F)	344.61	314.61	(30.00)
	Financing Allowance	23.03	-	(23.03)
	IDC	14.28	13.15	(1.14)
	Total (including FA, IDC)	381.92	327.75	(54.17)

II. New aeronautical capital additions proposed for the Third Control Period as submitted by AAI

5.2.30. Details regarding the new capital additions for the Third Control Period as submitted by AAI is given in Table 69:

Table 69: New aeronautical capital additions for the Third Control Period submitted by AAI

Ref	Project / Group	No.	Particulars	Proposed cost (Rs. Cr.)
G	Runways, taxiways, and aprons	G.1	Construction of remote bays on the eastern side of the main runway	97.42
		G.2	Rehabilitation to K-taxi track, part of secondary runway and A-taxi track	9.26
		G.3	Reconstruction of broken slab of bay no. 3 and 4	5.94
		G.4	Supply and laying HDPE pipes	1.55
		G	Sub-total (runways, taxiways, and aprons)	114.17
H	Roads, bridges, and culverts	H.1	Metro connectivity to new and existing terminal building	95.00
		H.2	Repair and raising of perimeter road	6.47
		H	Sub-total (roads, bridges, and culverts)	101.47
I	Terminal building	I.1	Capacity enhancement at terminal building	116.05
		I.2	Strengthening of NIPTB roofing system	10.59
		I	Sub-total (terminal building)	126.64
J	Boundary wall	J	Construction of standard operation boundary wall in place of old damaged non-standard boundary wall	4.86
K	Other buildings	K.1	Construction of CISF complex on Narayanpur side	77.71
		K.2	Relocation of Air India NTA building	51.55

Ref	Project / Group	No.	Particulars	Proposed cost (Rs. Cr.)
		K.3	Construction of 3 hangars (Narayanpur side)	25.93
		K.4	Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (civil work)	16.80
		K.5	Construction of multi activity complex	7.42
		K.6	Other buildings	4.18
		K	Sub-total (other buildings)	183.59
L	Computers and software	L.1	DIGI yatra	34.51
		L.2	Others	4.26
		L	Sub-total (computers and software)	38.77
M	Tools and equipment	M.1	Procurement of 2 runway mechanical sweepers and 1 airport surface friction tester (ASFT)	5.00
		M.2	Others	9.72
		M	Sub-total (tools and equipment)	14.72
N	Electrical installations	N.1	Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (electrical works)	25.20
		N.2	Others	28.24
		N	Sub-total (electrical installations)	53.44
O	Others	O	Others	11.50
	Total			649.15
	Financing allowance			14.85
	IDC			20.35
	Total (including FA and IDC)			684.34

5.2.31. The Authority has examined the new capital additions as submitted by AAI. Details of the same are elaborated in the following paragraphs.

(G) Runways, taxiways, and aprons

5.2.32. AAI submitted that the pavement works at NSCBIA, Kolkata are expected to get commissioned between FY 2021-22 and FY 2024-25. It also submitted that these works are necessary to accommodate the increasing ATM traffic.

G.1. Construction of remote bays on the eastern side of the main runway

5.2.33. The Authority received AAI's submission of this work separately via an email dated 11.10.2021 ("Kolkata MYTP: Annexure I – TCP Status"). AAI submitted that the work is to be capitalised in FY 2024-25. Since the capital work is expected to improve the operational efficiency of NSCBIA, Kolkata, the Authority proposes to consider the said capital addition in the Third Control Period.

G.2. Rehabilitation to K-taxi track, part of secondary runway and A-taxi track

5.2.34. AAI submitted that the rehabilitation work amounting to Rs. 9.26 Cr. was required due to cracking and undulation of the taxiway. and that the project cost is based on the actual awarded amount after tendering. Therefore, the Authority proposes to consider the amount submitted by AAI for rehabilitation to K-taxiway, part of secondary runway and A-taxi track.

G.3. Reconstruction of broken slab of bay no. 3 and 4

- 5.2.35. AAI submitted that the reconstruction work of broken slab of bay no. 3 and 4 with project cost of Rs. 5.94 Cr. is based on the actual awarded amount and is expected to be commissioned following DGCA approval in FY 2021-22.
- 5.2.36. Moreover, since the cost per sq. m. is less than the inflation adjusted normative cost, the Authority proposes to consider the amount submitted by AAI for reconstruction of broken slab of bay no. 3 and 4.

G.4. Supply and laying HDPE pipes

- 5.2.37. AAI submitted that the supply and laying of HDPE pipes in taxiways and runways will be done through horizontal direct drilling to have safe and dedicated pipes to lay cables for maintenance of ground lighting facilities as per the ICAO tender. AAI submitted that the project cost of Rs. 1.55 Cr. is the awarded amount after tendering.
- 5.2.38. AAI also submitted that the construction agency of this project applied for arbitration and stated that an arbitrator was appointed. According to AAI's submission the first hearing was held on 03.03.2020, but the arbitration process subsequent to the submission of the final arguments by AAI got delayed due to Covid-19 pandemic and the arbitrator's health. Due to the lack of clarity on when the arbitration decision is expected, the Authority proposes not to consider the said capital addition in the Third Control Period.

(H) Roads, Bridges and Culverts

H.1. Metro connectivity to new and existing terminal building

- 5.2.39. AAI submitted that the project entails the construction of a 200-metre subway exclusively for airport passengers, that will connect Bimanbandar metro station to the departure terminal of NSCBIA, Kolkata. AAI also submitted that a MoU was signed and executed between AAI and Metro Railways on 30.03.2021. The project is expected to improve services to passengers traveling to and from the Airport and overall operations considering the increasing traffic at NSCBIA, Kolkata. The Authority notes that the project cost of Rs. 95.00 Cr. is a tentative cost by AAI. Since the work is expected to contribute towards passenger facilitation at NSCBIA, Kolkata, the Authority proposes to consider the same in the Third Control Period.

H.2. Repair and raising of perimeter road

- 5.2.40. AAI submitted that the project has been taken up to avoid inundations and also to remove the potholes and cracks on the perimeter road. AAI submitted that the project cost of Rs. 6.47 Cr. is the awarded amount by AAI after the tendering process.
- 5.2.41. AAI further submitted that the project is expected to get capitalised in FY 2021-22. Following an examination of the project by AERA's consultant during the site-visit, the Authority expects the work to be capitalised in FY 2022-23 considering the progress in work so far.

(I) Terminal Building

I.1. Capacity enhancement at terminal building

- 5.2.42. AAI submitted that an increase in traffic and aircraft traffic at NSCBIA, Kolkata before the Covid-19 pandemic would often result in heavy congestion of the terminal building during peak hours. Considering the traffic projections at NSCBIA, Kolkata for the Third Control Period, AAI expects

that the capacity of the terminal building will get saturated by FY 2024-25. As a result, AAI proposes to undertake capex worth Rs. 123.00 Cr. (of which the aeronautical component is Rs. 116.05 Cr.) to increase capacity of the existing terminal building by undertaking the following:

- i. Increase in departure security hold capacity by covering cut-outs through additional metal deck construction of 1,200 sq.m. Additionally, AAI proposes to provide escalator to access departure's upper floor at grid 36 as per layout since existing access is from one corner of terminal building.
- ii. Construction of swing gates, partitions and filling of cut-outs as per layout plan to increase the availability of aerobridge in dual use configuration for domestic portion of integrated terminal building in order to maximize usability for domestic flight operations to a total of 14 aerobridges where 6 aerobridges (namely 12-12A, 14-15 and 16-17) will be used based on demand and corresponding area for use will be 933 sq.m., 1,877 sq.m., and 1,432 sq.m. respectively.
- iii. Construction of international immigration and security check along with security hold area having area of 4,281sq.m.
- iv. Construction of a new SHA with 4 bus boarding gates, airside kerb, and road connecting to existing road network having total SHA area of 1,606 sq.m.

5.2.43. The cost per sq.m. for the above terminal building work was submitted by AAI vide an email correspondence dated 09.12.2021 ("Normative cost for Capacity Enhancement at Terminal Building"). The Authority noted that the normative cost working submitted by AAI did not include the cost of modification works pertaining to cut-out fillings, piling foundation work, and basement work. The details of the same are provided in the table below:

Table 70: Normative cost calculation for capacity enhancement at terminal building submitted by AAI

Description	Amount (in Rs. Cr.)	Area (in sq.m.)	Rate per sq.m.
Cost excluding modification work, consultancy charges, Corporate Environment Responsibility, and GST (A)	80.90	11,774	68,711
Cost per sq. m for piling work (B)	-		10,371
Cost per sq. m. (C = A - B)	-		58,340
Normative Cost benchmark	-		1,21,665

5.2.44. The Authority notes that the passenger traffic at NSCBIA, Kolkata is expected to be around 30.12 MPPA by FY 2025-26. Since the existing design capacity at NSCBIA, Kolkata is 26 MPPA, the Authority is of the opinion that a terminal building expansion would be essential to maintain operational efficiency at the airport and thus, proposes to consider the said capital addition. In line with the working provided in the table above as well as the Authority's proposal to consider a terminal building ratio of 90%:10%, the Authority proposes to consider Rs. 116.05 Cr (excluding IDC) as the cost of capacity enhancement at terminal building.

1.2. Strengthening of NIPTB roofing system

5.2.45. AAI submitted that there was a need to strengthen the NIPTB roofing system as per the latest tender invitation due to frequent cyclones in the region. AAI also submitted that the project was capitalised on 31.08.2021, and that the project cost of Rs. 10.59 Cr. is based on the awarded amount by AAI after the tendering process. Since the capital work is essential in nature, the Authority proposes to consider the same in the Third Control Period.

(J) Construction of standard operation boundary wall in place of old damaged non-standard boundary wall

5.2.46. AAI submitted that this project entailed construction of standard operation boundary walls at multiple places wherever the existing old brick walls are damaged. AAI submitted that the project cost of Rs. 4.86 Cr. is based on the awarded amount by AAI after the tendering process.

5.2.47. AAI also submitted that the work is expected to get completed in FY 2021-22. Following an examination of the project by AERA's consultant during the site-visit, the Authority expects the work to be capitalised in FY 2022-23 considering the progress in work so far.

(K) Other Buildings**K.1. Construction of CISF complex on Narayanpur side**

5.2.48. AAI submitted that the existing CISF facilities are accommodated in temporary buildings and need to be relocated at Narayanpur as the temporary buildings are in dilapidated conditions. AAI submitted that the Department of Planning has prepared a layout plan and that the same has been approved by the Security Directorate.

5.2.49. Following are the civil works that AAI is taking up under this project, as per the submission:

- i. Demolition /relocation of structures/trees failing into proposed layout.
- ii. Complete construction of different building with all internal and external development works including parking, roads, pavements, open green area including horticulture-landscaping etc.
- iii. Relocation and construction of substation, water supply, drainage system, sewerage system & pumping arrangement system, and water filtration system as per norms and as per site condition.
- iv. Provision of rainwater harvesting system, sewerage treatment plan, and water treatment plant as per norms requirement and site condition.
- v. Provision for extra floor in the structural design as per the height clearance.
- vi. Any other civil work required for smooth operation and maintenance of CISF complex.

5.2.50. Following are the electrical works that AAI is taking up under this project, as per the submission:

- i. Internal and External electrification including elevators for CISF barrack, hostel, training centre and any other structures per layout, parking, open ground and roads.
- ii. Augmentation of main power supply, substation equipment, DG sets for secondary power supply and associated ancillary building.
- iii. Provision of AC units as per requirement.
- iv. Provision of adequate number of signages and marking outside the buildings, parking area for guidance of visitors.

5.2.51. AAI submitted that the project is expected to be capitalised by FY 2025-26. Moreover, AAI submitted that the project cost of Rs. 77.71 Cr. is an estimated cost.

5.2.52. The Authority notes that AAI has not submitted a detailed cost-benefit analysis regarding the construction of CISF complex on Narayanpur side. Further, the Authority notes that AAI has not undertaken its own detailed due diligence of the project requirement which includes, among other things evaluation of the projections of the CISF staff at the airport based on the traffic forecasts and

diligence of proposed housing facilities. The Authority is of the view that a cost-benefit analysis needs to be undertaken which accounts for construction costs of the CISF complex and savings from reimbursement of existing house-rent allowance (HRA). Therefore, the Authority proposes to exclude the proposal for construction of CISF complex in the Third Control Period and consider it during the tariff determination of the Fourth Control Period after reviewing the above requirements.

K.2. Relocation of Air India NTA building

- 5.2.53. AAI submitted that the project cost of Rs. 51.55 Cr. for relocation of Air India NTA building is an estimated cost, and that it is expected to get completed in FY 2024-25. The Authority notes that the project is still in its planning stage and that AAI has not provided any additional information on the same. Therefore, the Authority proposes not to consider the capital addition in the Third Control Period.

K.3. Construction of 3 hangars (Narayanpur side)

- 5.2.54. AAI submitted that the project cost of Rs. 25.93 Cr. for construction of 3 hangars on the Narayanpur side is an estimated cost and that it is expected to get completed in FY 2021-22. The project is expected to increase operational efficiency at the air side. Therefore, the Authority proposes to consider the capital addition.

K.4. Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (civil work)

- 5.2.55. The Authority notes that AAI submitted a project cost of Rs. 16.80 Cr. Further, AAI submitted that the project is expected to be completed in FY 2024-25. The Authority notes that the construction of a new CCR hall cum sub-station is crucial to maintain the operational efficiency on the air side and thus proposes to consider the same in the Third Control Period.

K.5. Construction of multi activity complex

- 5.2.56. AAI submitted that the project is required to generate space in existing administration building in order to shift existing offices. AAI also submitted that the project cost of Rs. 7.42 Cr. is the awarded amount by AAI after the tendering process, and that the project is expected to get completed in FY 2021-22. Since the project is expected to accommodate offices for the administration of the airport, the Authority proposes to consider the same in the Third Control Period.

K.6. Other buildings

- 5.2.57. AAI submitted that this includes work on (i) sinking 7 borewells; and (ii) construction of hangars and other civil works at Narayanpur side. AAI submitted that the old borewell were required to be relocated due to the ongoing metro works and that the new borewell would also feed the new ATC tower. AAI also submitted that other than the construction of hangars at Narayanpur side, AAI would construct an underground tank, a pump room, a tube well for water supply and a drainage and boundary wall.
- 5.2.58. Further, AAI submitted that the project costs are awarded amounts by AAI after the tendering process. Since these works are operational requirements at the airport, the Authority proposes to consider them as capital additions in the Third Control Period.

(L) Computers and Software**L.1. DIGI Yatra**

- 5.2.59. AAI submitted that the project cost of Rs. 34.51 Cr. is the awarded amount by AAI after the tendering process. The scope of work of the project as per AAI's submission entails designing, development, testing, implementation, and operations and maintenance of e-boarding – Biometric Boarding System (BBS). AAI submitted that the project has been executed by AAI as per MoCA guidelines.
- 5.2.60. AAI also submitted that the work is to be completed in FY 2021-22. The Authority notes that the award letter submitted by AAI includes both capital expenditure costs of Rs.23.26 Cr. as well as operational expenditure costs of Rs. 11.25 Cr. However, the Authority notes that the current status of the work is unclear despite the issuance of the purchase order dated 23.09.2019. The Authority is of the opinion that a delay in the capitalisation of works would unfairly burden the airport users without passing on the benefits to them. Keeping this in view, the Authority proposes to not consider the cost of this project in the capital expenditure for the Third Control Period, but true-up it based on actual incurrence and completion at the time of tariff determination of the Fourth Control Period. The Authority expects AAI to submit the details of incurrence and completion status of the capital works related to DIGI Yatra at the time of true-up of the Third Control Period.

L.2. Others (computers and software)

- 5.2.61. AAI submitted additional works under computers and software citing operational requirements. These works are as follows:
- i. Procurement of desktop computers, servers, workstations and accessories (Rs. 1.48 Cr.)
 - ii. Upgradation of network IPS/IDS security systems and antivirus software licenses for terminal building (Rs. 2.72 Cr.)
 - iii. Procurement of new camera licenses for IVMS application (Rs. 0.05 Cr.)
- 5.2.62. Since the abovementioned items are operational requirements at the airport, the Authority proposes to consider them as capital additions during the Third Control Period.

(M) Tools and Equipment**M.1. Procurement of 2 runway mechanical sweepers and 1 airport surface friction tester (ASFT)**

- 5.2.63. AAI submitted that the procurement of the runway mechanical sweepers and ASFT are operational requirements on the airside. AAI further submitted that the procurement is expected to happen in FY 2022-23. The Authority notes that the project cost of Rs. 5.00 Cr. is an estimated cost by AAI. Since the project is an operational requirement, the Authority proposes to consider the same as a capital addition in FY 2022-23.

M.2. Others (tools and equipment)

- 5.2.64. AAI submitted additional works under tools and equipment citing operational and security requirements. These works are as follows:
- i. Self-bag drop (Rs. 4.04 Cr.)
 - ii. FID (Rs. 3.00 Cr.)
 - iii. PA (Rs. 2.60 Cr.)

- iv. Procurement of 6 thermal cameras for measurement of body temperature of staff members in terminal building (Rs. 0.18 Cr.)

5.2.65. AAI has vide its e-mail dated 11.10.2021 (“Kolkata MYTP: Annexure I – TCP capex status”), submitted revised costs for the above mentioned capital works:

- i. FID (Rs. 1.78 Cr.)
- ii. PA (Rs. 0.24 Cr.)
- iii. Procurement of 6 thermal cameras for measurement of body temperature of staff members in terminal building (Rs. 0.08 Cr.)

5.2.66. Since the abovementioned items are operational and security requirements at the airport, the Authority proposes to consider the capital additions during the Third Control Period after incorporating the revised costs submitted by AAI.

(N) Electrical Installations

N.1. Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (electrical works)

5.2.67. AAI submitted that this project is required to improve the GLF system as it is necessary to feed power supply from western as well as eastern side of the runway. Currently, it is provided from western side of the runway only.

5.2.68. The Authority notes that AAI submitted a project cost of Rs. 25.20 Cr. Further, AAI submitted that the project is expected to be completed in FY 2024-25. As mentioned in para 5.2.55, the Authority notes that the construction of a new CCR hall cum sub-station is crucial to maintain the operational efficiency on the air side and thus proposes to consider the same in the Third Control Period.

N.2. Others (electrical installations)

5.2.69. AAI submitted additional works under electrical installations citing operational and security requirements., and routine replacements These works are as follows:

- i. Airside capacity enhancement: provision of high mast lights (Rs. 4.58 Cr.)
- ii. Provision of internal and external electrical works of annex building and hangar area (Rs. 3.11 Cr.)
- iii. Replacement of existing old GLF circuits of CAT-I approach lighting system including SAPL and PAPI's circuits of both runways (Rs. 2.65 Cr.)
- iv. Electrical works of taxiway C/L and apron stand lighting including CCRs, ALCMS system (Rs. 2.44 Cr.)
- v. SCCTV (Rs. 2.00 Cr.)
- vi. Other routine/minor electrical installations (Rs. 13.46 Cr.)

5.2.70. Since the abovementioned items are operational and security requirements, and routine replacement works at the airport, the Authority proposes to consider them as capital additions during the Third Control Period.

(O) Others (furniture and fixtures, CFT, and security equipment)

5.2.71. AAI submitted additional works under furniture and fixtures, CFT, and security equipment citing operational and security requirements., and routine replacements These works are as follows:

- i. Procurement of 500 chairs (Rs. 3.20 Cr.)
- ii. Procurement of 1000 trolleys (Rs. 2.32 Cr.)
- iii. XBIS (Rs. 5.00 Cr.)
- iv. Provision of fire detection and alarm system at basement of T2 (Rs. 0.98 Cr.)

5.2.72. Since the abovementioned items are operational and security requirements, and routine replacement works at the airport, the Authority proposes to consider them as capital additions during the Third Control Period.

Financing Allowance and IDC

5.2.73. The Authority noted that financing allowance and the methodology for computation of the same is detailed by the Authority in the airport guidelines. However, the Airport Operator has computed financing allowance on the entire WIP amount being capitalised, whereas the Authority is of the view that such an allowance is essentially the IDC for a project and should be provided only on the debt portion of the project funds. Accordingly, the Authority has considered IDC to be provided based on revisions in the proposed capital expenditure discussed for the Third Control Period and the notional gearing considered for the Third Control Period.

5.2.74. Based on the examination by the Authority in the paragraphs above on new capital additions proposed in the Third Control Period, the Authority proposes to consider the capital additions as detailed in the table below:

Table 71: New Aeronautical Capital Additions for the Third Control Period proposed to be considered by the Authority

Reference	Project / Group	No.	Particulars	Submitted by AAI (1)	Proposed by Authority (2)	Difference (3) = (2) – (1)
G	Runways, taxiways, and aprons	G.1	Construction of remote bays on the eastern side of the main runway	97.42	97.42	-
		G.2	Rehabilitation to K-taxi track, part of secondary runway and A-taxi track	9.26	9.26	-
		G.3	Reconstruction of broken slab of bay no. 3 and 4	5.94	5.94	-
		G.4	Supply and laying HDPE pipes	1.55	-	(1.55)
		G	Sub-total (runways, taxiways, and aprons)	114.17	112.62	(1.55)
H	Roads, bridges, and culverts	H.1	Metro connectivity to new and existing terminal building	95.00	95.00	-
		H.2	Repair and raising of perimeter road	6.47	6.47	-
		H	Sub-total (roads, bridges, and culverts)	101.47	101.47	-
I	Terminal building	I.1	Capacity enhancement at terminal building	116.05	116.05	-
		I.2	Strengthening of NIPTB roofing system	10.59	10.59	-
		I	Sub-total (terminal building)	126.64	126.64	-
J	Boundary wall	J	Construction of standard operation boundary wall in place of old damaged non-standard boundary wall	4.86	4.86	-
K	Other buildings	K.1	Construction of CISF complex on Narayanpur side	77.71	-	(77.71)
		K.2	Relocation of Air India NTA building	51.55	-	(51.55)

REGULATORY ASSET BASE AND DEPRECIATION FOR THE THIRD CONTROL PERIOD

Reference	Project / Group	No.	Particulars	Submitted by AAI (1)	Proposed by Authority (2)	Difference (3) = (2) – (1)
		K.3	Construction of 3 hangars (Narayanpur side)	25.93	25.93	-
		K.4	Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (civil work)	16.80	16.80	-
		K.5	Construction of multi activity complex	7.42	7.42	-
		K.6	Other buildings	4.18	4.18	-
		K	Sub-total (other buildings)	183.59	54.33	(129.26)
L	Computers and software	L.1	DIGI yatra	34.51	-	(34.51)
		L.2	Others	4.26	4.26	-
		L	Sub-total (computers and software)	38.77	4.26	(34.51)
M	Tools and equipment	M.1	Procurement of 2 runway mechanical sweepers and 1 airport surface friction tester (ASFT)	5.00	5.00	-
		M.2	Others	9.62	6.14	(3.48)
		M	Sub-total (tools and equipment)	14.62	11.14	(3.48)
N	Electrical Installations	N.1	Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (electrical works)	25.20	25.20	-
		N.2	Others	28.24	28.24	-
		N	Sub-total (electrical installations)	53.44	53.44	-
O	Others			11.50	11.40	(0.10)
	Total			649.06	480.16	(168.90)
	Financing Allowance			14.84	-	(14.84)
	IDC			20.35	10.78	(9.57)
	Total (including FA and IDC)			684.34	490.94	(193.40)

Total aeronautical capital additions proposed by the Authority in the Third Control Period

5.2.75. Based on the discussion above, the total capital additions proposed to be considered by the Authority in the Third Control Period is tabulated below:

Table 72: Aeronautical Capital Additions for the Third Control Period proposed to be considered by the Authority

Reference	Project / Group	No.	Particulars	Submitted by AAI (1)	Proposed by Authority (2)	Difference (3) = (2) – (1)
Capital Additions Deferred from the Second Control Period to the Third Control Period						
A	Airside Capacity Enhancement: extension of F -taxi track; construction of 3 RETs, 4 aprons, shoulders and box culvert			265.88	265.88	-
B	Resurfacing secondary runway 19R/01L			37.34	37.34	-
C	Reconstruction of B-Taxi & E-Taxi			5.56	5.56	-
D	Extension of apron on south side of NITB			30.00	-	(30.00)
E	Construction of emergency medical unit			1.82	1.82	-
F	Augmentation of power supply - east side of runway			4.01	4.01	-

REGULATORY ASSET BASE AND DEPRECIATION FOR THE THIRD CONTROL PERIOD

Reference	Project / Group	No.	Particulars	Submitted by AAI	Proposed by Authority	Difference
				(1)	(2)	(3) = (2) – (1)
Subtotal of Capital Additions Deferred from the Second Control Period to the Third Control Period	Total			344.61	314.61	(30.00)
	Financing Allowance			23.03	-	(23.03)
	IDC			14.28	13.15	(1.14)
	Total (including FA and IDC)			381.92	327.75	(54.17)
New Capital Additions proposed in the Third Control Period						
G	Runways, taxiways, and aprons	G.1	Construction of remote bays on the eastern side of the main runway	97.42	97.42	-
		G.2	Rehabilitation to K-taxi track, part of secondary runway and A-taxi track	9.26	9.26	-
		G.3	Reconstruction of broken slab of bay no. 3 and 4	5.94	5.94	-
		G.4	Supply and laying HDPE pipes	1.55	-	(1.55)
		G	Sub-total (runways, taxiways, and aprons)	114.17	112.62	(1.55)
H	Roads, bridges, and culverts	H.1	Metro connectivity to new and existing terminal building	95.00	95.00	-
		H.2	Repair and raising of perimeter road	6.47	6.47	-
		H	Sub-total (roads, bridges, and culverts)	101.47	101.47	-
I	Terminal building	I.1	Capacity enhancement at terminal building	116.05	116.05	-
		I.2	Strengthening of NIPTB roofing system	10.59	10.59	-
		I	Sub-total (terminal building)	126.64	126.64	-
J	Construction of standard operation boundary wall in place of old damaged non-standard boundary wall			4.86	4.86	-
K	Other buildings	K.1	Construction of CISF complex on Narayanpur side	77.71	-	(77.71)
		K.2	Relocation of Air India NTA building	51.55	-	(51.55)

REGULATORY ASSET BASE AND DEPRECIATION FOR THE THIRD CONTROL PERIOD

Reference	Project / Group	No.	Particulars	Submitted by AAI	Proposed by Authority	Difference
				(1)	(2)	(3) = (2) – (1)
		K.3	Construction of 3 hangars (Narayanpur side)	25.93	25.93	-
		K.4	Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (civil work)	16.80	16.80	-
		K.5	Construction of multi activity complex	7.42	7.42	-
		K.6	Other buildings	4.18	4.18	-
		K	Sub-total (other buildings)	183.59	54.33	(129.26)
L	Computers and software	L.1	DIGI yatra	34.51	-	(34.51)
		L.2	Others	4.26	4.26	-
		L	Sub-total (computers and software)	38.77	4.26	(34.51)
M	Tools and equipment	M.1	Procurement of 2 runway mechanical sweepers and 1 airport surface friction tester (ASFT)	5.00	5.00	-
		M.2	Others	9.62	6.14	(3.48)*
		M	Sub-total (tools and equipment)	14.62	11.13	(3.48)
N	Electrical installations	N.1	Construction of new CCR hall cum sub-station near main fire station on eastern side of runway (electrical works)	25.20	25.20	-
		N.2	Others	28.24	28.24	-
		N	Sub-total (electrical installations)	53.44	53.44	-
O	Others			11.50	11.40	(0.10)
Subtotal of New Capital Additions proposed in the Third Control Period	Total			649.06	480.16	(168.90)
	Financing Allowance			14.84	-	(14.84)
	IDC			20.35	10.78	(9.57)
	Total (including FA and IDC)			684.34	490.94	(193.40)
Grand Total of Capital Additions Proposed in the Third Control Period						
Grand total of capital additions proposed to be considered in the Third Control Period	Total (I)			993.76	794.77	(198.90)
	Financing Allowance (II)			37.87	-	(37.87)
	IDC (III)			34.63	23.93	(10.71)
	Total (including FA and IDC) (IV = I + II + III)			1,066.26	818.70	(292.49)

*Terminal Building Ratio applied as per Para 5.2.78

Aeronautical Allocation of Assets for the Third Control Period

5.2.76. The following table summarises the allocation ratios considered by AAI in its MYTP submission:

Table 73: Allocation ratios for the Third Control Period submitted by AAI

Allocation to Aero (%)	%
Terminal Building Ratio	94.35
Employee Headcount Ratio	98.27

5.2.77. The Authority notes that AAI used and computed the following allocation ratios to divide common capital additions into aeronautical and non-aeronautical components:

Table 74: Description of allocation ratios as submitted by AAI

Allocation Ratios	Description
Terminal Building Ratio	The terminal building ratio has been computed based on the identified aeronautical and non-aeronautical parts of the airport.
Employee Headcount Ratio	Employees have been categorised into aeronautical, non-aeronautical and common services. The employees pertaining to common services have been allocated to aeronautical and non-aeronautical categories based on the ratio between aeronautical and non-aeronautical employees from all departments.

5.2.78. The Authority notes that the non-aeronautical component of the terminal building ratio is in the range of 5-8%. As mentioned earlier, this is in contrast to the 8-12% that the IATA and IMG norms recommend. Therefore, the Authority proposes to consider a TBLR of 90:10 for the Third Control Period. The Authority also expects that this allocation ratio be used in non-aeronautical services so that the revenue is higher, thereby increasing the cross-subsidisation in order to reduce the load on airport users. The Authority seeks stakeholder comments in this regard.

Aeronautical Capital Additions for the Third Control Period

5.2.79. Based on the detailed analysis provided above, the Authority proposes to consider aeronautical capital additions in the Third Control Period as follows:

Table 75: Aeronautical capital additions proposed to be considered by the Authority for the Third Control Period

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
Runways,Taxiway & Aprons	37.82	21.24	277.55	97.42	-	434.04
Road, Bridges & Culverts	-	6.71	-	102.16	-	108.87
Building- Terminal	10.29	-	-	-	117.10	127.39
Building - Residential	39.57	-	17.38	-	-	56.95
Boundary Wall -Operational	-	5.05	-	-	-	5.05
Computers: End Users	1.48	-	-	-	-	1.48
Intangible Assets- Software	2.77	-	-	-	-	2.77
Tools & Equipments	4.12	5.00	-	1.78	0.24	11.14
Electrical Installations	31.55	-	28.06	-	-	59.61
Furitures & Fixtures-Other than Trolley	-	-	-	3.20	-	3.20
Furitures & Fixtures- Trolley	-	-	-	-	2.32	2.32

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
X Ray Baggage System	-	-	4.90	-	-	4.90
CFT/Fire Fighting Equipments	0.98	-	-	-	-	0.98
Total (Additions/WIP Capitalisation)	128.58	38.00	327.89	204.56	119.66	818.70

Depreciation for the Third Control Period

5.2.80. The Authority notes that AAI has considered depreciation rates as mentioned in Order No. 35/2017-18. The following table summarizes the revised depreciation working after incorporating the changes in the capital additions proposed by the Authority in the Third Control Period:

Table 76: Depreciation proposed to be considered by the Authority for Third Control Period

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
Runways, Taxiways, Aprons	12.76	13.52	18.50	24.74	25.94	95.46
Roads, Bridges & culvert	10.68	10.91	11.20	16.31	21.42	70.51
Terminal/Other Buildings	59.33	59.44	59.44	59.43	61.38	299.01
Building - Residential	1.34	2.00	2.27	2.44	2.40	10.44
Boundary Wall	1.38	1.51	1.71	1.59	1.58	7.77
Computer, IT Hardware & Access.	4.13	3.72	3.06	2.16	1.26	14.32
Computer Software	1.44	1.69	1.66	1.35	1.05	7.18
Tools and Equipment	7.43	7.73	7.79	7.72	7.78	38.44
Vehicles	0.37	0.35	0.25	0.22	0.14	1.32
Solar Plant	3.61	3.61	3.61	3.61	3.61	18.06
Electrical Installations	61.62	61.57	16.65	15.08	14.26	169.18
Office Equipment	1.52	1.51	1.46	0.73	0.01	5.23
Furniture & Fixtures	11.06	10.45	10.41	10.51	10.78	53.20
X-Ray Baggage	9.17	9.11	9.27	9.44	9.44	46.43
CFT	2.87	2.90	2.89	2.89	2.89	14.45
Total	188.70	190.01	150.17	158.19	163.93	851.01

RAB for the Third Control Period

5.2.81. Considering the above, the RAB for the Third Control Period as considered by the Authority is shown below:

Table 77: RAB proposed to be considered by the Authority for Third Control Period

FY ending March 31 (Rs. Cr.)	Reference	2022	2023	2024	2025	2026	Total
Opening RAB [1]	-	2,109.46	2,049.34	1,897.34	2,075.06	2,121.42	-
Additions to RAB [2]	Table 75	128.58	38.00	327.89	204.56	119.66	818.70
Deletions [3]	-	-	-	-	-	-	-
Depreciation [4]	Table 76	188.70	190.01	150.17	158.19	163.93	851.01
Closing RAB [5] = [1 + 2 - 3 - 4]		2,049.34	1,897.34	2,075.06	2,121.42	2,077.15	-
Average RAB [6] = [(1 + 5)/2]		2,079.40	1,973.34	1,986.20	2,098.24	2,099.29	-

5.3. Authority's Proposals regarding RAB and Depreciation for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to RAB and depreciation for the Third Control Period

- 5.3.1. To reduce (adjustment) 1% of the project cost from the ARR in case any particular capital project is not completed/capitalised as per the approved capitalisation schedule. 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.
- 5.3.2. To consider a terminal building ratio of 90:10 as per the IMG and IATA recommendations for capital additions pertaining to the Third Control Period.
- 5.3.3. To not allow financing allowance for capital additions in the Third Control Period as per Para 5.2.73.
- 5.3.4. To consider capital additions for works deferred from the Second Control Period to the Third Control Period as per Table 68.
- 5.3.5. To consider capitalisation of capacity enhancement at terminal building in the Fourth Control Period based on the forecasted timeline of completion and expected delay considering the current status of work.
- 5.3.6. To consider capital additions for new capital works in the Third Control Period as per Table 71.
- 5.3.7. To true-up the total aeronautical asset addition given in Table 72 for the Third Control Period.
- 5.3.8. To true up the asset allocation of the assets capitalised in the Third Control Period based on the actual asset addition in the Fourth Control Period.
- 5.3.9. To consider aeronautical depreciation in the Third Control Period as per Table 76.
- 5.3.10. To true up the depreciation of the Third Control Period based on the actual asset additions and the actual date of capitalisation during the tariff determination of the Fourth Control Period.
- 5.3.11. To consider the RAB for the Third Control Period as per Table 77.
- 5.3.12. To true up the RAB for the Third Control Period based on actuals, at the time of determination of tariff for the Fourth Control Period.

6. FAIR RATE OF RETURN FOR THE THIRD CONTROL PERIOD

6.1. AAI's submission regarding the FRoR for the Third Control Period

- 6.1.1. AAI has submitted that NSCBIA, Kolkata would require debt to fund the capital expenditures that are planned to take place in the Third Control Period. Additionally, AAI submitted that a debt:equity ratio of 60%:40% was considered for all new capital additions envisaged at NSCBIA, Kolkata in the Third Control Period. Considering this composition of capital additions for the Third Control Period, AAI has submitted the projected debt and equity computation as follows.

Debt and Cost of Debt

- 6.1.2. The cost of debt submitted by AAI for the FRoR calculation of the Third Control Period pertaining to NSCBIA, Kolkata is 6.21% per annum.
- 6.1.3. The outstanding debt and cost of debt as submitted by AAI for the Third Control Period of NSCBIA, Kolkata is summarized in the table below.

Table 78: Debt computation for Third Control Period submitted by AAI

FY Ending 31 March (in Rs. Cr.)	2022	2023	2024	2025	2026
Opening Debt	50.29	134.91	273.34	225.41	298.07
Closing Debt	134.91	273.34	225.41	298.07	325.45
Average Debt	92.60	204.13	249.38	261.74	311.76
Cost of Debt (%)	6.21	6.21	6.21	6.21	6.21

*Closing debt for FY21 as submitted by AAI is zero

Equity and Cost of Equity

- 6.1.4. The cost of equity as submitted by AAI for the Third Control Period is 16.00% per annum.
- 6.1.5. The equity projections of NSCBIA, Kolkata for the Third Control Period as submitted by AAI is summarized in the table below:

Table 79: Equity computation for Third Control Period submitted by AAI

FY Ending 31 March (in Rs Cr.)	2022	2023	2024	2025	2026
Equity	1,971.10	1,926.96	1,811.56	1,777.78	1,691.48
Cost of Equity (%)	16.00	16.00	16.00	16.00	16.00

Fair Rate of Return

- 6.1.6. Based on the financials pertaining to NSCBIA, Kolkata as discussed above, AAI has computed the FRoR for the Third Control Period. The same has been summarized in the table below.

Table 80: FRoR for Third Control Period submitted by AAI

FY Ending 31 March (in Rs. Cr.)	2022	2023	2024	2025	2026
Debt [1]	134.91	273.34	225.41	298.07	325.45
Equity [2]	1,971.10	1,926.96	1,811.56	1,777.78	1,691.48
% of Debt [3] = [1]/[1+2]	6.41%	12.42%	11.07%	14.36%	16.14%
% of Equity [4] = [2]/[1+2]	93.59%	87.58%	88.93%	85.64%	83.86%

FY Ending 31 March (in Rs. Cr.)	2022	2023	2024	2025	2026
Cost of Debt [5] (%)	6.21	6.21	6.21	6.21	6.21
Cost of Equity [6] (%)	16	16	16	16	16
FRoR [(3*5) + (4*6)] (%)	15.37%	14.78%	14.92%	14.59%	14.42%

- 6.1.7. AAI further submitted that the since the FRoR computed for the Third Control Period is higher than 15% for all the years, the ARR computation is based on an FRoR of 14% - consistent with that in the Second Control Period.

6.2. Authority's examinations regarding Fair Rate of Return for the Third Control Period

Debt and Cost of Debt

- 6.2.1. The Authority has taken note of the cost of debt and the debt projections for the Third Control Period as submitted by AAI. In order to verify the debt taken by NSBIA, Kolkata for the Third Control Period and the cost of debt regarding the same, the Authority had sought details from AAI. In its email vide 16.11.2021 ("Details regarding debt for Kolkata Airport"), AAI responded stating that it availed a term loan facility of Rs. 2,098 Cr. from M/s. Axis Bank. AAI further explained that the interest rate on this loan is at 6.21% per annum and that the borrowings of NSCBIA, Kolkata have been allocated from the borrowings for AAI as a whole.
- 6.2.2. The Authority notes that the funding of capital additions in the Third Control Period is done using 60% debt and 40% internal accruals. Considering that the same funding pattern was followed in FY 2020-21, the Authority notes that AAI registers an opening debt of Rs. 50.41 Cr. for FY 2021-22. However, the Authority notes that the FRoR working submitted by AAI does not consider all the projects envisaged to be capitalised in the Third Control Period. Further, as stated in the Authority's analyses of RAB for the Second and Third Control Period, AAI has re-submitted newer capital additions following the submission of the MYTP. Considering the above changes and the three-year moratorium to the repayment structure, the Authority recalculates the debt computation for NSCBIA, Kolkata.
- 6.2.3. The Authority has recalculated the debt computation considering the total fund requirement of NSCBIA, Kolkata as per the capitalisation for the Third Control Period proposed by the Authority. The debt computation is summarized as follows

Table 81: Debt computation proposed to be considered for Third Control Period by the Authority

FY Ending 31 March	2022	2023	2024	2025	2026
Opening Debt [1]	69.58	146.73	169.53	313.94	366.82
Drawdown [2]	77.15	22.80	196.74	122.74	71.80
Repayment [3]	-	-	(52.32)	(69.86)	(80.11)
Closing Debt [4] = [1] + [2] - [3]	146.73	169.53	313.94	366.82	358.50
Average Debt [5] = ([1] + [4])/2	108.16	158.13	241.74	340.38	362.66
Cost of Debt (%)	6.21	6.21	6.21	6.21	6.21

Equity and Cost of Equity

- 6.2.4. The Authority has analysed the cost of equity pertaining to NSCBIA, Kolkata as submitted by AAI for the Third Control Period. The Authority acknowledges the debt taken by AAI for NSCBIA, Kolkata in the Third Control Period and its impact on a change in the debt-equity ratio. However,

the Authority is of the opinion that the gearing ratio is still suboptimal and does not justify a cost of equity of 16.00% per annum as submitted by AAI. The Authority has drawn reference to the independent studies conducted in the tariff determination exercise for DIAL (Refer to Order No. 57/2020-21) and MIAL (Refer to Order No.64/2020-21). The independent study considers an optimal debt-equity ratio of 48%:52% and determines a cost of equity in the range of 15.00% to 15.50%. Given that the debt-equity ratio for NSCBIA, Kolkata ranges between 11%:89% and 5%:95% in the Third Control Period, the Authority proposes to maintain a cost of equity of 14.00% across the Third Control Period.

- 6.2.5. Considering the changes in the capitalisation plan for the Third Control Period and the cost of equity, the Authority has recalculated the equity computation of NSCBIA, Kolkata. The same has been summarized in the table below.

Table 82: Equity computation proposed to be considered for Third Control Period by the Authority

FY Ending 31 March (in Rs. Cr.)	2022	2023	2024	2025	2026
Equity	2,901.09	2,916.29	3,099.77	3,251.45	3,379.43
Cost of Equity (%)	14%	14%	14%	14%	14%

Fair Rate of Return

- 6.2.6. The FRoR as recalculated by the Authority after considering the points discussed above is summarized in the table below.

Table 83: FRoR proposed to be considered for Third Control Period by the Authority

FY ending March 31 (in Rs. Cr.)	2022	2023	2024	2025	2026
Debt [A]	146.73	169.53	313.94	366.82	358.50
Equity [B]	2,901.09	2,916.29	3,099.77	3,251.45	3,379.43
Debt + Equity [C = A + B]	3,047.82	3,085.82	3,413.71	3,618.27	3,737.94
Cost of Debt [D]	6.21%	6.21%	6.21%	6.21%	6.21%
Cost of Equity [E]	14.00%	14.00%	14.00%	14.00%	14.00%
Individual Year Gearing	4.81%	5.49%	9.20%	10.14%	9.59%
Weighted Average Gearing	7.91%				
Weighted Average Cost of Debt	0.49%				
Weighted Average Cost of Equity	12.89%				
FRoR	13.38%				

- 6.2.7. The Authority is of the view that the above gearing ratio is sub-optimal and not in the interests of airport users. The Authority encourages AAI to increase the debt composition in their capital structure at NSCBIA, Kolkata. Further, the Authority proposes to consider a notional gearing ratio of 48%:52% from the Fourth Control Period if the gearing ratio continues to remain sub-optimal. The Authority seeks stakeholders' views regarding this matter.

6.3. Authority's Proposals regarding Fair Rate of Return 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

- 6.3.1. To consider the cost of equity at 14.00% as per Table 82.
- 6.3.2. To consider the cost of debt at 6.21% as per Table 81.

- 6.3.3. To consider an FRoR of 13.38% for the Third Control Period as calculated in Para 6.2.6 (Table 83).
- 6.3.4. To true up the FRoR during the tariff determination exercise for the Fourth Control Period.

7. RETURN ON LAND FOR THE THIRD CONTROL PERIOD

7.1. AAI's submissions regarding Return on Land for the Third Control Period

- 7.1.1. As per the tariff order for the Second Control Period, the Authority proposed to exclude the existing cost of land and additions from RAB until a final decision on return on land is taken by the Authority.
- 7.1.2. AAI has computed the return on land based on the relevant decision taken by the Authority in Order No. 42/2018-19 dated 05.03.2019 where the Authority states that:

- “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. The equated annual instalment is to be calculated as per the following formula:

$$\text{Equated Annual Instalment} = \frac{[\text{Cost} \times \text{Rate} (1 + \text{Rate})^{30}]}{(1 + \text{Rate})^{30} - 1}$$

Where,

Cost: Actual cost of land

Rate: Actual cost of debt or SBI base rate plus 2% whichever is lower.”

- 7.1.3. AAI has accordingly submitted the following return on land that has been computed for land purchased from private parties (excluding freehold land) as part of their submission:

Table 84: Return on land for Third Control Period submitted by AAI

FY ending March 31	2022	2023	2024	2025	2026	Total
Cost of land (Rs. Cr.) [1]	1.58	1.58	1.58	1.58	1.58	7.90
Cost of debt (in %) [2]	6.21	6.21	6.21	6.21	6.21	-
Return on land (Rs. Cr.) [3] = [1*2]	0.10	0.10	0.10	0.10	0.10	0.52

7.2. Authority's examination regarding Return on Land for the Third Control Period

- 7.2.1. The Authority notes that AAI has submitted Rs. 0.52 Cr. for return on land for the Third Control Period. The Authority sought additional information from AAI regarding this land. AAI has not provided the required information along with relevant documentation to substantiate any purchase of land. Thus, the Authority is of the opinion that return on land may not be provided to NSCBIA, Kolkata for the Third Control Period.

7.3. Authority's Proposal regarding Return on Land for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to return on land for the Third Control Period

- 7.3.1. To not allow return on land for the Third Control Period as per Para 7.2.1.

8. OPERATING & MAINTENANCE EXPENSES FOR THIRD CONTROL PERIOD

8.1. AAI's Submissions regarding O&M Expenses for the Third Control Period

- 8.1.1. Operation and Maintenance (O&M) expenditure submitted by AAI is segregated into the following:
- Payroll expenses;
 - Administrative and general expenditure;
 - Repair and maintenance expenditure;
 - Utilities and outsourcing expenditure; and
 - Other outflows
- 8.1.2. AAI further submitted that it has segregated all O&M expenses into aeronautical expenses, non-aeronautical expenses, and common expenses. Aeronautical allocation ratios were used to further segregate common expenses into aeronautical and non-aeronautical expenses.
- 8.1.3. AAI has also submitted that expenses related to CHQ apportionment under payroll expenses and admin and general expenses, were done on the basis of revenue of AAI airports. Further, AAI also submitted that 95% of the CHQ overheads were considered to be aeronautical, the rest 5% being non-aeronautical.
- 8.1.4. In order to make the categorisation of O&M expenses consistent with the Second Control Period Order, the Authority has reclassified the same as detailed in Para 3.7.1. The following table summarises the growth rates in O&M expenses submitted by AAI in the Third Control Period:

Table 85: Growth in O&M Expenses for the Third Control Period submitted by AAI

FY ending March 31 (Rs Cr.)	2022	2023	2024	2025	2026
Payroll expenses – non CHQ	7.00%	7.00%	7.00%	7.00%	7.00%
Payroll expenses – CHQ	7.00%	7.00%	7.00%	7.00%	7.00%
Administration and general expenses – non CHQ	12.55%	11.33%	11.27%	11.11%	10.56%
Administration and general expenses – CHQ	5.00%	5.00%	5.00%	5.00%	5.00%
Repairs and maintenance	10.21%	18.31%	9.41%	9.47%	12.80%
Utilities and outsourcing expenses	5.67%	5.78%	5.89%	6.00%	6.11%
Other outflows	10.00%	10.00%	10.00%	10.00%	10.00%
Total	7.25%	8.62%	7.17%	7.21%	7.87%

- 8.1.5. The following table summarises the O&M expenses submitted by AAI in the Third Control Period:

Table 86: O&M Expenses submitted by AAI for the Third Control Period submitted by AAI

FY ending March 31 (Rs Cr.)	2022	2023	2024	2025	2026	Total
Payroll expenses – CHQ	34.17	36.56	39.12	41.86	44.79	196.50
Payroll expenses – non CHQ	183.38	196.22	209.96	224.65	240.38	1,054.60
Administration and general expenses – CHQ	102.70	107.83	113.22	118.88	124.83	567.46
Administration and general expenses – non CHQ	34.06	37.92	42.20	46.89	51.84	212.92
Repairs and maintenance	92.65	109.61	119.93	131.29	148.09	601.56

FY ending March 31 (Rs Cr.)	2022	2023	2024	2025	2026	Total
Utilities and outsourcing expenses	72.07	76.24	80.73	85.57	90.80	405.41
Other outflows	2.67	2.94	3.23	3.55	3.91	16.30
Total	521.71	567.32	608.38	652.69	704.63	3,054.74

8.1.6. The following table summarises the allocation of expenses between aeronautical and non-aeronautical in O&M expenses as submitted by AAI in the Third Control Period:

Table 87: Allocation of expenses as submitted for the Third Control Period as submitted by AAI

FY ending March 31 (Rs Cr.)	Aero %	Non-aero %
Payroll expenses – non CHQ	98.32%	1.68%
Payroll expenses – CHQ	98.26%	1.74%
Administration and general expenses – non CHQ	99.77%	0.23%
Administration and general expenses –CHQ	95.00%	5.00%
Repairs and maintenance	98.11%	1.89%
Utilities and outsourcing expenses	97.62%	2.38%
Other outflows	98.23%	1.77%
Total	98.63%	1.37%

8.2. Authority's examination of O&M expenses in the Third Control Period:

8.2.1. The Authority observes that AAI has allocated payroll expenses apportioned for CHQ based on the employee ratio at NSCBIA, Kolkata for the true-up of the Second Control Period. The Authority has accordingly proposed to revise the allocation to 95:5 and the projections for the Third Control Period are based on the same. The Authority also observes that the administrative and general expenses apportioned to CHQ are allocated between aeronautical and non-aeronautical components based on a ratio of 95:5. The Authority proposed to revise the same to 90:10 in the true-up of the Second Control Period and proposes projections for the Third Control Period based on the same.

8.2.2. The Authority compared the aeronautical allocation of O&M expenses between aeronautical and non-aeronautical submitted by AAI for NSCBIA, Kolkata to that of other AAI airports. The following table summarises the same:

Table 88: Aeronautical allocation of O&M expenses at other AAI airports

FY ending March 31	Patna	Chennai	Jaipur
Payroll expenses – non CHQ	97%	98.19%	94%
Payroll expenses – CHQ	95%	98.17%	95%
Administration and general expenses – non CHQ	99%	96.30%	88%
Administration and general expenses –CHQ	95%	95.00%	90%
Repairs and maintenance	95%	95.68%	93%
Utilities and outsourcing expenses	90%	90.00%	93%
Other outflows	100%	95.26%	100%

8.2.3. The Authority notes that AAI has projected O&M expenses at NSCBIA, Kolkata by applying a growth rate over the expenses of FY 2020-21, which itself is an estimated expense. Since the Authority proposed to consider O&M expenses of FY 2020-21 by applying a 0% growth rate over FY 2019-20 in the Second Control Period, the Authority proposes to consider the revised FY 2020-

21 expenses as the base year. It may be noted that the actual figures for FY 2020-21 will be updated in the tariff order for NSCBIA, Kolkata.

- 8.2.4. The Authority proposes the following allocation of O&M expenses into aeronautical and non-aeronautical based on a terminal building ratio of 90:10:

Table 89: Allocation of O&M expenses for the Third Control Period as proposed to be considered by the Authority

FY ending March 31 (Rs Cr.)	Aero %	Non-aero %
Payroll expenses – non CHQ	98.32%	1.68%
Payroll expenses – CHQ	95.00%	5.00%
Administration and general expenses – non CHQ	99.77%	0.23%
Administration and general expenses –CHQ	90.00%	10.00%
Repairs and maintenance	96.89%	3.11%
Utilities and outsourcing expenses	90.0%	10.0%
Other outflows*	96.75%	3.25%
Total	96.06%	3.94%

- 8.2.5. The Authority notes that the growth rate of 7% for payroll expenses submitted by AAI is higher than how they are expected to grow during the Third Control Period. The Authority finds it reasonable to revise the annual growth rate to 6% p.a. on payroll costs.
- 8.2.6. The Authority noted that AAI has submitted utilities and outsourcing expenses after deducting the recoveries made from concessionaires. The Authority also notes that 99.99% of the power charges under utilities and outsourcing expenses has been allocated as aeronautical and that upkeep expenses have been allocated to aeronautical on the basis of the terminal building ratio. Based on further examination, the Authority notes that the recoveries from concessionaires is between 14% - 23% of the total power charges for the Second Control Period at NSCBIA, Kolkata. The Authority proposes to allocate upkeep expenses into aeronautical on the basis of a terminal building ratio of 90% in line with the IATA and IMG recommendations that the non-aeronautical component should be in the range of 8-12%.
- 8.2.7. The Authority notes that the recovery of power charges is 14% - 23% of the total power charges in the Second Control Period. While power recovery has been increasing over the Second Control Period, the Authority is of the opinion that the power recovery percentage is significantly lower than that for comparable airports. The Authority proposes to consider power recoveries at a notional rate of 25% in the tariff determination of the Fourth Control Period. The Authority invites stakeholder comments on the same and proposes to analyse this further in the Third Control Period Order.
- 8.2.8. In line with the efficiency study, the Authority proposes to use a growth rate of 4.9% (benchmarked to inflation as proposed by the Authority for the Third Control Period) for R&M expenses and to true-up the same based on the actual R&M expenses incurred during the tariff determination exercise of the true-up of the Fourth Control Period.
- 8.2.9. The Authority further notes that AAI has separately submitted R&M expenses for various capital additions pertaining to network monitoring systems, CTX – Screeners, DARK, etc. based on annual maintenance contracts from suppliers. The Authority, in line with its proposal to defer the capitalisation of Digi Yatra to the Fourth Control Period, proposes to not consider the AMC expenses pertaining to the said capital work under R&M expenses in the Third Control Period. Since, these

new works are essential for security and/or operational efficiency of the airport, the Authority proposes to consider them as O&M expenses for the Third Control Period.

8.2.10. The Authority proposes to consider a 5% per annum growth rate for administrative and general expenses – CHQ over that proposed to be considered in the Second Control Period. However, for tariff determination in the future, the Authority proposes the following:

- i. AAI is allocating CHQ expenses to airports in the proportion of revenue earned by them. The Authority notes that AAI manages around 100 non-major airports and that their tariff determination is not conducted on a regular basis and that the revenues at these airports do not cover their expenditures. The Authority further notes that a major portion of the CHQ expenses at these airports are allocated to major airports.
- ii. The Authority observes that AAI is not leveraging non-aeronautical revenue sources to its maximum capacity. Due to the same, non-aeronautical revenues remain low at AAI airports. AAI is advised to increase their non-aeronautical revenues so that 30% of the same could be used to effectively cross-subsidize aeronautical expenses.
- iii. Allocation of CHQ expenses on the basis of revenue is neither transparent nor efficient, as it brings large variation in such expenses on a year-on-year basis due to change in revenue. The Authority also notes that this is against the basic principle of cost relatedness in tariff determination. Users of the major airports have to pay higher tariff due to higher allocation of CHQ expenses to these airports. Further, as the revenue from these airports increase due to higher tariffs, it leads to higher allocation of CHQ expenses perpetually.
- iv. The Authority, therefore, expects AAI to examine these issues in detail and devise a robust methodology to allocate CHQ expenses.

8.2.11. AAI has proposed to charge off the interest on loans availed by AAI under administrative and general expenses – non CHQ. The Authority notes that charges pertaining to financing of any loan other than working capital loan is provisioned to the airport operator under the fair rate of return provided on the regulatory asset base. Therefore, the Authority proposes not to consider these financing charges as O&M expenses.

8.2.12. For collection charges on UDF under other outflows, AAI considered the growth rate to be the same as that of passenger traffic. The Authority proposes to use the same fundamental approach, as it finds the same to be a reasonable driver.

8.2.13. After incorporating the above observations by the Authority, the revised O&M expenses have been summarised below:

Table 90: O&M expenses for the Third Control Period as proposed to be considered by the Authority

FY ending March 31 (Rs Cr.)	2022	2023	2024	2025	2026	Total
Payroll expenses – non CHQ	169.79	179.98	190.77	202.22	214.35	957.11
Payroll expenses – CHQ	30.58	32.42	34.36	36.42	38.61	172.40
Payroll Expenses (A)	200.37	212.39	225.14	238.64	252.96	1,129.51
Administration and general expenses – non CHQ	31.14	35.38	38.84	42.68	47.18	195.23
Administration and general expenses – CHQ	68.54	71.97	75.56	79.34	83.31	378.72
Admin and General Expenses (B)	99.68	107.35	114.40	122.03	130.49	573.95
Repairs and maintenance (C)	79.56	88.09	92.46	97.09	106.27	463.48
Utilities and outsourcing expenses (D)	67.05	70.80	74.84	79.19	83.88	375.76

FY ending March 31 (Rs Cr.)	2022	2023	2024	2025	2026	Total
Other outflows (E)	2.39	2.63	2.89	3.18	3.50	14.59
Total [A to E]	449.06	481.27	509.74	540.13	577.10	2,557.29

- 8.2.14. Based on the above O&M expenses, the Authority proposes to consider the following revised growth rates in O&M expenses:

Table 91: Growth rates of O&M expenses for the Third Control Period proposed to be considered by the Authority

FY ending March 31 (Rs Cr.)	2022	2023	2024	2025	2026
Payroll expenses – non CHQ	6.0%	6.0%	6.0%	6.0%	6.0%
Payroll expenses – CHQ	6.0%	6.0%	6.0%	6.0%	6.0%
Administration and general expenses – non CHQ	12.9%	13.6%	9.8%	9.9%	10.5%
Administration and general expenses – CHQ	5.0%	5.0%	5.0%	5.0%	5.0%
Repairs and maintenance	5.3%	10.7%	5.0%	5.0%	9.5%
Utilities and outsourcing expenses	5.4%	5.6%	5.7%	5.8%	5.9%
Other outflows	10.0%	10.0%	10.0%	10.0%	10.0%
Total	6.1%	7.2%	5.9%	6.0%	6.8%

- 8.2.15. The Authority notes a high growth rate in admin and general expenses – non-CHQ in FY 2021-22 and FY 2022-23. This increase is attributable to an increase in UDF collection charges which are linked to passenger traffic projections for the respective years. The Authority has also noted a 14.8% year-on-year increase in FY 2022-23 in repairs and maintenance expenses and understands that the same is due to the incurrence of AMC costs pertaining to various capital works such as DARK, digital signages, biometric access control systems, network monitoring system, CTX inline screening, first bag – last bag etc.

8.3. Authority's Proposal regarding O&M expenses for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to O&M expenses for the Third Control Period

- 8.3.1. To consider asset allocation as set out in Table 89 in the Third Control Period.
- 8.3.2. To consider aeronautical O&M expenditure as detailed in Table 90 for the Third Control Period.
- 8.3.3. To true up the O&M expenses for the Third Control Period based on actuals during the tariff determination of the Fourth Control Period.

9. NON-AERONAUTICAL REVENUE FOR THE THIRD CONTROL PERIOD

9.1. AAI's Submissions regarding Non-Aeronautical Revenue for the Third Control Period

9.1.1. AAI has submitted its forecast of non-aeronautical revenue for the Third Control Period. The non-aeronautical revenue proposed by AAI primarily comes from three sources: (a) Trading Concessions; (b) Rent and Services; (c) Miscellaneous sources. The assumptions regarding the sub-heads of non-aeronautical revenue forecasts are described in the table as follows:

Table 92: Summary of assumptions for non-aeronautical revenue for Third Control Period submitted by AAI

Particular	Sub Head	Assumptions
Trading Concessions	<ol style="list-style-type: none"> 1. Restaurant/Snack Bars 2. T.R Stalls 3. Hoarding and Display 	<p>Growth assumptions for Third Control Period are:</p> <ol style="list-style-type: none"> (a) For FY 2021-22, AAI has submitted revenue estimates based on data provided by the commercial department of NSCBIA, Kolkata. The forecasts expect to recover 23% of the pre-pandemic revenue pertaining to trading concessions. (b) For FY 2022-23 to FY 2025-26, AAI submitted an annual increase of 7.5% p.a.
Rent and Services	<ol style="list-style-type: none"> 1. Land Rent and Leases 2. Land Rent and Leases – Hangars 3. Building – Non-Residential 4. Building – Residential 	<ol style="list-style-type: none"> (a) Land Rent and Leases, and Non-Residential Buildings for the Third Control Period have been estimated based on the estimates of the Land and Commercial Departments at NSCBIA, Kolkata (b) Revenue from residential building is expected to increase at an annual rate of 3% p.a. as per AAI's submissions.
Miscellaneous	<ol style="list-style-type: none"> 1. Duty Free Shops 2. Car Rentals 3. Car Parking 4. Admission Tickets 5. Other Income 	<ol style="list-style-type: none"> (a) Estimates for FY 2021-22 for miscellaneous non-aeronautical sources are expected to achieve 72% of pre-pandemic levels and are based on the data provided by Commercial Department at NSCBIA, Kolkata. (b) For FY 2022-23 to FY 2025-26, AAI forecasts a 7.5% p.a. increase in revenue from duty free shops, car rentals, car parking. (c) For FY 2022-23 onwards, AAI expects a 5% p.a. increase for revenue from admission tickets and other income.

9.1.2. Revenue from Non-Aeronautical services for Third Control Period, as submitted by AAI, is as follows:

Table 93: Non-aeronautical revenue for the Third Control Period submitted by AAI

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
Trading Concessions						
Restaurant / snack bars	5.34	5.74	6.18	6.64	7.14	31.04
T.R. Stall	9.26	9.95	10.70	11.50	12.37	53.78
Hoarding & Display	11.41	12.27	13.19	14.18	15.24	66.29
Rent and Services						
Land Rent and Leases	33.49	36.30	38.90	41.71	45.15	195.55
Land Rent and Leases - hanger	23.70	25.22	26.84	28.51	30.35	134.62
Building Residential	0.05	0.05	0.05	0.05	0.05	0.24
Building Non-Residential	19.15	20.66	22.29	24.05	25.96	112.10
Miscellaneous						
Duty Free Shops	9.17	9.86	10.60	11.39	12.25	53.28
Car Rentals	3.03	3.26	3.51	3.77	4.05	17.62
Car Parking	2.58	2.77	2.98	3.21	3.45	14.99
Admission Tickets	0.53	0.56	0.59	0.62	0.65	2.95
Other Income						
Other Income	26.14	27.45	28.82	30.26	31.78	144.45
Total	143.86	154.09	164.65	175.90	188.42	826.92

9.2. Authority's examinations regarding Non-Aeronautical Revenue for the Third Control Period

- 9.2.1. The Authority has noted that revenues pertaining to rent and services are projected based on the data provided by AAI. The Authority notes that these projections are made after accounting for the relief provided by the airport operator to respective concessionaire/users. This is on account of disruptions caused by the Covid-19 pandemic.
- 9.2.2. The Authority is of the view that the projections of non-aeronautical revenues are primarily dependent on passenger traffic. A large terminal area and new facilities help the airport operator to capture the revenue when the traffic increases. However, the Authority notes that the passenger traffic is expected to be lower than FY 2019-20 for 1-2 years due to the Covid-19 pandemic. Thus, the Authority is of the view that it is reasonable to assume passenger traffic as a primary driver for non-aeronautical revenue for those years.
- 9.2.3. The Authority notes that the non-aeronautical revenue pertaining to rent and services is expected to increase by 72% vis-à-vis its pre-pandemic level. The Authority does not propose any material changes regarding the same.
- 9.2.4. The Authority notes that non-aeronautical revenue streams pertaining to trading concessions and other miscellaneous sources are expected to grow based on a yearly percentage increase. The Authority also notes that AAI's projections pertaining to these revenue sources are only 50% of the pre-pandemic level. Moreover, the Authority is of the opinion that the following revenue sources should be linked to the traffic recovery vis-à-vis the pre-pandemic volumes:
- Restaurant/Snack Bar
 - T.R. Stalls
 - Hoarding and Displays
 - Duty Free shops
 - Car rentals

- Car parking
- Admission tickets

9.2.5. Keeping the above in view and considering the fact that no suitable justification regarding the same was provided by AAI, the Authority proposes to consider the traffic rates proposed by the Authority in Section 4 in order to estimate the non-aeronautical revenues proposed for the Third Control Period.

Table 94: Non-aeronautical revenue proposed to be considered for Third Control Period by the Authority

FY ending March 31 (Rs. Cr.)	2022	2023	2024	2025	2026	Total
Trading Concessions*						
Restaurant / snack bars	9.32	15.18	16.33	17.80	20.56	79.19
T.R. Stall	28.00	45.60	49.07	53.46	61.76	237.89
Hoarding & Display	31.84	51.86	55.80	60.79	70.23	270.52
Rent and Services**						
Land Rent and Leases	33.49	36.30	38.90	41.71	45.15	195.55
Land Rent and Leases - hanger	23.70	25.22	26.84	28.51	30.35	134.62
Building Residential	0.05	0.05	0.05	0.05	0.05	0.24
Building Non-Residential	19.15	20.66	22.29	24.05	25.96	112.10
Miscellaneous*						
Duty Free Shops	26.91	26.91	43.82	47.15	51.37	196.16
Car Rentals	9.05	9.05	14.75	15.87	17.29	66.00
Car Parking	8.98	8.98	14.62	15.73	17.14	65.43
Admission Tickets	0.86	0.86	1.39	1.50	1.63	6.24
Other Income						
Other Income	26.14	27.45	28.82	30.26	31.78	144.45
Total	217.48	268.10	312.69	336.89	373.25	1,508.41

*based on passenger traffic growth

** based on rent agreements

9.3. Authority's Proposals regarding Non-Aeronautical Revenue for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to non-aeronautical revenue for the Third Control Period

- 9.3.1. To consider the non-aeronautical revenues as per Para 9.2.5 (Table 94) for the Third Control Period.
- 9.3.2. To true up non-aeronautical revenues for the Third Control Period at the time of determination of tariff of the Fourth Control Period.

10. TAXATION FOR THE THIRD CONTROL PERIOD

10.1. AAI's Submissions regarding Taxation for the Third Control Period

- 10.1.1. AAI has calculated the revenue generated from regulated services, aeronautical operating expenses, interest and financing charges, and depreciation on written down value (WDV) of assets as per income tax. After calculating the Profit Before Tax (PBT), a tax rate of 25.17% was applied, after setting off prior losses. The aeronautical taxes as submitted by AAI to be considered for tariff calculation are as shown in the table below:

Table 95: Aeronautical taxes submitted by AAI for Third Control Period

FY ending March 31 (Rs Cr.)	2021-22	2022-23	2023-24	2024-25	2025-26	Total
Aeronautical Revenue [1]	829.01	1377.53	2096.26	3185.06	4660.06	12,147.92
Operational Expenses [2]	521.71	567.32	608.38	652.69	704.63	3,054.74
Total Interest and Finance charges [3]	6.56	14.70	19.10	20.27	21.90	82.54
Dep. as per Income Tax Act [4]	177.87	191.15	187.56	182.38	183.83	922.78
Total expenses. [5] = [2 + 3 + 4]	706.13	773.17	815.04	855.35	910.36	4,060.06
PBT [6] = [1 – 5]	122.88	604.35	1,281.22	2,329.72	3,749.69	8,087.86
Set-off of prior period tax losses [7]	(122.88)	(112.15)	-	-	-	(235.03)
PBT after set-off of prior period tax losses [8]	-	492.20	1,281.22	2,329.72	3,749.69	7,852.83
Tax (25.17%) [9] = 25.17%*[8]	-	123.89	322.48	586.39	943.80	1,976.56

10.2. Authority's examinations regarding Aeronautical Tax for the Third Control Period

- 10.2.1. The Authority notes that AAI has calculated income tax based on the aeronautical revenues projected. The Authority has re-computed the taxes based on the revised regulatory building blocks for the Third Control Period proposed in the previous sections. The following table summarizes the aeronautical taxes proposed by the Authority for the Third Control Period:

Table 96: Aeronautical taxes proposed to be considered by the Authority for Third Control Period

FY ending March 31 (Rs Cr.)	2022	2023	2024	2025	2026	Total
Aeronautical Revenue [1]	753.91	1303.42	1473.96	1636.84	1886.08	7,054.21
Operational Expenses [2]	449.06	481.27	509.74	540.13	577.10	2,557.29
Total Interest and Finance charges [3]	6.56	14.70	19.10	20.27	21.82	82.45
Dep. As WDV as per income tax [4]	164.15	151.66	157.60	173.26	169.93	816.61
Total expense.[5] = [2 + 3 + 4]	619.77	647.62	686.44	733.67	768.85	3,456.36
PBT [6] = [1 – 5]	134.14	655.79	787.52	903.18	1,117.23	3,597.86
Set-off of prior period tax losses [7]	(153.56)	-	-	-	-	(153.56)
PBT after set-off of prior period tax losses [8]	-19.42	655.79	787.52	903.18	1,117.23	3,444.29
Tax (25.17%) [9] = 25.17%*[8]	0.00	165.06	198.22	227.33	281.21	871.82

10.3. Authority's Proposals regarding Aeronautical Tax for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to taxation for the Third Control Period

- 10.3.1. To consider aeronautical tax as per Para 10.2.1 (Table 96) for the Third Control Period.

- 10.3.2. To true up the aeronautical tax estimates based on actual tax outflow at the end of the Third Control Period.

11. INFLATION FOR THE THIRD CONTROL PERIOD

11.1. AAI's Submission regarding Inflation for the Third Control Period

- 11.1.1. The rate of inflation considered by AAI for NSCBIA, Kolkata is based on the Consumer Price Index as per RBI. AAI has stated that it has considered the CPI forecast for four quarters of FY 2020-21 by RBI and computed an arithmetic mean of the same. The inflation rates submitted by AAI are given in the table below:

Table 97: Inflation submitted by AAI for Third Control Period

Quarter (FY21)	Inflation (in %)
Q1	5.60
Q2	4.90
Q3	3.20
Q4	2.80
Mean	4.13

11.2. Authority's examination regarding Inflation for the Third Control Period

- 11.2.1. The Authority has analysed the submission made by AAI regarding inflation for the Third Control Period. The Authority has noted that inflation figures submitted by AAI for FY 2020-21 (CPI Combined) pertain to forecast by the RBI as per its 64th round of survey of professional forecasters on macroeconomic indicators (released on 04.06.2020).
- 11.2.2. The Authority, however, proposes to consider the recent inflation forecast by the RBI as per its 69th round of survey of professional forecasters on macroeconomic indicators (released on 07.04.2021). It is of the view that the same would be consistent with the recent macroeconomic developments.
- 11.2.3. Based on the recent inflation forecast by the RBI, the Authority proposes to consider inflation of 4.9%, i.e. the mean WPI inflation forecast for FY 2021-22 (WPI Non-food Manufactured Products) given in the table below:

Table 98: WPI (non-food manufactured products) as per RBI's 69th round of survey

Items (%)	FY 2020-21 (Q4)	FY 2021-22 (Q1)	FY 2021-22 (Q2)	FY 2021-22 (Q3)	FY 2021-22 (Q4)	Mean
Inflation	5.5	6.2	5.8	4.3	2.6	4.9

11.3. Authority's Proposal regarding Inflation for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to inflation for the Third Control Period

- 11.3.1. To consider inflation of 4.9% for the Third Control Period based on the mean WPI inflation forecast for FY 2021-22 given in the 69th round of survey of professional forecasters on macroeconomic indicators of RBI, as per Para 11.2.3 (Table 98).

12. QUALITY OF SERVICES FOR THE THIRD CONTROL PERIOD

12.1. AAI's Submissions regarding Quality of Services for the Third Control Period

12.1.1. AAI has not made any submissions related to Quality of Service as part of its MYTP submission made in March 2021.

12.1.2. With respect to Quality of Service the Authority notes the following:

- As per section 13(1) (a)(ii) of the AERA Act, 2008, the Authority shall determine the tariff for aeronautical services taking into consideration - “the service provided, its quality and other relevant factors.”
- 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;”

12.1.3. In the tariff order for NSCBIA, Kolkata for the Second Control Period, the Authority had noted that it expects AAI to maintain ASQ rating above 3.75 in 3rd control period (para 17.13).

12.1.4. The following table summarises the annual ASQ ratings of NSCBIA, Kolkata obtained during the Second Control Period:

Table 99: ASQ Ratings for NSCBIA, Kolkata from 2017-20

Year	ASQ Rating
2017	4.75
2018	4.79
2019	4.71
2020	4.77

12.1.5. The Authority has noted that the ASQ ratings awarded by ACI to NSCBIA, Kolkata during FY 2016-17 to 2019-20 was in the range of 4.71 - 4.79.

12.1.6. Further, the Authority has noted that NSCBIA won the ASQ award by ACI in 2020 for best hygiene measures by region.

12.2. Authority's examination regarding Quality of Services for the Third Control Period

12.2.1. The Authority reviewed the MoU between AAI and MoCA for FY 2019-20 and noted that the ASQ rating target for FY 2019-20 was 4.68. The actual ASQ rating achieved by NSCBIA, Kolkata for FY 2019-20 was 4.77.

12.2.2. Since the ASQ ratings achieved are higher than the target ASQ ratings, the Authority does not propose any adjustment towards tariff determination for the Third Control Period on account of quality of service maintained by NSCBIA, Kolkata.

12.3. Authority's Proposals regarding Quality of Services for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to quality of services for the Third Control Period

- 12.3.1. To not consider any adjustment towards tariff determination for the Third Control Period on account of quality of service.

13. AGGREGATE REVENUE REQUIREMENT FOR THE THIRD CONTROL PERIOD

13.1. AAI's Submissions regarding Aggregate Revenue Requirement for the Third Control Period

13.1.1. AAI has arrived at the following ARR for the Third Control Period based on the submissions made for the regulatory building blocks as per the previous sections:

Table 100: Aggregate Revenue Requirement submitted by AAI for Third Control Period

FY ending March 31 (in Rs Cr.)	Ref	2022	2023	2024	2025	2026	Total
Opening RAB	A	2,150.78	2,160.60	2,254.90	2,141.15	2,346.91	
Closing RAB	B	2,160.60	2,254.90	2,141.15	2,346.91	2,298.35	
Average RAB	$C = \frac{A+B}{2}$	2,155.69	2,207.75	2,198.02	2,244.03	2,322.63	
FRoR (%)	D	14.00%	14.00%	14.00%	14.00%	14.00%	
Return on RAB	$E = C \times D$	301.80	309.09	307.72	314.16	325.17	1,557.94
O&M Expenses	F	521.71	567.32	608.38	652.69	704.63	3,054.74
Depreciation	G	195.74	205.59	165.15	171.60	180.61	918.69
Tax	H	-	123.89	322.48	586.39	943.80	1,976.56
Return on Land	I	0.10	0.10	0.10	0.10	0.10	0.52
Under-recovery of Second Control Period as on 31 March 2022	J	2,910.21					2,910.21
Depreciation on financing allowance for First Control Period	K	13.25	13.24	9.47	7.63	7.63	51.23
Return on financing allowance for Second Control Period	L	15.24	13.90	12.75	11.88	11.11	64.89
Interest on term loan	M	6.56	14.70	19.10	20.27	21.90	82.54
Aggregate Revenue Requirement (including true-up)	$N = E \text{ to } M$	3,964.61	1,247.83	1,445.17	1,764.75	2,194.96	10,617.32
Non-Aeronautical Revenue	O	143.86	154.09	164.65	175.90	188.42	826.92
Less: 30% Non- Aeronautical Revenue	$P = 30\% \times O$	(43.16)	(46.23)	(49.39)	(52.77)	(56.53)	(248.08)
Net ARR	$Q = N + P$	3,921.45	1,201.60	1,395.77	1,711.98	2,138.44	10,369.24
Discount rate	R	14.00%	14.00%	14.00%	14.00%	14.00%	
Discount Factor	S	1.00	0.88	0.77	0.67	0.59	
NPV of Net ARR as on 31 March 2022	$T = S \times Q$	3,921.45	1,054.04	1,074.00	1,155.54	1,266.13	8,471.15
Passengers (in mns)	U	55.94					55.94
Yield Per Passenger (in Rs.)	$V = \frac{T}{U} \times 10$	1,514.22					1,514.22

13.1.2. Accordingly, the yield per passenger as submitted by AAI at the beginning of the Third Control Period is Rs. 1,514.22. Based on the ARR of Rs. 8,471.15 Cr. (in present value terms), AAI has submitted a tariff rate card which is provided in Annexure I.

13.2. Authority's examination regarding Aggregate Revenue Requirement for the Third Control Period

13.2.1. Based on the changes proposed by the Authority for each building block, and after accounting for the under-recovery of Rs. 1,727.60 Cr. in FY 2021-22 as per the true-up calculation for the Second Control Period, the ARR proposed by the Authority for the Third Control Period is given in the table below:

Table 101: Aggregate Revenue Requirement proposed to be considered by the Authority for the Third Control Period

FY ending March 31 (in Rs Cr.)	Ref	2022	2023	2024	2025	2026	Total
Opening RAB (Table 77)	A	2,109.46	2,049.34	1,897.34	2,075.06	2,121.42	
Closing RAB (Table 77)	B	2,049.34	1,897.34	2,075.06	2,121.42	2,077.15	
Average RAB (Table 77)	$C = \frac{A+B}{2}$	2,079.40	1,973.34	1,986.20	2,098.24	2,099.29	
FRoR (%) (Table 83)	D	13.38%	13.38%	13.38%	13.38%	13.38%	
Return on RAB	$E = C \times D$	278.31	264.11	265.83	280.83	280.97	1,370.06
O&M Expenses (Table 90)	F	449.06	481.27	509.74	540.13	577.10	2,557.29
Depreciation (Table 76)	G	188.70	190.01	150.17	158.19	163.93	851.01
Tax (Table 96)	H	-	165.06	198.22	227.33	281.21	871.82
Return on Land (Para 7.3.1)	I	-	-	-	-	-	0.00
Under-recovery of Second Control Period (Table 57) as on 31 March 2022	J	1,727.60					1,727.60
Depreciation on financing allowance for First Control Period	K	-	-	-	-	-	0.00
Return on financing allowance for Second Control Period	L	-	-	-	-	-	0.00
Interest on term loan	M	-	-	-	-	-	0.00
Aggregate Revenue Requirement (including true-up)	$N = E + M$	2,643.67	1,100.45	1,123.96	1,206.49	1,303.21	7,377.78
Non-Aeronautical Revenue (Table 94)	O	217.48	268.10	312.69	336.89	373.25	1,508.41
Less: 30% Non-Aeronautical Revenue	$P = 30\% \times O$	(65.24)	(80.43)	(93.81)	(101.07)	(111.97)	(452.52)
Net ARR	$Q = N + P$	2,578.42	1,020.02	1,030.16	1,105.42	1,191.24	6,925.26
Discount rate	R	13.38%	13.38%	13.38%	13.38%	13.38%	
Discount Factor	S	1.00	0.88	0.78	0.69	0.61	
PV of Net ARR as on 31 March 2022	$T = S \times Q$	2,578.42	899.61	801.31	758.35	720.76	5,758.45
Passengers (in mns) (Table 60)	U	58.01					
Yield Per Passenger (in Rs.)	$V = \frac{T}{U} \times 10$	992.72					

- 13.2.2. The yield per passenger beginning in the Third Control Period computed by the Authority is Rs. 992.72. Further, the Authority estimates the present value of ARR to be Rs. 5,758.45 Cr. as seen in the table above. Based on the ARR, the Authority has proposed tariffs for the Third Control Period in Annexure II.

13.3. Authority's Proposal regarding Aggregate Revenue Requirement for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to ARR for the Third Control Period

- 13.3.1. To consider the ARR as per Table 101 as the eligible ARR for the Third Control Period.
- 13.3.2. To true up all regulatory building blocks based on actuals during the tariff determination exercise of the Fourth Control Period.

14. AERONAUTICAL REVENUE FOR THE THIRD CONTROL PERIOD

14.1. AAI's submission regarding Aeronautical Revenue for the Third Control Period

14.1.1. AAI has proposed to increase the aeronautical tariffs as applicable from 1 October 2021 as per below schedule:

- a. Landing charges: An upward increase of 10% for Domestic landing and International Landing from existing rates w.e.f. 01.10.2021 on 1st April every F.Y up to F.Y 2025-26 is proposed.
- b. Parking charges: An upward increase of Parking charges (Domestic/International) at 20% from existing rates w.e.f. 01.10.2021, an increase of 12% on 01.04.2023 and thereafter an increase of 10% every on 1st April every F.Y up to F.Y 2025-26 is proposed. Housing Charges are proposed to be categorized as parking charges.
- c. UDF: Domestic UDF at Rs. 735 per embarking passenger (increase of 26% from existing rate of Rs. 583) and. International UDF at Rs 1,766 per embarking passenger (increase of 26% from existing rate of Rs 1,401) with effect from 01.10.2021, an increase of 26% on 01.04.2023 and thereafter an increase of 27% on 1st April of every F.Y up to F.Y 2025-26 is proposed.
- d. Aerobridge Charges: An upward increase of aerobridge charges domestic and international at 10% from existing rates w.e.f. 01.10.2021 and thereafter an increase of 10% every on 1st April every F.Y up to F.Y 2025-26 is proposed.

14.1.2. Aviation Security Fee (ASF): Will continue to be charged as rate prescribed by MoCA.

14.1.3. The annual tariff proposal submitted by AAI is given in Annexure I.

14.1.4. As per AAI's submission, aeronautical revenue is as given below:

Table 102: Aeronautical revenue as submitted by AAI

FY Ending 31 March (in Rs. Cr.)	2022	2023	2024	2025	2026	Total
Landing	267.07	387.77	511.86	684.05	896.38	2,747.14
Parking	18.87	28.91	38.17	50.15	62.81	198.91
UDF	446.21	845.90	1,412.36	2,294.27	3,521.12	8,519.85
Land Lease	36.44	38.26	40.18	42.19	44.30	201.36
Ground Handling Charges	19.12	23.98	28.77	34.37	39.13	145.36
Aerobridge charges	14.86	21.53	28.42	37.73	48.57	151.11
Royalty from Cute Charges	9.42	12.45	15.92	19.66	22.84	80.29
Cargo Revenue share from AAICLAS (30%)	17.02	18.72	20.59	22.65	24.92	103.89
Total	829.01	1,377.53	2,096.26	3,185.06	4,660.06	12,147.92

AAI's additional submission on landing charges for aircrafts with maximum capacity of less than 80 seats

- 14.1.5. AAI has submitted vide its letter dated 18th August 2021 (attached in Appendix-1) that the Authority has to compensate AAI in the Third Control Period for the revenue loss in the matter of M/s Spicejet's claim on levy of landing charges by AAI for aircrafts having maximum capacity of less than 80 seats in the First and Second Control Period.

14.2. Authority's examination regarding Aeronautical Revenue for the Third Control Period

- 14.2.1. The Authority notes that air traffic demand has been widely impacted due to challenges posed by the Covid-19 pandemic and the resultant slowdown in the economy. Moreover, airport operators have ongoing capital expenditure projects as also other planned works, thus resulting in a higher ARR. Further, the Authority notes that the existing traffic base is not sufficient for complete recovery of ARR in the Third Control Period and that this would require a significant increase in tariffs.
- 14.2.2. The Authority has taken cognisance of the situation and is of the view that keeping the tariff at the current level for the entire control period and postponing the full recovery of shortfalls to the next control period will create substantial recovery burden and lead to steep tariff increases in the Fourth Control Period. Besides, it would also adversely impact the cash flows of the airport operator in the Third Control Period. The Authority, however, is of the view that targeting a full recovery at this time may not be fair to all stakeholders and may dampen the stakeholders' efforts to revive demand. The Authority notes that the airport operator has the provision of the true up of any shortfalls in revenue recovery in the Fourth Control Period.
- 14.2.3. Based on the above analysis, the Authority proposes not to increase any aeronautical tariff both for domestic and international traffic in the current financial year 2021-22 and proposes to revise the Landing, Parking and Aerobridge charges, and UDF from 01 April 2022.
- 14.2.4. Further, the Authority proposes to carry forward Rs. 444.37 Cr. of the ARR of the Third Control Period to the Fourth Control Period in order to reduce the burden on users during the Third Control Period on account of lower traffic.
- 14.2.5. The Ministry of Civil Aviation has discontinued the levy of fuel throughput charge at all airports with effect from 15th January 2020 vide MoCA letter no. F.No. AV-13030/216/2016-ER (Pt.2) dated 8th January 2020.
- 14.2.6. The Authority proposes to consider ground handling charges and royalty from CUTE charges based on the traffic growth rates proposed in Table 60.
- 14.2.7. Based on the above annual tariff proposal of the Authority for this consultation paper is attached in Annexure II.

Authority's examination of AAI's additional submission on landing charges for aircrafts with maximum capacity of less than 80 seats

- 14.2.8. Ministry of Civil Aviation vide letter dated 09th February 2004 decided to exempt, "aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators and helicopters of all types", from paying landing charges at AAI airports.

14.2.9. AERA while issuing the aeronautical tariff order for NSCBIA, Kolkata for 1st control period (01.04.2011 to 31.03.2016) did not mention this clause in its Order No.35/2012-13 dated 24.01.2013.

14.2.10. M/s Spicejet vide letter dated 19.02.2021 has submitted that AAI had not exempted the landing charges for aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators during the currency of 1st control period order of AERA. M/s SpiceJet stated that AAI has billed Rs.2.80 Cr. on SpiceJet for operating aircraft at Kolkata with a maximum certified capacity of less than 80 seats. Now M/s SpiceJet has requested AAI to accord necessary credit for excess billing during 1st control period.

14.2.11. In this regard, Airports Authority of India vide letter dated 18.08.2021 submitted that it will consider the request of M/s Spicejet and accord credit if AERA allows exemption from landing charge in respect of aircraft with a maximum certified capacity of less than 80 seats in 1st control period and suitably compensate AAI for amount of credit to be accorded. The Authority proposes to compensate AAI the mutually agreeable principal amount (if any) pertaining to the landing charges that were levied on aircrafts operated by SpiceJet with a certified capacity of less than 80 seats.

14.2.12. The Authority has determined the aeronautical revenues with the proposed aeronautical charges as follows (Ref Annexure-II):

Table 103: Aeronautical revenues and shortfall proposed to be considered in the Third Control Period by the Authority

Particulars (in Rs. Cr.)	2022	2023	2024	2025	2026	Total
Total PV of ARR including true-up (A)	5,758.45					5,758.45
Landing charges:						
Domestic	189.96	300.10	321.66	359.01	442.81	1,613.53
International	29.52	98.48	134.34	148.44	168.56	579.33
Subtotal (landing charges) (B)	219.48	398.58	455.99	507.44	611.36	2,192.85
Parking charges:						
Domestic and International	15.60	26.10	28.78	32.08	39.16	141.73
Subtotal (P&H charges) (C)	15.60	26.10	28.78	32.08	39.16	141.73
Other revenues						
Land leases	36.44	38.26	40.18	42.19	44.30	201.36
Revenue from ground handling	17.28	28.25	30.45	33.18	38.31	147.46
CUTE charges (royalty)	9.80	15.96	17.17	18.71	21.61	83.25
Revenue from AAICLAS	17.02	18.72	20.59	22.65	24.92	103.89
Aerobridge Charges (Dom and Int.)	12.44	21.86	24.65	27.45	33.24	119.63
Subtotal (other revenues) (D)	92.97	123.05	133.04	144.17	162.37	655.61
UDF						
Domestic UDF	378.24	597.48	640.51	714.76	820.95	3,151.93
International UDF	47.62	158.21	215.64	238.38	252.24	912.09
Subtotal (UDF) (E)	425.86	755.69	856.14	953.15	1073.19	4,064.02
Total revenue [F = B + C + D + E]	753.91	1,303.42	1,473.96	1,636.84	1,886.08	7,054.21
PV factor (G)	1.00	0.88	0.78	0.69	0.61	
PV of total revenue [H = F*G]	753.91	1,149.56	1,146.52	1,122.92	1,141.17	5,314.09
Total PV of revenue [I = Σ(H)]	5,314.09					5,314.09
(Surplus) / Shortfall [A – H]	444.37					444.37

14.2.13. The Authority proposes to carry-forward the shortfall of Rs. 444.37 Cr. (as per Table 103) to the Fourth Control Period, with a view to not burden the airlines further which are already suffering

with the Covid-19 pandemic's impact, as also the other Users, with excessive tariff at this juncture. However, the Authority proposes to adjust the above shortfall based on the aeronautical revenue achieved by NSCBIA, Kolkata in line with the actual traffic data of the Third Control Period.

14.3. Authority's Proposal Regarding Aeronautical Revenue for the Third Control Period

Based on the materials before it and its analysis, the Authority proposes the following with respect to aeronautical revenue for the Third Control Period

- 14.3.1. The Authority proposes to compensate AAI the mutually agreeable principal amount pertaining to the landing charges that were levied on aircrafts operated by SpiceJet with a certified capacity of less than 80 seats.
- 14.3.2. To consider the aeronautical revenues as provided in Table 103.
- 14.3.3. To true up aeronautical revenue based on actual numbers for the Third Control Period at the time of determination of tariff for the Fourth Control Period.

15. SUMMARY OF AUTHORITY'S PROPOSALS

The section below provides a summary of the Authority's proposals relating to relevant chapters regarding tariff determination for the Third Control Period.

Chapter 3: True up for the Second Control Period

- 3.12.1. To accept the actual traffic volumes of FY 2020-21 for true-up of the Second Control Period – as detailed in Table 6.
- 3.12.2. To consider passenger and ATM traffic as detailed in Table 7 for true-up of the Second Control Period.
- 3.12.3. To consider aeronautical RAB as per Table 19 for true-up of the Second Control Period.
- 3.12.4. To consider aeronautical depreciation as per Table 26 for true-up of the Second Control Period.
- 3.12.5. To consider FRoR as per Table 28 for the true-up of the Second Control Period.
- 3.12.6. To not allow return on cost of land pertaining to First and Second Control Periods.
- 3.12.7. To consider operating expenses as per Table 46 for true-up of the Second Control Period.
- 3.12.8. To consider the non-aeronautical revenue as per submitted by AAI for the true-up of the Second Control Period.
- 3.12.9. To consider aeronautical revenue as per Table 51 for true-up of the Second Control Period.
- 3.12.10. To consider aeronautical tax as per Table 54 for true-up of the Second Control Period.
- 3.12.11. To carry forward the under-recovery amount of Rs. 1,727.60 Cr. as on 31 March 2022 as per Table 57 for true-up of the Second Control Period and consider the same in the tariff determination of the Third Control Period.

Chapter 4: Traffic for the Third Control Period

- 4.3.1. To consider passenger traffic and ATM projections as given in Para 4.2.5 (Table 60) for the determination of tariff for the Third Control Period
- 4.3.2. To true-up the traffic of Third Control Period based on the actuals at the time of tariff determination of the Fourth Control Period.

Chapter 5: Regulatory Asset Base and Depreciation for the Third Control Period

- 5.3.1. To reduce (adjustment) 1% of the project cost from the ARR in case any particular capital project is not completed/capitalised as per the approved capitalisation schedule. 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.

- 5.3.2. To consider a terminal building ratio of 90:10 as per the IMG and IATA recommendations for capital additions pertaining to the Third Control Period.
- 5.3.3. To not allow financing allowance for capital additions in the Third Control Period as per Para 5.2.73.
- 5.3.4. To consider capital additions for works deferred from the Second Control Period to the Third Control Period as per Table 68.
- 5.3.5. To consider capitalisation of capacity enhancement at terminal building in the Fourth Control Period based on the forecasted timeline of completion and expected delay considering the current status of work.
- 5.3.6. To consider capital additions for new capital works in the Third Control Period as per Table 71.
- 5.3.7. To true-up the total aeronautical asset addition given in Table 72 for the Third Control Period.
- 5.3.8. To true up the asset allocation of the assets capitalised in the Third Control Period based on the actual asset addition in the Fourth Control Period.
- 5.3.9. To consider aeronautical depreciation in the Third Control Period as per Table 84.
- 5.3.10. To true up the depreciation of the Third Control Period based on the actual asset additions and the actual date of capitalisation during the tariff determination of the Fourth Control Period.
- 5.3.11. To consider the RAB for the Third Control Period as per Table 77.
- 5.3.12. To true up the RAB for the Third Control Period based on actuals, at the time of determination of tariff for the Fourth Control Period.

Chapter 6: Fair Rate of Return for the Third Control Period

- 6.3.1. To consider the cost of equity at 14.00% as per Table 82.
- 6.3.2. To consider the cost of debt at 6.21% as per Table 81.
- 6.3.3. To consider an FRoR of 13.38% for the Third Control Period as calculated in Para 6.2.6 (Table 83).
- 6.3.4. To true up the FRoR during the tariff determination exercise for the Fourth Control Period.

Chapter 7: Return on Land for the Third Control Period

- 7.3.1. To not allow return on land for the Third Control Period as per Para 7.2.1.

Chapter 8: Operating and Maintenance Expenses for the Third Control Period

- 8.3.1. To consider asset allocation as set out in Table 89 in the Third Control Period.
- 8.3.2. To consider aeronautical O&M expenditure as detailed in Table 90 for the Third Control Period.
- 8.3.3. To true up the O&M expenses for the Third Control Period based on actuals during the tariff determination of the Fourth Control Period.

Chapter 9: Non-Aeronautical Revenue for the Third Control Period

- 9.3.1. To consider the non-aeronautical revenues as per Para 9.2.5 (Table 94) for the Third Control Period.
- 9.3.2. To true up non-aeronautical revenues for the Third Control Period at the time of determination of tariff of the Fourth Control Period.

Chapter 10: Taxation for the Third Control Period

- 10.3.1. To consider aeronautical tax as per Para 10.2.1 (Table 96) for the Third Control Period.
- 10.3.2. To true up the aeronautical tax estimates based on actual tax outflow at the end of the Third Control Period.

Chapter 11: Inflation for the Third Control Period

- 11.3.1. To consider inflation of 4.9% for the Third Control Period based on the mean WPI inflation forecast for FY 2021-22 given in the 69th round of survey of professional forecasters on macroeconomic indicators of RBI, as per Para 11.2.3 (Table 98).

Chapter 12: Quality of Services for the Third Control Period

- 12.3.1. To not consider any adjustment towards tariff determination for the Third Control Period on account of quality of service.

Chapter 13: Aggregate Revenue Requirement for the Third Control Period

- 13.3.1. To consider the ARR as per Table 101 as the eligible ARR for the Third Control Period.
- 13.3.2. To true up all regulatory building blocks based on actuals during the tariff determination exercise of the Fourth Control Period.

Chapter 14: Aeronautical Revenue for the Third Control Period

- 14.3.1. The Authority proposes to compensate AAI the mutually agreeable principal amount pertaining to the landing charges that were levied on aircrafts operated by SpiceJet with a certified capacity of less than 80 seats
- 14.3.2. To consider the aeronautical revenues as provided in Table 103.
- 14.3.3. To true up aeronautical revenue based on actual numbers for the Third Control Period at the time of determination of tariff for the Fourth Control Period.

16. STAKEHOLDER CONSULTATION TIMELINE

- 16.1.1. In accordance with the provisions of Section 13(4) of the AERA Act 2008, the proposal contained in the Summary of Proposals (Chapter 15 above) read with the Authority's analysis, is hereby put forth for Stakeholder Consultation. To assist the stakeholders in making their submissions in a meaningful and constructive manner, necessary documents are enclosed (Annexure – I to VI).
- 16.1.2. For removal of doubts, it is clarified that the contents of this Consultation Paper may not be construed as any Order or Direction of 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 decision fully documented and explained in the Tariff Order 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 proposal made in Chapter 15 above latest by (28/01/2022).

Secretary**Airports Economic Regulatory Authority of India****AERA Building, Administrative Complex, Safdarjung Airport,****New Delhi – 110003****Email: secretary@aera.gov.in, director-ps@aera.gov.in, rajan.gupta1@aera.gov.in****Tel: 011-24695043; Fax: 011-24695039****Chairperson**

17. LIST OF ANNEXURES

17.1. Annexure I: Annual tariff submitted by AAI for the Third Control Period

Existing tariffs and tariff proposal submitted by AAI

- 17.1.1. As part of the MYTP, AAI submitted a tariff card for all five years of the third control period. This tariff card has been reproduced in this annexure. The Authority examined AAI's MYTP, along with all regulatory building blocks. The Authority's examination has been discussed in this consultation paper in the previous chapters.
- 17.1.2. AAI has proposed the implementation date of tariff from 01 October 2021. AAI has proposed to increase the aeronautical tariffs as per the below schedule:
- Landing charges: An upward increase of 10% for Domestic landing and International Landing from existing rates w.e.f. 01.10.2021 on 1st April every F.Y up to F.Y 2025-26 is proposed.
 - Parking charges: An upward increase of Parking charges (Domestic/International) at 20% from existing rates w.e.f. 01.10.2021, an increase of 12% on 01.04.2023 and thereafter an increase of 10% every on 1st April every F.Y up to F.Y 2025-26 is proposed. Housing Charges are proposed to be categorized as parking charges.
 - UDF: Domestic UDF at Rs. 735 per embarking passenger (increase of 26% from existing rate of Rs. 583) and. International UDF at Rs 1,766 per embarking passenger (increase of 26% from existing rate of Rs 1,401) with effect from 01.10.2021, an increase of 26% on 01.04.2023 and thereafter an increase of 27% on 1st April of every F.Y up to F.Y 2025-26 is proposed.
 - Aerobridge Charges: An upward increase of aerobridge charges domestic and international at 10% from existing rates w.e.f. 01.10.2021 and thereafter an increase of 10% every on 1st April every F.Y up to F.Y 2025-26 is proposed.
- 17.1.3. The tariff card proposed for the Second Control Period has been reproduced here. This is based on tariff card proposed by AAI, revised with the changes proposed by the Authority. For the purpose of comparison, the existing aeronautical charges have been provided along with each charge.

Landing Charges

Table 104: Landing charges (domestic) for Third Control Period submitted by AAI

Weight of the Aircraft	Existing Rate Per Landing (in Rs.)	FY 2022 (Q3)	FY 2023	FY 2024	FY 2025	FY 2026
Up to 25 MT	Rs. 416 per MT	Rs. 458 per MT	Rs. 504 per MT	Rs. 554 per MT	Rs. 609 per MT	Rs. 670 per MT
Above 25 MT up to 50 MT	Rs. 10,405 plus Rs. 483.7 per MT in excess of 25 MT	Rs. 11,446 plus Rs. 532 per MT in excess of 25 MT	Rs. 12,590 plus Rs. 585 per MT in excess of 25 MT	Rs. 13,850 plus Rs. 645 per MT in excess of 25 MT	Rs. 15,235 plus Rs. 710 per MT in excess of 25 MT	Rs. 16,755 plus Rs. 780 per MT in excess of 25 MT
Above 50 MT up to 100	Rs. 22,497.5 plus Rs.	Rs. 24,747 plus Rs. 619	Rs. 27,220 plus Rs. 680	Rs. 29,945 plus Rs. 750	Rs. 32,940 plus Rs. 825	Rs. 36,230 plus Rs. 905

Weight of the Aircraft	Existing Rate Per Landing (in Rs.)	FY 2022 (Q3)	FY 2023	FY 2024	FY 2025	FY 2026
	562.4 per MT in excess of 50 MT	per MT in excess of 50 MT	per MT in excess of 50 MT	per MT in excess of 50 MT	per MT in excess of 50 MT	per MT in excess of 50 MT
Above 100 MT to 200 MT	Rs. 50,617.5 plus Rs. 641.2 per MT in excess of 100 MT	Rs. 67,125 plus Rs. 705 per MT in excess of 100 MT	Rs. 73,830 plus Rs. 775 per MT in excess of 100 MT	Rs. 81,220 plus Rs. 850 per MT in excess of 100 MT	Rs. 89,345 plus Rs. 940 per MT in excess of 100 MT	Rs. 98,275 plus Rs. 1,035 per MT in excess of 100 MT
Above 200 MT	Rs. 1,14,737.5 plus Rs. 742.5 per MT in excess of 200 MT	Rs. 1,73,850 plus Rs. 817 per MT in excess of 200 MT	Rs. 1,91,235 plus Rs. 900 per MT in excess of 200 MT	Rs. 2,10,360 plus Rs. 990 per MT in excess of 200 MT	Rs. 2,31,395 plus Rs. 1085 per MT in excess of 200 MT	Rs. 2,54,533 plus Rs. 1,195 per MT in excess of 200 MT

Table 105: Landing charges (international) for Third Control Period submitted by AAI

Weight of the Aircraft	Existing Rate Per Landing (in Rs.)	FY 2022 (Q3)	FY 2023	FY 2024	FY 2025	FY 2026
Up to 25 MT	Rs. 804.2 per MT	Rs. 885 per MT	Rs. 975 per MT	Rs. 1,070 per MT	Rs. 1,175 per MT	Rs. 1,295 per MT
Above 25 MT up to 50 MT	Rs. 20,105 plus Rs. 888.7 per MT in excess of 25 MT	Rs. 22,115 plus Rs. 980 per MT in excess of 25 MT	Rs. 24,325 plus Rs. 1,075 per MT in excess of 25 MT	Rs. 26,760 plus Rs. 1,185 per MT in excess of 25 MT	Rs. 29,435 plus Rs. 1,300 per MT in excess of 25 MT	Rs. 32,380 plus Rs. 1,430 per MT in excess of 25 MT
Above 50 MT up to 100	Rs. 42,322.5 plus Rs. 973.0 per MT in excess of 50 MT	Rs. 46,555 plus Rs. 1,070 per MT in excess of 50 MT	Rs. 51,210 plus Rs. 1,175 per MT in excess of 50 MT	Rs. 56,330 plus Rs. 1,295 per MT in excess of 50 MT	Rs. 61,965 plus Rs. 1,425 per MT in excess of 50 MT	Rs. 68,160 plus Rs. 1,565 per MT in excess of 50 MT
Above 100 MT to 200 MT	Rs. 90,972.5 plus Rs. 1,068.6 per MT in excess of 100 MT	Rs. 1,22,185 plus Rs. 1,175 per MT in excess of 100 MT	Rs. 1,34,405 plus Rs. 1,295 per MT in excess of 100 MT	Rs. 1,47,845 plus Rs. 1,420 per MT in excess of 100 MT	Rs. 1,62,630 plus Rs. 1,565 per MT in excess of 100 MT	Rs. 1,78,890 plus Rs. 1,720 per MT in excess of 100 MT
Above 200 MT	Rs. 1,97,832.5 plus Rs. 1,181.1 per MT in excess of 200 MT	Rs. 3,08,400 plus Rs. 1,300 per MT in excess of 200 MT	Rs. 3,39,240 plus Rs. 1,430 per MT in excess of 200 MT	Rs. 3,73,165 plus Rs. 1,570 per MT in excess of 200 MT	Rs. 4,10,480 plus Rs. 1,730 per MT in excess of 200 MT	Rs. 4,51,530 plus Rs. 1,900 per MT in excess of 200 MT

- i. No landing charges shall be payable in respect of a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operators at airport and b) helicopters of all types c) DGCA approved flying school/flying training institute aircrafts.
- ii. All domestic legs of international routes flown by Indian Operators will be treated as domestic flights as far as landing charges is concerned, irrespective of flight number assigned to such flights.
- iii. Charges shall be calculated on the basis of nearest MT (i.e. 1000 kg).
- iv. Flight operating under regional connectivity scheme will be completely exempted from Landing charges from the date of the scheme is operationalized by GOI.

Parking Charges:

Table 106: Parking charges up to two hours after first two free hours for Third Control Period submitted by AAI

Weight of the Aircraft	Existing parking charges (in INR)	FY 2022 (Q3)	FY 2023	FY 2024	FY 2025	FY 2026
Up to 100 MT	Rs. 16.7 per MT per hour	Rs. 20.0 per MT per hour	Rs. 22.4 per MT per hour	Rs. 24.7 per MT per hour	Rs. 27.2 per MT per hour	Rs. 29.9 per MT per hour
Above 100 MT	Rs. 1,670 plus Rs. 21.7 per MT per hour in excess of 100 MT	Rs. 2,000 plus Rs. 26.0 per MT in excess of 100 MT	Rs. 2,240 plus Rs. 29.2 per MT in excess of 100 MT	Rs. 2,470 plus Rs. 32.1 per MT in excess of 100 MT	Rs. 2,720 plus Rs. 35.3 per MT in excess of 100 MT	Rs. 2,990 plus Rs. 38.8 per MT in excess of 100 MT

* Housing charges are proposed to be categorised as parking charges

Table 107: Parking charges beyond first four hours for Third Control Period submitted by AAI

Weight of the Aircraft	Existing parking charges (in INR)	FY 2022 (Q3)	FY 2023	FY 2024	FY 2025	FY 2026
Up to 100 MT	Rs. 32.7 per MT per hour	Rs. 40.0 per MT per hour	Rs. 44.8 per MT per hour	Rs. 49.4 per MT per hour	Rs. 54.4 per MT per hour	Rs. 59.8 per MT per hour
Above 100 MT	Rs. 3,270 plus Rs. 43.8 per MT per hour in excess of 100 MT	Rs. 4,000 plus Rs. 52.0 per MT in excess of 100 MT	Rs. 4,480 plus Rs. 58.4 per MT in excess of 100 MT	Rs. 4,940 plus Rs. 64.2 per MT in excess of 100 MT	Rs. 5,440 plus Rs. 70.6 per MT in excess of 100 MT	Rs. 5,980 plus Rs. 77.6 per MT in excess of 100 MT

- i. No parking charges shall be levied for the first two hours. While calculating free parking period, standard time of 15 minutes shall be added on account of time taken between touch down time and actual parking time on the parking stand. Another standard time of 15 minutes shall be added on account of taxing time of aircraft from parking stand to take off point. These periods shall be applicable for each aircraft irrespective of actual time taken in the movement of aircraft after landing and before take-off.
- ii. For calculating chargeable parking time, part of an hour shall be rounded off to the nearest hour.
- iii. Charges shall be calculated based on nearest MT.

- iv. Charges for each period parking shall be rounded off to nearest rupee.
- v. At the in-contact stands and open stands, after free parking, for the next two hours normal parking charges shall be levied. After this period, the charges shall be double the normal parking charges.
- vi. It is proposed to waive off the night parking charges in principle for all domestic scheduled operators at NSCBIA, Kolkata if the State Government has brought the rate of tax (VAT) on ATF $\leq 5\%$. The above waiver of night parking charges (between 2200 hrs. to 0600 hrs) will be made applicable from the date of implementation of $\leq 5\%$ tax on ATF by the State Govt. In the event of upward revision in the tax rate of ATF by the State Govt., the relief of free night parking charges will also be deemed to be withdrawn.
- vii. Flight operating under Regional Connectivity Scheme will be completely governed by AIC issued on this subject by DGCA.
- viii. For unauthorized overstay of aircraft an additional charge of Rs. 20.00 per hour per MT beyond 24 hours is to be payable.

Fuel Throughput Charges

- 17.1.4. The Ministry of Civil Aviation has discontinued the levy of Fuel Throughput Charges (FTC) from all airports w.e.f. 15th January 2020 vide MoCA letter no. F.No. AV-13030/216/2016-ER (Pt.2) dated 8th January 2020.

Aerobridge Charges:

- 17.1.5. Aerobridge charges are payable for each usage as per the rates given below:

Table 108: Aerobridge charges for Third Control Period submitted by AAI

Aircraft	Existing charges (in Rs.)	FY 2022 (Q3)	FY 2023	FY 2024	FY 2025	FY 2026
Domestic	Rs. 2,315	Rs. 2,545	Rs. 2,800	Rs. 3,080	Rs. 3,390	Rs. 3,730
International	Rs. 4,630	Rs. 5,095	Rs. 5,605	Rs. 6,165	Rs. 6,780	Rs. 7,460

- a) For calculating chargeable aerobridge usage time, any part of an hour shall be rounded off to the next hour.
- b) Charges for each usage shall be rounded off to the nearest Rupee.

User Development Fees

Table 109: User Development Fees for the Third Control Period submitted by AAI

Aircraft	Existing charges (in Rs.)	FY 2022 (Q3)	FY 2023	FY 2024	FY 2025	FY 2026
Domestic	Rs. 583	Rs. 735	Rs. 925	Rs. 1,175	Rs. 1,495	Rs. 1,895
International	Rs. 1,402	Rs. 1,765	Rs. 2,225	Rs. 2,825	Rs. 3,590	Rs. 4,560

Notes:

UDF Collection:

- a) UDF Collection Charges: If payment is made in accordance with period prescribed under credit policy of AAI, then collection charges at Rs. 5.00 per departing passenger shall be paid by AAI. No collection charges shall be paid in case the airline fails to pay the UDF invoice to AAI within the prescribed credit period or in case of part payment. To be eligible to claim this collection charges, the airlines should have no overdue on any account with AAI.
- b) No collection charges are payable to casual operator/non-scheduled operators
- c) For calculating the UDF in foreign currency, the RBI conversion rate as on the last day of the previous month for tickets issued in the 1st fortnight and rate as on 15th of the month for tickets issued in the 2nd fortnight shall be adopted.
- d) Revised UDF charges will be applicable on tickets issued on or after 1 April 2021.
- e) No UDF will be levied for transit passengers.

17.1.6. **Aviation Security Fee (ASF)**: Will continue to be charged as rate prescribed by MoCA.

17.1.7. **Exemption from levy and collection from UDF at the Airports:**

The Ministry of Civil Aviation, Govt. of India vide order no. AV.16011/002/2008-AAI & vide Letter no. AV.13024/659/2015-AS dated 30.11.2011 & 13.06.2019 respectively has directed AAI to exempt the following categories of persons from levy and collection of UDF.

- a) Children (under the age of 2 years),
- b) Holders of Diplomatic Passport,
- c) Airlines crew on duty including sky marshals & airline crew on board for particular flight only (this would not include Dead Head Crew, or ground personnel),
- d) Persons travelling on official duty on aircraft operated by Indian Armed Forces,
- e) Persons traveling on official duty for United Nations Peace Keeping Missions.
- f) Transit/transfer passengers (this exemption may be granted to all the passengers transiting up to 24 hrs. "A passenger is treated in transit only if onward travel journey is within 24 hrs. from arrival into airport and is part of the same ticket, in case 2 separate tickets are issued it would not be treated as transit passenger").
- g) Passengers departing from the Indian airports due to involuntary re-routing i.e. technical problems or weather conditions.

17.1.8. **GENERAL CONDITION:**

- a) All the above Charges are excluding GST. GST at the applicable rates are payable in addition to above charges.
- b) Flight operating under Regional Connectivity Scheme will be completely exempted from charges as per Order No. 20/2016-17 dated 31/03/2017 of the Authority from the date the scheme is operationalized by GOI.

17.2. Annexure II: Annual Tariff proposed by the Authority for Consultation Process

17.2.1. The Authority has examined the Annual Tariff Proposal submitted by AAI for NSCBIA, Kolkata. After examination as given in Chapter 14.2, the Authority has proposed the following aeronautical tariffs for NSCBIA, Kolkata for the Third Control Period for consultation process:

Table 110: Landing charges (domestic) for Third Control Period proposed to be considered by the Authority

Weight of the Aircraft	FY 2022 Existing Rate Per Landing (in Rs.)	FY 2023	FY 2024	FY 2025	FY 2026 (01.04.2025 to 31.12.2025)	FY 2026 (01.01.2026 to 31.03.3026)
Up to 25 MT	Rs. 416 per MT	Rs. 426 per MT	Rs. 436 per MT	Rs. 446 per MT	Rs. 456 per MT	Rs. 388 per MT
Above 25 MT up to 50 MT	Rs. 10,405 plus Rs. 483.7 per MT in excess of 25 MT	Rs. 10,650 plus Rs. 495 per MT in excess of 25 MT	Rs. 10,900 plus Rs. 506 per MT in excess of 25 MT	Rs. 11,150 plus Rs. 518 per MT in excess of 25 MT	Rs. 11,400 plus Rs. 530 per MT in excess of 25 MT	Rs. 9,700 plus Rs. 450 per MT in excess of 25 MT
Above 50 MT up to 100	Rs. 22,497.5 plus Rs. 562.4 per MT in excess of 50 MT	Rs. 23,025 plus Rs. 575 per MT in excess of 50 MT	Rs. 23,550 plus Rs. 589 per MT in excess of 50 MT	Rs. 24,100 plus Rs. 602 per MT in excess of 50 MT	Rs. 24,650 plus Rs. 616 per MT in excess of 50 MT	Rs. 20,950 plus Rs. 524 per MT in excess of 50 MT
Above 100 MT to 200 MT	Rs. 50,617.5 plus Rs. 641.2 per MT in excess of 100 MT	Rs. 51,775 plus Rs. 656 per MT in excess of 100 MT	Rs. 53,000 plus Rs. 671 per MT in excess of 100 MT	Rs. 54,200 plus Rs. 687 per MT in excess of 100 MT	Rs. 55,450 plus Rs. 703 per MT in excess of 100 MT	Rs. 47,150 plus Rs. 597 per MT in excess of 100 MT
Above 200 MT	Rs. 1,14,737.5 plus Rs. 742.5 per MT in excess of 200 MT	Rs. 1,17,375 plus Rs. 760 per MT in excess of 200 MT	Rs. 1,20,100 plus Rs. 777 per MT in excess of 200 MT	Rs. 1,22,900 plus Rs. 795 per MT in excess of 200 MT	Rs. 1,25,750 plus Rs. 814 per MT in excess of 200 MT	Rs. 1,06,850 plus Rs. 692 per MT in excess of 200 MT

Table 111: Landing charges (International) for Third Control Period proposed to be considered by the Authority

Weight of the Aircraft	FY 2022 Existing Rate Per Landing (in Rs.)	FY 2023	FY 2024	FY 2025	FY 2026 (01.04.2025 to 31.12.2025)	FY 2026 (01.01.2026 to 31.03.3026)
Up to 25 MT	Rs. 804.2 per MT	Rs. 823 per MT	Rs. 842 per MT	Rs. 861 per MT	Rs. 881 per MT	Rs. 749 per MT
Above 25 MT up to 50 MT	Rs. 20,105 plus Rs. 888.7 per MT in excess of 25 MT	Rs. 20,575 plus Rs. 909 per MT in excess of 25 MT	Rs. 21,050 plus Rs. 930 per MT in excess of 25 MT	Rs. 21,525 plus Rs. 952 per MT in excess of 25 MT	Rs. 22,025 plus Rs. 974 per MT in excess of 25 MT	Rs. 18,725 plus Rs. 828 per MT in excess of 25 MT
Above 50 MT up to 100	Rs. 42,322.5 plus Rs.	Rs. 43,300 plus Rs. 995	Rs. 44,300 plus Rs.	Rs. 45,325 plus Rs.	Rs. 46,375 plus Rs.	Rs. 39,425 plus Rs. 906

Weight of the Aircraft	FY 2022 Existing Rate Per Landing (in Rs.)	FY 2023	FY 2024	FY 2025	FY 2026 (01.04.2025 to 31.12.2025)	FY 2026 (01.01.2026 to 31.03.2026)
	973.0 per MT in excess of 50 MT	per MT in excess of 50 MT	1,018 per MT in excess of 50 MT	1,042 per MT in excess of 50 MT	1,066 per MT in excess of 50 MT	per MT in excess of 50 MT
Above 100 MT to 200 MT	Rs. 90,972.5 plus Rs. 1,068.6 per MT in excess of 100 MT	Rs. 93,050 plus Rs. 1,093 per MT in excess of 100 MT	Rs. 95,200 plus Rs. 1,119 per MT in excess of 100 MT	Rs. 97,425 plus Rs. 1,144 per MT in excess of 100 MT	Rs. 99,675 plus Rs. 1,171 per MT in excess of 100 MT	Rs. 84,725 plus Rs. 995 per MT in excess of 100 MT
Above 200 MT	Rs. 1,97,832.5 plus Rs. 1,181.1 per MT in excess of 200 MT	Rs. 2,02,350 plus Rs. 1,208 per MT in excess of 200 MT	Rs. 2,07,100 plus Rs. 1,236 per MT in excess of 200 MT	Rs. 2,11,825 plus Rs. 1,265 per MT in excess of 200 MT	Rs. 2,16,775 plus Rs. 1,294 per MT in excess of 200 MT	Rs. 1,84,225 plus Rs. 1,100 per MT in excess of 200 MT

- i. No landing charges shall be payable in respect of a) aircraft with a maximum certified passenger capacity of less than 80 seats, being operated by domestic schedule operators at airport and b) helicopters of all types C) DGCA approved flying school/flying training institute aircrafts.
- ii. All domestic legs of international routes flown by Indian Operators will be treated as domestic flights as far as landing charges is concerned, irrespective of flight number assigned to such flights.
- iii. Charges shall be calculated on the basis of nearest MT (i.e. 1000 kg).
- iv. Flight operating under regional connectivity scheme will be completely exempted from Landing charges from the date of the scheme is operationalized by GOI.

Table 112: Parking charges up to two hours after free hours for the Third Control Period proposed to be considered by the Authority*

Weight of the Aircraft	FY 2022 (existing rate)	FY 2023	FY 2024	FY 2025	FY 2026 (Q1 to Q3)	FY 2026 (Q4)
	Tariff w.e.f. 01.04.2021	Tariff w.e.f. 01.04.2022	Tariff w.e.f. 01.04.2023	Tariff w.e.f. 01.04.2024	Tariff w.e.f. 01.04.2025	Tariff w.e.f. 01.01.2026
Up to 100 MT	Rs. 16.7 per MT per hour	Rs. 17.1 per MT per hour	Rs. 17.5 per MT per hour	Rs. 17.9 per MT per hour	Rs. 18.3 per MT per hour	Rs. 15.6 per MT per hour
Above 100 MT	Rs. 1,670 plus Rs. 21.7 per MT per hour in excess of 100 MT	Rs. 1,710 plus Rs. 22.2 per MT per hour in excess of 100 MT	Rs. 1,750 plus Rs. 22.7 per MT per hour in excess of 100 MT	Rs. 1,790 plus Rs. 23.2 per MT per hour in excess of 100 MT	Rs. 1,830 plus Rs. 23.8 per MT per hour in excess of 100 MT	Rs. 1,555 plus Rs. 20.2 per MT per hour in excess of 100 MT

*Housing charges subsumed within parking charges

Table 113: Parking charges beyond first four hours for the Third Control Period proposed to be considered by the Authority

Weight of the Aircraft	FY 2022 (existing rate)	FY 2023	FY 2024	FY 2025	FY 2026 (Q1 to Q3)	FY 2026 (Q4)
	Tariff w.e.f. 01.04.2021	Tariff w.e.f. 01.04.2022	Tariff w.e.f. 01.04.2023	Tariff w.e.f. 01.04.2024	Tariff w.e.f. 01.04.2025	Tariff w.e.f. 01.01.2026
Up to 100 MT	Rs. 32.7 per MT per hour	Rs. 34.2 per MT per hour	Rs. 35 per MT per hour	Rs. 35.8 per MT per hour	Rs. 36.6 per MT per hour	Rs. 31.1 per MT per hour
Above 100 MT	Rs. 3,270 plus Rs. 43.8 per MT per hour in excess of 100 MT	Rs. 3,415 plus Rs. 44.4 per MT per hour in excess of 100 MT	Rs. 3,495 plus Rs. 45.4 per MT per hour in excess of 100 MT	Rs. 3,575 plus Rs. 46.5 per MT per hour in excess of 100 MT	Rs. 3,660 plus Rs. 47.6 per MT per hour in excess of 100 MT	Rs. 3,110 plus Rs. 40.4 per MT per hour in excess of 100 MT

- i. No parking charges shall be levied for the first two hours. While calculating free parking period, standard time of 15 minutes shall be added on account of time taken between touch down time and actual parking time on the parking stand. Another standard time of 15 minutes shall be added on account of taxing time of aircraft from parking stand to take off point. These periods shall be applicable for each aircraft irrespective of actual time taken in the movement of aircraft after landing and before take-off.
- ii. For calculating chargeable parking time, part of an hour shall be rounded off to the nearest hour.
- iii. Charges shall be calculated based on nearest MT.
- iv. Charges for each period parking shall be rounded off to nearest rupee.
- v. At the in-contact stands and open stands, after free parking, for the next two hours normal parking charges shall be levied. After this period, the charges shall be double the normal parking charges.
- vi. It is proposed to waive off the night parking charges in principle for all domestic scheduled operators at NSCBIA, Kolkata if the State Government has brought the rate of tax (VAT) on ATF < 5%. The above waiver of night parking charges (between 2200 hrs. to 0600 hrs) will be made applicable from the date of implementation of < 5% tax on ATF by the State Govt. In the event of upward revision in the tax rate of ATF by the State Govt., the relief of free night parking charges will also be deemed to be withdrawn.
- vii. Flight operating under Regional Connectivity Scheme will be completely governed by AIC issued on this subject by DGCA.
- viii. For unauthorized overstay of aircraft an additional charge of Rs. 20.00 per hour per MT beyond 24 hours is to be payable.

Fuel Throughput Charges

- 17.2.2. The Ministry of Civil Aviation has discontinued the levy of Fuel Throughput Charges (FTC) from all airports w.e.f. 15th January 2020 vide MoCA letter no. F.No. AV-13030/216/2016-ER (Pt.2)

dated 8th January 2020. Accordingly, the Authority has not proposed any Fuel Throughput Charges

Aerobridge Charges:

17.2.3. Aerobridge charges are payable for each usage as per the rates given below:

Table 114: Aerobridge charges for Third Control Period proposed to be considered by the Authority

Aircraft	FY 2022 (existing rate)	FY 2023	FY 2024	FY 2025	FY 2026 (Q1 to Q3)	FY 2026 (Q4)
	Tariff w.e.f. 01.04.2021	Tariff w.e.f. 01.04.2022	Tariff w.e.f. 01.04.2023	Tariff w.e.f. 01.04.2024	Tariff w.e.f. 01.04.2025	Tariff w.e.f. 01.01.2026
Domestic	Rs. 2,315	Rs. 2,370	Rs. 2,425	Rs. 2,480	Rs. 2,535	Rs. 2,155
International	Rs. 4,631	Rs. 4,740	Rs. 4,850	Rs. 4,960	Rs. 5,075	Rs. 4,315

- For calculating chargeable aerobridge usage time, any part of an hour shall be rounded off to the next hour.
- Charges for each usage shall be rounded off to the nearest Rupee.

User Development Fees

Table 115: User Development Fees proposed to be considered for the Third Control Period by the Authority

Aircraft	FY 2022 (existing rate)	FY 2023	FY 2024	FY 2025	FY 2026 (Q1 to Q3)	FY 2026 (Q4)
	Tariff w.e.f. 01.04.2021	Tariff w.e.f. 01.04.2022	Tariff w.e.f. 01.04.2023	Tariff w.e.f. 01.04.2024	Tariff w.e.f. 01.04.2025	Tariff w.e.f. 01.01.2026
Domestic	583	Rs. 595	Rs. 610	Rs. 625	Rs. 640	Rs. 545
International	1,402	Rs. 1,435	Rs. 1,465	Rs. 1,500	Rs. 1,535	Rs. 1,305

Notes:

17.2.4. UDF Collection:

- UDF Collection Charges: If payment is made within 15 days from receipt of invoice, then collection charges per departing passenger shall be paid by AAI as per the policy pertaining to such charges between the Airport Operator and the airlines. No collection charges shall be paid in case the airline fails to pay the UDF invoice to AAI within the credit period of 15 days or in case of any part payment.
- No collection charges are payable to casual operator/non-scheduled operators.
- For calculating the UDF in foreign currency, the RBI conversion rate as on the last day of the previous month for tickets issued in the 1st fortnight and rate as on 15th of the month for tickets issued in the 2nd fortnight shall be adopted.
- No UDF will be levied for Transit Passengers.

17.2.5. **Aviation Security Fee (ASF)**: Will continue to be **charged** as rate prescribed by MoCA from time to time.

17.2.6. Exemption from levy and collection from UDF at the Airports:

The Ministry of Civil Aviation, Govt. of India vide order no. AV.16011/002/2008-AAI & vide Letter no. AV.13024/659/2015-AS dated 30.11.2011 & 13.06.2019 respectively has directed AAI to exempt the following categories of persons from levy and collection of UDF.

- a) Children (under the age of 2 years),
- b) Holders of Diplomatic Passport,
- c) Airlines crew on duty including sky marshals & airline crew on board for particular flight only (this would not include Dead Head Crew, or ground personnel),
- d) Persons travelling on official duty on aircraft operated by Indian Armed Forces,
- e) Persons traveling on official duty for United Nations Peace Keeping Missions.
- f) Transit/transfer passengers (this exemption may be granted to all the passengers transiting up to 24 hrs. "A passenger is treated in transit only if onward travel journey is within 24 hrs. from arrival into airport and is part of the same ticket, in case 2 separate tickets are issued it would not be treated as transit passenger").
- g) Passengers departing from the Indian airports due to involuntary re-routing i.e. technical problems or weather conditions.

17.2.7. GENERAL CONDITION:

- a) All the above Charges are excluding GST. GST at the applicable rates is payable in addition to above charges.
- b) Flight operating under Regional Connectivity Scheme will be completely exempted from charges as per Order No. 20/2016-17 dated 31/03/2017 of the Authority from the date the scheme is operationalized by GOI.

17.3. Annexure III: Capital additions in the Second Control Period

A. Capital Additions approved in the Second Control Period Order and commissioned in the Second Control Period

Table 116: Capital additions approved by the Authority in Second Control Period and capitalised in Second Control Period

Project Name (in Rs. Cr.)	Year	As per SCP Order (in Rs. Cr.)	As per Actuals (in Rs. Cr.)	Difference (in Rs. Cr.)	Remarks
15 MW Ground mounted solar power plant		81.07	81.84	0.77	Minor deviation
CAT IIIB: Lighting work for main runway	2017-18	61.68	52.78	2.78	Minor deviation
CAT IIIB: Runway resurfacing and RCC drain			0.96		
CAT IIIB: Power supply for sub-station equipment (DG set)			5.16		
Construction of isolation bay	2016-17	31.00	32.96	1.96	Increase in cost since there was a requirement to increase shoulder width.
Re-construction of F-taxi track	2016-17	5.00	15.47	10.47	Increase in scope of work due to development of 8 parking bays, extention of apron, contruction of RETs, provision of fillets, provision of drainage system of the apron and connection to main storn water drains and culverts below the taxitrack/apron
8 th departure conveyor system at NITB	2017-18	11.90	10.11	-0.13	Minor deviation
IN-MOTION WEIGHING SCALE @ S-LIFTER (BHS CONVEYOR)			1.08		
REDUNDANCY BETWEEN DEPRT LINE 8 & 6 PRIOR TO X-RAY			0.83		
RCC drain at northern side of operational area	2016-17	10.32	9.85	-4.29	The deviation is due to some extra area of drainage in operational area being covered as per operational requirement.
Upgradation of drainage system	2019-20		4.77		
Construction of sub-fire station	2017-18	7.12	6.83	-0.29	Minor deviation
Diversion of perimeter road (ground mounted solar panels)	2016-17	4.38	4.81	(3.51)	
Construction of underground sump, borewell	2016-17		2.26		

Project Name (in Rs. Cr.)	Year	As per SCP Order (in Rs. Cr.)	As per Actuals (in Rs. Cr.)	Difference (in Rs. Cr.)	Remarks
Operational area development (ground mounted solar panels)	2017-18		0.83		The deviation is due to some extra area of drainage in operational area being covered as per operational requirement.
Fillet in S-side at K-taxi track & main runway junction	2016-17	2.62	2.9	0.28	Minor deviation
Restructure of broken slabs & bays for a/craft mov	2016-17	2.15	2.17	0.02	Minor deviation
Alternate feeder for essential services of NITB	2017-18	2	2.08	0.08	Minor deviation
Energy conservation: led luminaries @ NITB departure	2018-19	2.31	1.84	(0.47)	Minor deviation
Improvement air-conditioning: @departure sha nitb	2017-18	9.25	1.59	2.47	Work executed as proposed for achieving better passenger facilitation. The incurred cost is as per lowest tender.
Automation of 12000 tr HVAC & integration of AHU	2019-20		1.56		
Additional cooling tower for 12000tr HVAC plant	2018-19		1.5		
Window & split ACs at NITB server rooms	2017-18		1.25		
AIRCONDITIONING SYSTEM @ CCR HALL (i/c SPLIT UNIT)	2017-18		0.88		
Walkway in roof trusses – NITB	2016-17	1.29	1.5	0.21	Increase in cost due to additional area covered
Silencers acoustic lining ducting for exhaust fan	2018-19	1.02	0.56	(0.75)	Increase in scope of work
AUTOMATION OF SMOKE EXTRACTION FAN @ DEPARTURE	2018-19		0.09		
Air conditioning - dept, arrival additional area at NITB	2016-17		1.12		
Approach road towards 19 R RESA	2016-17	1.05	1.05	-	-
Modification/ upgradation of ceremonial lounge @ old ITB	2016-17	0.8	0.85	0.05	Increase in cost due to additional area covered
Construction and modification of toilet: NITB departure (civil)	2019-20	0.28	0.77	0.49	Increase in scope of work - more toilets were constructed/modified
Guidance signage for secondary runway	2018-19	0.8	0.72	(0.08)	Minor deviation
Other Works (below Rs. 0.70 Cr.)		7.69	7.23	(0.46)	-
Total		243.72	260.20	16.48	

B. Capital additions incurred in the Second Control Period but not approved in the Second Control Period Order

Table 117: Capital additions not mentioned in Second Control Period submission but claimed by AAI in true-up

S No.	Project Name	Year	Proposed by AAI in SCP (in Rs. Cr.)	Reasons for incurring
1	Supply, installation, testing and commissioning of Inline XBIS TSA/Standard 3 (EU) (7 units)	2019-20	47.22	As per BCAS Guidelines the inline XBS has been replaced for upgradation with CTX type. 7 new CTX inline Xray machine has been installed.
2	Pavement works for link taxi, apron, and shoulders	2018-19	30.01	
3	Purchase of 11,382 trolleys	2020-21	26.40	Purchased to facilitate passengers
4	Construction of two additional 4C parking bays	2018-19	14.73	Due to the shortage of parking space, there was an operational requirement to construct additional parking bays.
5	Fall protection and walkway system on NITB roof	2019-20	14.62	Incurred because the slope of NITB roof is quite steep and it was very difficult to maintain the roof without taking up this work especially during cyclones.
6	Providing 8th departure conveyor line and additional departure conveyors at terminal T-2	2020-21	14.33	Work executed due to operational requirement of catering the increased the passenger traffic.
7	08 Automatic Tray Retrieval System	2020-21	12.39	In order to reduce passenger waiting time and improve operational efficiency.
8	Construction of road parallel to main runway approaching overshoot/undershoot area by CFTs	2020-21	9.85	Work taken up due to operational requirement and also to some extent, concerned with security.
9	Supply of threat containment vessel	2018-19	8.69	Purchase of Threat containment vessel. It is an additional requirement and is crucial for the safety of the passengers.
10	Widening and strengthening of perimeter road	2018-19	8.54	Operational requirement as per BCAS guidelines so that 2 CFTs can pass parallelly


S No.	Project Name	Year	Proposed by AAI in SCP (in Rs. Cr.)	Reasons for incurring
11	Wayfinding signages at T2	2020-21	8.54	Way finding signages are to be made similar across all airports in India. This expenditure is regarding that.
12	Biometric access control system - Kolkata	2019-20	6.98	Required for Biometric AEP project as per Bureau of Civil Aviation (BCAS) guidelines.
13	Network component (active) @ data centre	2020-21	6.98	IT Network infrastructure upgradation required for passenger facilitation infrastructure maintenance in the terminal building.
14	SITC INLINE XBIS TSA/STANDARD 3 (EU) (1 unit)	2020-21	6.13	As per BCAS Guidelines the inline XBS has been replaced for upgradation with CTX type. 1 new CTX inline Xray machine has been installed
15	1000 NOS. three-seater chairs for terminal building	2019-20	6.1	Purchased to facilitate passengers
16	TAXIWAY "A" BETWEEN junction of C taxi to F taxi & G taxi	2017-18	5.72	Condition of taxiway was very deteriorated and pot holes were frequent. Complains from the users were received and accordingly the work was taken up urgently.
17	Modification of existing bus lounge i/c providing transit lounge at arrival level of NSCBI Airport, Kolkata	2020-21	5.59	Due to increase the number of simultaneously operating flight movement, additional passenger boarding gate required to be provided and also to provide D to D facility.
18	Rubber Removal Machine (AR 346)	2019-20	5.29	Additional requirement and replacement of rubber removal system at Airport runway. This is important for smooth take-off and landing operations.
19	DSITC of new carousels (for portal E & G)	2020-21	4.99	
20	Rosenbauer Panther 6X6 ACFT AR - 313	2017-18	4.25	These are CFTs and are required to maintain safety measures and operational efficiencies at the airport.
21	Rosenbauer Panther 6X6 ACFT AR - 314	2017-18	4.24	These are CFTs and are required to maintain safety measures and operational efficiencies at the airport.

S No.	Project Name	Year	Proposed by AAI in SCP (in Rs. Cr.)	Reasons for incurring
22	C/o approach/ Exit Rd. at strategic location from both main & secondary rwy.	2020-21	3.71	There was an operational requirement to construct a road using which quick exit/ approach from/to the runway can be made in case of any untoward incident.
23	HT LT Network Rearrangement @ AAI Colony	2018-19	3.25	Work executed to
24	Storage Capacity Augmentation @ Data Centre	2018-19	3.17	IT infrastructure upgradation required for data center Storage systems of SCCTV systems in the terminal building
25	02 Automatic Tray Return System with DV X-Ray	2019-20	3.15	To reduce passenger waiting time
26	Parking Space for GS Equipment Of Airlines	2019-20	3.1	Demands were received from various airlines for more GSE parking area. Hence this work was taken up.
27	Upgradation -Inline X-Bis NITB: International Side	2016-17	3	As per BCAS Guidelines the inline XBS has been replaced for upgradation with CTX type
28	Energy Conservation Measure SH: Replacement of existing Conventional Luminaries with suitable LED Luminaries at NSCBIA Kolkata. (Elect. Work).	2020-21	2.98	Work executed for replacing light fittings as proposed for achieving energy conservation measures.
29	Hyper Converged Infrastructure @ Data Centre	2018-19	2.89	IT infrastructure upgradation required for data center Server for SCCTV and FIDS systems in the terminal building as old servers became obsolete and .
30	Shoulder/Ramp Area @ North Side of Cargo Bay C-5	2017-18	2.65	This work was taken up since there was a dearth of space to accommodate parking ground safety equipment
31	Biometric Access Control System	2020-21	2.46	Required for Biometric (Airport Entry Permit) AEP project as per Bureau of Civil Aviation (BCAS) guidelines.
32	Interfacing Work: 8 th departure conveyor with existing BHS	2019-20	2.36	Work executed due to operational requirement for bringing the complete BHS of two different makes in one SCADA system.

S No.	Project Name	Year	Proposed by AAI in SCP (in Rs. Cr.)	Reasons for incurring
33	Car Park Infront CUDCT-ATC & Taxi Parking @ Old Dtb	2018-19	2.18	This work was urgent due to increased passenger. The original car park area was required to be reduced for the construction of the new ATC tower.
34	Differential Storage: Dell EMC 4000 GB NL SAS H/D	2019-20	2.05	IT infrastructure upgradation was required for data center storage systems of SCCTV units in the terminal building
	Other works (below Rs. 2.00 Cr.)		71.81	
	Total		360.36	

17.4. Annexure IV: Minutes of AUCC meeting

Minutes of the AUCC Meeting



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

AAI/NSCBI/KOLKATA/TARIFF/2021 22.09.2021

The Executive Director (JVC/Tariff),
Airports Authority Of India,
Rajiv Gandhi Bhawan, Block-C,
Safdarjung Airport,
New Delhi-110003

Subject : Minutes of the Airport User Consultative Committee (AUCC) meeting held on 16.09.2021 at NSCBI Airport, Kolkata

Madam,

Enclosed please find herewith the minutes of AUCC meeting held on 16th September, 2021 at NSCBI Airport, Kolkata through Video Conference.

Thanking You,

Encl : as above.

C. Pattabhi
(C. PATTABHI)
AIRPORT DIRECTOR

Copy to :- 1. ED(Planning), CHQ
2. ED(Engineering-ER),CHQ

नेताजी सुभाष चन्द्र बोस अन्तरराष्ट्रीय विमानस्थल, कोलकाता-700 052 फोन : 2511-8266 फैक्स : 2511-8787 वेबसाइट : www.nscbiairport.org
NETAJI SUBHAS CHANDRA BOSE INTERNATIONAL AIRPORT, KOLKATA-700 052 FAX : 2511-8266 EPABX : 2511-8787 Website : www.nscbiairport.org

Minutes of the Airport User Consultative Committee (AUCC) meeting held on 16.09.2021 at NSCBI Airport, Kolkata

The meeting was held at 11.30 hour(IST) through Video Conference with the AUCC members as per list of participants attached at Annexure-1.

Shri. C. Pattabhi, Airport Director, NSCBI Airport, Kolkata, welcomed all the members and thanked all the members for sparing their valuable time.

As per the AERA guidelines, the AUCC to elect a Chairperson from among its Members and accordingly as per practice Shri, Rahul Wadhwa, Chairman, AOC was elected as Chairman for this AUCC meeting.

A presentation was made by Shri. H. Pulla, General Manager (OPS-TM), NSCBI Airport, Kolkata on Airports overview covering operational statistics of NSCBI Airport, Kolkata.

Thereafter, a detailed presentation was made by Shri, Anupam Verma, General Manager (Civil), NSCBI Airport, Kolkata on the following Major Capital Projects considered / proposed in the third control period (2021-22 to 2025-26). All the projects considered in the third Control period are proposed to be financed an approximate mix of internal accruals and debts.

Sl. No.	Name of Major Project	Estimated /Actual/ Awarded Cost (Rs. in crores)
01	Metro connectivity to Terminal Bldg.	95.00
02	C/O CISF Complex on Narayanpur side	77.71
03	Capacity Enhancement of Terminal Building	123.00
04	Resurfacing of main RWY 19L/01R i/c provision of CAT-III B lighting system at 01R approach side of Main Runway.	98.35
05	Airside capacity enhancement	312.70

The presentation made by AAI, NSCBI Airport, Kolkata were appreciated by AUCC Members.

Thereafter the forum was opened for seeking the views of the stakeholders through Question & Hour Session.

The salient points discussed have been compiled and tabulated as under: -

Sl. No.	Stakeholders' views / concerns	NSCBI Airport's response
1	Project considered in the third control period: a) Mr. G. P. Gupta, Chief Strategy Officer, Spice Jet has suggested to hold and/or defer all Capital projects not impacting to safety and security to	Airport Director, NSCBI Airport, Kolkata has clarified that out of the five Major Projects considered in the

C. Pattabhi
श्री पट्टाभी / C PATTABHI
विमानपत्तन निदेशक / Airport Director
वा. वि. अ. ने. सु. च. ब. अ. इवाई अड्डा कोलकाता
AAI, NSCBI Airport, Kolkata

	<p>fourth Control period, such that there is least impact on the tariff due to downturn in the number of passengers due to pandemic.</p> <p>b) Mr. Dushyant Deep, Regulatory team, Indigo has requested AAI to review any Capital Project which is feasible to defer to Next Control period so as to reduce the tariff for the current Control period.</p> <p>c) Mr. Rahul Wadhwa, Chairman AOC & AUCC has also requested for a review on completion status of ongoing projects, which were present in the last AUCC Meeting.</p> <p>d) Mr. Ujjwal Dey, Associate Director, FIA enquired about the urgency of construction of CISF Complex project.</p>	<p>3rd Control Period, two works are already in progress and almost going to complete. Remaining three works are essential projects, since as per Tariff projection of NSCBI Airport, Kolkata will reach 31 million passengers by the year 2025-26 as against the present capacity of Terminal Building is 26 million PAX. So as such, NSCBI Airport, Kolkata has pruned the projects and taken up only bare minimum essential project to accommodate the expected growth during third control period.</p> <p>GM(Engg.-Civil), has also added that NSCBI Airport, Kolkata has already reviewed and dropped the planned project for construction of New Domestic Terminal Building at an estimated cost of about Rs.3600 crores during the third control period. GM(Engg.-Civil) has further informed regarding ongoing projects that most of the projects considered in last AUCC meeting (2nd control period) is completed and two major projects are in progress.</p> <p>As regards urgency of construction of CISF Complex Projects, APD, Kolkata have clarified that parallel F-Taxi track is already going on due to which some of the Barrack accommodation needs to be demolished and some are very old which have been survey reported, therefore the alternate accommodation is required for CISF personnel.</p>
2	<p>Normative Cost :</p> <p>1) Mr. G. P. Gupta, Chief Strategy Officer, Spice Jet has requested AAI to adhere to the Normative Norms without any deviation.</p> <p>2) Mr. Dushyant Deep, Regulatory team, Indigo has requested AAI to clarify adherence to AERA Normative norms for the Capital Projects, and if there is any deviation reasons for the same.</p>	<p>GM(Engg.-Civil) clarified that NSCBI Airport, Kolkata has already considered the Normative cost as per AERA Guideline. As per AERA 2016 Normative cost for Terminal Building is Rs. 65,000/- per SQM and for pavement is Rs.4700/- per SQM. All the estimated cost given in the presentation meet the Normative Cost requirements. Hence there is no deviation.</p>

सी पट्टाभी / C PATTABHI
 विमानचलन निदेशक / Airport Director
 वा.वि.आ. ने.सु.च.ब.अ. हवाई अड्डा कोलकाता
 AAI, NSCBI Airport, Kolkata

3	<p>Tariff Impact:</p> <p>1) Mr. G. P. Gupta, Chief Strategy Officer, Spice Jet has requested AAI to inform the impact of the proposed projects in the PIF on the tariff.</p> <p>2) Mr. Ujjawal Dey, Associate Director, FIA enquired about Tariff impact of these project for the Airport</p>	<p>GM(F&A), NSCBI Airport, Kolkata informed that the project cost considered in the PIF will be considered in RAB for the purpose of Tariff determination as per AERA guidelines.</p> <p>GM(F&A)-JVC/ Tariff Cell, AAI, CHQ has further clarified that, this is very preliminary stage and Tariff will be decided by AERA based on discussion and meeting to be held by AERA.</p>
4	<p>Other Points :</p> <p>a) Ms. Anushila Chaturvedi from Emirates has requested that some of the parking bays out of 08 nos parking bays planned by AAI may be reviewed to accommodate wider body Aircrafts. She also asked about future plan for fuelling hydrant in the Airside Capacity enhancement plan.</p> <p>b) Mr. Joseph of Bluedart has made query on plan and development of New Cargo Domestic Terminal and Cargo Parking for code 'D' Aircrafts.</p> <p>c) Mr. Rahul Wadhwa, Chairman AOC & AUCC and Mr. G. P. Gupta, Chief Strategy Officer, Spice Jet have requested to discontinue the Monopoly of Master Concessionaries for Food & Beverage at NSCBI Airport, Kolkata so as to increase the service standard and create a sense of competition.</p> <p>d) Mr. Rahul Wadhwa, Chairman AOC & AUCC has requested AAI to increase the capacity of the Bus lounge area to ease the passenger in convenience and</p>	<p>Airport Director, NSCBIA informed that the 1st point is well noted and put forward to Engineering Department for their examination and consideration.</p> <p>As regards point No.2, APD, Kolkata informed that provision of fuelling hydrant is in the Master Plan of NSCBI Airport, Kolkata and accordingly we are in talks with IOCL in this regard.</p> <p>GM(Engg.-Civil), informed that New Cargo Terminal Building has already been planned and the proposal is with AAICLAS and the work is likely to commence in the next financial year. He further informed that separate Cargo apron is also planned and pavement of this Cargo apron will be able to take load of 'E' category Aircraft.</p> <p>APD, Kolkata informed that the point is well noted and shall be taken up with Corporate Head Quarters of AAI.</p> <p>GM(Engg.-Civil), clarified that four more Bus Gates already taken in the Capacity enhancement plan of the</p>

सी पट्टाभी / C PATTABHI
 विमानचलन निदेशक / Airport Director
 वा.वि.आ. ने.सु.च.ब.अ. हवाई अड्डा कोलकाता
 AAI, NSCBI Airport, Kolkata

also to increase the security hold area right opposite to gate 101-103, by shifting Glass wall partition.	Terminal building. The point regarding extending SHA area is well noted and the same will be forwarded to AAI, Planning department for feasibility check.
e) Mr. Rahul Wadhwa, Chairman AOC & AUCC suggested to address the issue of waterlogging during rainy season in and around Airport premises by including local Civic Authorities and look for project like Rain water harvesting etc.	GM (Egg. -Civil) informed that to address the waterlogging issues already lot of work has already been done in this regard. There are four outlets and four lagoons for water storage as per advice of Jadavpur university and pumping stations are also placed. We are in continuous touch with Municipal Corporation / Civic Bodies for improvement in their system. He also added that water table at Kolkata is high. Hence, Rain Water harvesting may not be feasible, however as an alternative we have lagoons and more lagoons will be added in future. In addition, Water Storage Tank will be made for Rain water collection at new ATC complex also. APD, Kolkata further informed that the matter has been taken up with State Civic authorities and the situation have improved in last two years. We are planning consultant for future plan to mitigate the issue. Airport Director, Kolkata informed that the space rate is a policy matter and the same will be projected to AAI, CHQ. In respect of Aero bridge Charges, UDF, Landing & Parking Charges and the same may be discussed in the meeting to be convened by AERA on Tariff determination.
f) Tariff / charges related points -- Mr. G. P. Gupta, Chief Strategy Officer, Spice Jet and Mr. Rahul Wadhwa, Chairman AOC & AUCC have requested AAI (i) to discontinue charges which are not being charged by any other Airports, like Aero Bridge Charges (ii) Hold and decrease space rental during pandemic period. (iii) re-consider and reduce landing, parking charges to encourage International departure. (iv) reduce UDF to attract more passenger. (v) engage independent consultant in determination of passenger / traffic / cargo during third control period.	

The meeting ended with vote of thanks to the chair.

C. Pattabhi
श्री पट्टाभी / C PATTABHI
 विमानचलन निदेशक / Airport Director
 वा. वि. प्र. ने. सु. सं. र. अ. इ. आई. अ. ए. कोलकाता
 AAI, NSCB Airport, Kolkata

Annexure – 'I'

The List of Members attended meeting

AUCC Members: -

SL No	Name (Mr./Ms)	Designation	Organization
01	Rahul Wahwa	Chairman, AOC / Airport Manager	Indigo
02	H N Mishra	Deputy Director (Air Safety)	DGCA, ER
03	Rupesh	Regional Director, ER	BCAS
04	Manesh Sharma		ASSOCHAM, Kolkata
05	Dushyant Deep	Regulatory team	Indigo
06	G P Gupta	Chief Strategy Officer	Spicejet
07	Anushila Chaturvedi	Airport Manager	Emirates
08	Ujjawal Dey	Associate Director	FIA
09	Vivek Verma	Chief manager(Aviation)	Indian Oil
10	S S Bisht	Regulatory Affairs	Spicejet
11	Chandra Shekhar Passi	Airport Manager	Spicejet
12	Saif Khan	Airport Manager	Vistara
13	Debashish Dutta	Airport Manager	Air Asia
14	Bharti Das Gupta	Representative	Air India
15	Poonam Yadav	Manager (Airport Services)	Spicejet
16	Shekhar	Sub Inspector	CISF

AAI Official: -

SL No	Name (Mr./Ms)	Designation	Organization
01	C. Pattabhi	Airport Director	AAI
02	H. Pulla	GM (Ops-TM)	AAI
03	L. Kupplingam	GM (Finance)	AAI
04	Anupam Verma	GM (Engg-Civil)	AAI
05	G. G. Tharakan	GM(Engg-Elect)	AAI
06	Manoj Kr. Behera	GM(Ops-ASM)	AAI
07	Deepak	GM (Fin-Regulatory Cell)	AAI

18. APPENDICES

Appendix I: AAI's letter dated 18 August 2021

Sub: SpiceJet Letter dated 19.02.2021 'Landing Charges in respect of aircraft with a maximum certified capacity of less than 80 seats being operated by domestic schedule operator'



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

F.No. AAI/740/2021-JVC

18th August, 2021

Mr. Ram Kishan,
Director (P&S)
Airports Economic Regulatory Authority of India,
New Delhi

Sub: SpiceJet Letter dated 19.02.2021 "Landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operator".

Sir,

This is with reference to AERA letter dated 30th April 2020 on the subject.

2. In this regard the submission of AAI is as follows:-
 - a) The MoCA Order dated 09.02.2004, inter alia, states that no landing charges shall be payable in respect of aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operators.
 - b) The tariffs for the said airports were determined after extensive stakeholders' consultations and landing exemption as per 2(a) above was not considered by AERA in the first control period. However it was considered in the 2nd control period although there was no change in the policy of MOCA from 1st control period to 2nd control period.
 - c) AAI has been levying Landing charges on International flights operated by less than 80 seater aircrafts in the 1st and 2nd Control Periods as per MoCA and AERA order. The issue of the applicability of the exemption of the landing charges in respect of International flights raised by the airlines is a matter of interpretation and AERA may take suitable decision.
 - d) The revision of any tariff order is AERA's discretion. However, if AERA is to consider the Airlines' request and allow the exemption from landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats in 1st Control Period, then it will be incumbent upon AERA to compensate AAI in the 3rd Control Period for revenue loss including interest through adjustment of the ARR of the first control period.
3. This issues with the approval of Competent authority.

Best regards,

Yours sincerely,


(V. Vidya)

Executive Director (JVC)

राजीव गांधी भवन
Rajiv Gandhi Bhawan

सफदरजंग हवाई अड्डा नई दिल्ली-110003
Safdarjung Airport, New Delhi-110003

दूरभाष : 24632950
Phone : 24632950

Appendix II - SpiceJet's Letter dated 19 February 2021

Sub: Landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operator

SpiceJet Limited
 319 Udyog Vihar, Phase-IV,
 Gurugram 122016, Haryana, India.
 Tel: + 91 124 3913939
 Fax: + 91 124 3913844

February 19, 2021

The Airports Economic Regulatory Authority of India,
 AERA Building,
 Administrative Complex,
 Safdarjung Airport,
 New Delhi – 110003

Subject: Landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operator.

Dear Sir,

With reference to the captioned subject, we wish to submit as follows:

1. SpiceJet Limited, is a scheduled air operator in India and hold a valid Air Operator Certificate bearing No. S-16 issued by the Director General of Civil Aviation. We are authorised to perform commercial air operations in accordance with Rule 134 of the Aircraft Rules, 1937. It is pertinent to mention here that amongst other aircraft we also operate Q400 aircraft with certified capacity of 78 seats.
2. We wish to bring to your attention that the Government of India (vide order F.No.Av.13011/02/2003-DT dated 21.7.2003) constituted Naresh Chandra Committee (the "**Committee**") to chart a road map for rapidly rationalising and reforming the aviation sector in India. The Committee submitted its report, suggesting dramatic changes to revitalize the Indian civil aviation sector focusing on privatization, encouraging foreign investment, affordability, viability and safety.

Please note that the Committee *inter-alia* recommended that airport charges should be substantially brought down to levels comparable with neighbouring South East Asian and Gulf countries. Based on this recommendation of the Committee, the Ministry of Civil Aviation, Government of India ("**MOCA**"), vide its order dated February 9, 2004 ("**MOCA Tariff Order**") directed the Airport Authority of India ("**AAI**") regarding reduction in airport charges and complete exemption from landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operator. Consequently, AAI vide its letter dated February 11, 2004 bearing no. Av.11014/22/2002-Rev/ ("**AAI Tariff Order**") communicated to all airports about the implementation of MOCA Tariff Order. The relevant extract of the MOCA Tariff Order and AAI are reproduced herein below for ease of reference:

"(iii) No landing charges shall be payable in respect of:-

(a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators; and

(b) Helicopters of all types."

Page 1 of 5



Registered Office: Indira Gandhi International Airport, Terminal 1D, New Delhi – 110037, India. Website : www.spicejet.com
 CIN: L51909DL1984PLC288239



SpiceJet Limited
 319 Udyog Vihar, Phase-IV,
 Gurugram 122016, Haryana, India.
 Tel: + 91 124 3913939
 Fax: + 91 124 3913844

The copies of MOCA Tariff Order and AAI Tariff Order are attached herewith for your ready reference and marked as **Annexure – 1** and **Annexure – 2**, respectively.

3. The Government of India promulgated the Airports Economic Regulatory Authority of India Act, 2008 (the “AERA Act”) on January 1, 2009 for establishment of Airports Economic Regulatory Authority (“AERA”) to regulate tariff and other charges for the aeronautical services rendered at airports. Effective establishment of the AERA under Section 3 of the AERA Act on May 12, 2009, the airports under AAI have been classified as “major airports” and “non-major airports”. The tariffs for aeronautical services at “major airports” are determined by the AERA under Section 13(1)(a) of the AERA Act and for all other airports, the tariffs for aeronautical services are determined and approved by MOCA.
4. Please note that in terms of Section 3 of the AERA Act, AERA has issued orders bearing (i) No. 35/2012-13 on January 24, 2013 in the matter of determination of aeronautical tariff in respect of Netaji Subhash Chandra Bose International Airport, Kolkata for first Control Period (01.04.2011 – 31.03.2016); and (ii) No. 38/2012-13 on February 4, 2013 in the matter of determination of aeronautical tariff in respect of Chennai International Airport, Chennai for first Control Period (01.04.2011 – 31.03.2016) (collectively referred as “**First Control Period Orders**”).

While issuing the First Control Period Orders, AERA did not provide the exemption of landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, as recommended by the Committee and further approved by MOCA Tariff Order and AAI Tariff Order. It is pertinent to mention here that First Control Period Orders were issued on the basis of Multi Year Tariff Proposal (MYTP) for first control period as submitted by AAI. You will appreciate that while submitting MYTP for first control period to AERA, AAI did not submit the proposal for exemption of landing charges available in respect of aircraft with a maximum certified capacity of less than 80 seats in violation of the MOCA Tariff Order read with Section 22 of the Airports Authority of India Act, 1994 (the “AAI Act”).

Therefore, First Control Period Orders are based on wrong MYTP as submitted by AAI. This has defeated the very intent of recommendation of the Committee as well as violated the MOCA Tariff Order and Section 22 of the AAI Act and has caused irreparable loss to domestic schedule operator (like SpiceJet) vis-à-vis landing charges at Kolkata and Chennai Airport in respect of aircraft with a maximum certified capacity of less than 80 seats (like Q400 aircraft). Further, it also defeats the whole purpose of rationalising and reforming the aviation sector and especially promoting operations of smaller aircraft, wherein such exemption from landing charges was key to the decision making of the airline (including SpiceJet) to induct such small aircraft. Hence AAI is estopped from levy of such landing charges on this basis itself.

In other words, effective First Control Period Orders based on wrong MYTP of AAI, the AAI has wrongfully charged landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operator.

Please note that AAI has wrongfully charged us an amount of Rs.32,29,99,437 during First Control Period Orders towards landing charges of Q400 aircraft (78 seat) at Kolkata and

Page 2 of 5



Registered Office: Indra Gandhi International Airport, Terminal 1D, New Delhi – 110037, India. Website : www.spicejet.com
 CIN: L51909DL1984PLC288239



SpiceJet Limited
319 Udyog Vihar, Phase-IV,
Gurgaon 122016, Haryana, India.
Tel: + 91 124 3913939
Fax: + 91 124 3913844

Chennai Airport in the guise of the First Control Period Orders which was issued on erroneous MYTP of AAI and are in contradiction of recommendation of the Committee as well as MoCA Tariff Order. Summary of such wrongful charges are as follows and detailed calculation sheet is attached as **Annexure – 3**:

S. No.	Name of the Airport	Period	Amount (in Rs.)
1.	Netaji Subhash Chandra Bose International Airport, Kolkata	April 1, 2011 to November 30, 2017	2,79,82,821
2.	Chennai International Airport, Chennai	March 1, 2013 to April 30, 2018	29,50,16,616
Total			32,29,99,437

5. Following the First Control Period Orders, AERA recognised the recommendation of the Committee and the MOCA Tariff Order and passed following orders under Section 13(1)(a) of the AERA Act allowing the complete exemption from landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operator ("**Second Control Period Orders**"):

S. No.	Order No.	Control Period	Name of "major airport"
1.	23/2017-18 dated November 27, 2017	01.04.2016 – 31.03.2021	Netaji Subhash Chandra Bose International Airport, Kolkata
2.	03/2018-19 dated April 16, 2018	01.04.2016 – 31.03.2021	Chennai International Airport, Chennai

While AERA recognised the exemption to be allowed for landing charges in respect of aircraft with a maximum certified capacity of less than 80 seats, it did not rectify the wrongful charging of landing charges as mentioned in the First Control Period Orders.

Landing Charges on International Flights

6. We further wish to submit that even after the Second Control Period Orders, AAI continued to levy landing charges in respect Q400 aircraft (78 seat) at Kolkata and Chennai Airport particularly on the landing of international flights and is still continuing to levy the landing charges against the Second Control Period Orders and MOCA Tariff Order.

Please appreciate that we being a domestic schedule operator of Q400 aircraft with certified capacity of 78 seats are entitled to exemption from landing charges in respect of these aircraft in terms of Second Control Period Orders (for major airport) and MOCA Tariff Order (for non-major airport) irrespective of the fact whether we are operating international flight or domestic flight through these aircraft. However, AAI continued to levy landing charges in respect of such aircraft operated by us particularly on the landing of international flights at Kolkata, Chennai, Madurai, Guwahati and Trivandrum Airport and is still continuing to levy the landing charges against the Second Control Period Order (for major airport) and MOCA Tariff Order (for non-major airport).

Page 3 of 5



Registered Office: Indira Gandhi International Airport, Terminal 1D, New Delhi – 110037, India. Website : www.spicejet.com
CIN: L51909DL1984PLC288239



SpiceJet Limited
 319 Udyog Vihar, Phase-IV,
 Gurugram 122016, Haryana, India.
 Tel: + 91 124 3913939
 Fax: + 91 124 3913844

7. It is humbly submitted that the action of AAI in levying charges on landing of Q400 aircraft (78 seat) being an exempt category of aircraft is illegal and in violation of the Second Control Period Orders (for major airport) and MoCA Tariff Order (for non-major airport) and Section 22 of the AAI Act. The landing charges were wrongfully levied by AAI despite the same being exempt. Admittedly, SpiceJet is a domestic schedule operator and operated Q400 aircraft which are less than 80-seater and is therefore eligible to claim exemption from the payment of landing charges.

A bare perusal of the Second Control Period Orders and MOCA Tariff Order in respect of landing charges would show that following twin conditions are required to be satisfied for claiming exemption from payment of landing charges:

- (a) aircraft with a maximum certified capacity of less than 80 seats; and
- (b) being operated by domestic scheduled operators

None of the said orders makes a distinction between the domestic flights or international flights and therefore the levy of landing charges on international operations by AAI is arbitrary and illegal and against the said tariff orders.

8. It may be pointed out that until January 31, 2021 an amount of Rs.5,03,91,798 towards alleged landing charges on international operations was charged by AAI and the same was paid also by SpiceJet under a mistaken belief that the said amount was payable, whereas no amount was payable in respect of the exempted aircraft. Detailed calculation sheet is attached herewith and marked as **Annexure – 4**. It is submitted that AAI being State instrumentality ought to have been fair and transparent in its dealings and could not have allowed itself to unjustly enrich at the expense of SpiceJet.
9. Needless to say that the act of AAI to levy landing charges as mentioned in above paragraphs is in violation of the orders of AERA and MOCA and is also a punishable offence under Section 38 read with Section 41 of AERA Act.

In the view of the facts and circumstances as mentioned above, you are requested to kindly enquire, investigate and order under Section 14 of the AERA Act regarding wrongful charging of landing charges and consider our claims for following:

- (a) Landing charges of Rs.32,29,99,437 in respect of Q400 aircraft (78 seat) at Kolkata and Chennai Airport during the period of First Control Period Orders of AERA. Accordingly direct AAI to make immediate refund said amount of Rs.32,29,99,437 along with interest @ 18% p.a. (i.e. Rs.29,27,20,067) upto Jan 31, 2021. Detailed sheet is annexed herewith as Annexure – 3.
- (b) Landing charges of Rs.5,03,91,798 on international flights on Q400 aircraft (78 seat) operated by domestic scheduled operator (i.e. SpiceJet) at Kolkata, Chennai, Madurai, Guwahati and Trivandrum Airport. Accordingly, direct AAI to make immediate refund of said amount of Rs.5,03,91,798 along with interest @ 18% p.a. (i.e. Rs.2,83,66,742) upto Jan 31, 2021. Detailed sheet is annexed herewith as Annexure – 4.

Page 4 of 5



Registered Office: Indira Gandhi International Airport, Terminal 1D, New Delhi – 110037, India. Website : www.spicejet.com
 CIN: L51909DL1984PLC288239



SpiceJet Limited
 319 Udyog Vihar, Phase-IV,
 Gurugram 122016, Haryana, India.
 Tel: + 91 124 3913939
 Fax: + 91 124 3913844

We also request you to immediately direct AAI not to levy any landing charges on the landing of international flights operated by Q400 aircraft (78 seat) being operated by SpiceJet (which is a scheduled domestic operator) according to the orders of AERA and AAI Tariff Order.

We thank you in advance for your kind consideration in the matter and look forward to favourable disposal of the matter.

Thanking you,

Yours truly,
 For SpiceJet Limited


 Chandan Sandhu
 Sr. VP (Legal) & Company Secretary



- CC: (i) The Secretary,
 The Ministry of Civil Aviation,
 Rajiv Gandhi Bhawan, Block B,
 Safdarjung Airport, New Delhi – 110003
- (ii) The Chairman,
 Airports Authority of India,
 Rajiv Gandhi Bhawan,
 Safdarjung Airport,
 New Delhi – 110003

Encl.: As above.

Page 5 of 5

Registered Office: Indira Gandhi International Airport, Terminal 1D, New Delhi – 110037, India. Website : www.spicejet.com
 CIN: L51909DL1984PLC288239

Normative approach to compare the cost of "Airside Capacity Enhancement Work"

The ceiling of per sqm expenditure in the matter of normative approach in 2016 was Rs 4700/ Sqm. (Annex-II).

Calculating and bringing the normative cost of 2016 till April 2023 (completion of work) @ 4.20% per annum compounding rate, hence multiplying factor is 1.33375 i.e

$$= 4700 \times (1 + 4.2\%)^7 = 4700 \times 1.33375 = 6268.625/-$$

The quoted amount of Airside Capacity Enhancement work is Rs. 264.99 crore(Annex-I), which include pavement works, RCC drains, RCC culverts, Cable trench, Hume Pipe for cable trench, soil improvement and electrical works etc. The total actual Normative amount for pavement work is calculated Rs. 151.97 Cr. (Annex-V) as against Normative amount of Rs. 170.11 Cr. based on Calculating and bringing the normative cost of 2016 till April 2023 (completion of work) @ 4.20% per annum compounding rate, hence multiplying factor is 1.33375 i.e $4700 \times (1 + 4.2\%)^7 = 4700 \times 1.33375 = 6268.625/-$ (Annex-V). The total cost of work other than pavement work is Rs. 113.02 Cr. (Annex-III).

Sl.No.	Description	Amount Rs.	Area Sqm	Rate per Sqm
1	Cost of Pavement work	Annex-V	Annex-V	
		1519699250.00	271369.00	5600.12
2	Normative Cost for pavement till year 2023			6268.63

Sl.No.	Description	Amount	Remarks
1	Normative cost of Pavement work based on ceiling	1701110497.63	Annex-V
2	Normative cost of Pavement work based on quoted rate	1519699250.00	Annex-V
3	Amount other than Pavement work	1130204148.80	Annex-III
4	Quoted amount of complete work (Award Value)	2649903398.80	Annex-I

Since Rate of Pavement work Per Sqm is less than the Normative Cost in the year 2023 (Completion year), Rate at Kolkata is justified.

Satyabrata
30/09/24
AMM(E-g)

Overall
30/09/24
AMM(E-g)


30/09/24
AMM(E-g)

30.09.2024
30.09.2024
AMM(E-g)

Abstract of Pavment Area AND COMPARISON WITH NORMATIVE COST

Sl.No	Item No	Description	Unit	Quantity	Quoted Rate	Amount	Remarks	Amount	Remarks
1	8	GSBC	Cum	125377.00	3000.00	376131000.00			
2	9	WMM	Cum	62689.00	4150.00	260159350.00			
3	10	DRLC	Cum	33074.00	4850.00	160408900.00			
4	14	PQC	Cum	120500.00	6000.00	723000000.00			
6	11	TOTAL AREA OF PAVEMENT	Sqm	271369.00	4700.00		1.33375	6268.625	1701110497.63
7		COMPARISON	TOTAL QUOTED AMOUNT			1519699250.00	TOTAL NORMATIVE AMOUNT		1701110497.63
The ceiling of per sqm expenditure in the matter of normative approach in 2016 was Rs 4700/ Sqm. (Annex-II). Calculating and bringing the normative cost of 2016 till April 2023 (completion of work) @ 4.20% per annum compounding rate, hence multiplying factor is 1.33375 i.e = 4700 x (1+ 4.2%) ⁷ = 4700 x 1.33375 = 6268.625/-									
Hence rate is Justified.									





Subhabrat
 30/09/2023
 Anil Kumar
 30/09/23
 Anil Kumar
 30/09/23

Annex-V

Area of Pavement

[illegible]

Annex-IV

Name Of Work : Airside Capacity Enhancement of NSCBI Airport, Kolkata. SH :- Extension of F- Taxi track from proposed Bay No. C-13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCBI Airport, Kolkata (Civil & Electrical Works).

Sl. No.	Item No	Amount in Rupees	
1	1	5034600.00	
2	2	6649650.00	
3	3	1778000.00	
4	4	41667360.00	
5	5	5357250.00	
6	6	1142912.00	
7	7	336948375.00	
8	8	127601625.00	
9	9	376131000.00	
10	10	260159350.00	
11	11	160408900.00	
12	12	7598332.00	
13	13	4396370.00	
14	14	9893496.80	
15	15	723000000.00	
16	16	7926720.00	
17	17	129196800.00	
18	18	1413090.00	
19	19	162444789.00	
20	20	868800.00	
21	21	11581600.00	
22	22	3603250.00	
23	23	2298375.00	
24	24	1338000.00	
25	25	1668000.00	
26	26	3175200.00	
27	27	121122000.00	
28	28	15625200.00	
29	29	7071186.00	
30	30	1525200.00	
31	31	5202400.00	
32	32	720000.00	
33	33	1967260.00	
		₹ 2,54,65,15,090.80	A

Cost for Electrical Work as per Agreement

Sl. No	Item No	Amount in Rupees	
1	34	10114000	
2	35	1575000	
3	36	910260	
4	37	455130	
5	38	1126320	
6	39	2937120	
7	40	771780	
8	41	4985700	
9	42	15344820	
10	43	753000	
11	44	301200	
12	45	3070305	
13	46	28275	
14	47	84000	
15	48	215000	
16	49	2810295	
17	50	2227440	
18	51	2207340	
19	52	9320625	
20	53	0	
21	54	0	
22	55	1850000	
23	56	1086750	
24	57	722400	
25	58	1209600	
26	59	189000	
27	60	40950	
28	61	47250	
29	62	53550	
30	63	3012480	
31	64	192768	
32	65	4242000	
33	66	636300	
34	67	267750	
35	68	159000	
36	69	1850000	
37	70	9676100	
38	71	8000	
39	72	1050000	
40	73	30020	
41	74	1050000	
42	75	2625000	
43	76	1080000	
44	77	270000	
45	78	367500	
46	79	3132480	
47	80	3253800	
48	81	5544000	
49	82	504000	
Total of Electrical Ite		₹ 10,33,88,308.00	B

Total of A + B = ₹ 2,64,99,03,398.80

Name Of Work : Airside Capacity Enhancement of NSCBI Airport, Kolkata. SH :- Extension of F- Taxi track from proposed Bay No. C-13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCBI Airport, Kolkata (Civil & Electrical Works).

Annex-II

Sl. No.	Item No	Amount in Rupees	
1	1	5034600.00	
2	2	6649650.00	
3	3	1778000.00	
4	4	41667360.00	
5	5	5357250.00	
6	6	1142912.00	
7	7	336948375.00	
8	8	127601625.00	
9	9	0.00	
10	10	0.00	
11	11	0.00	
12	12	7598332.00	
13	13	4396370.00	
14	14	9893496.80	
15	15	0.00	
16	16	7926720.00	
17	17	129196800.00	
18	18	1413090.00	
19	19	162444789.00	
20	20	868800.00	
21	21	11581600.00	
22	22	3603250.00	
23	23	2298375.00	
24	24	1338000.00	
25	25	1668000.00	
26	26	3175200.00	
27	27	121122000.00	
28	28	15625200.00	
29	29	7071186.00	
30	30	1525200.00	
31	31	5202400.00	
32	32	720000.00	
33	33	1967260.00	
		₹ 1,02,68,15,840.80	A

Cost for Electrical Work as per Agreement

Sl. No	Item No	Amount in Rupees	
1	34	10114000	
2	35	1575000	
3	36	910260	
4	37	455130	
5	38	1126320	
6	39	2937120	
7	40	771780	
8	41	4985700	
9	42	15344820	
10	43	753000	
11	44	301200	
12	45	3070305	
13	46	28275	
14	47	84000	
15	48	215000	
16	49	2810295	
17	50	2227440	
18	51	2207340	
19	52	9320625	
20	53	0	
21	54	0	
22	55	1850000	
23	56	1086750	
24	57	722400	
25	58	1209600	
26	59	189000	
27	60	40950	
28	61	47250	
29	62	53550	
30	63	3012480	
31	64	192768	
32	65	4242000	
33	66	636300	
34	67	267750	
35	68	159000	
36	69	1850000	
37	70	9676100	
38	71	8000	
39	72	1050000	
40	73	30020	
41	74	1050000	
42	75	2625000	
43	76	1080000	
44	77	270000	
45	78	367500	
46	79	3132480	
47	80	3253800	
48	81	5544000	
49	82	504000	
Total of Electrical Ite		₹ 10,33,88,308.00	B

Total of A + B = ₹ 1,13,02,04,148.80



Speed Post

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIAसंख्या: भा.वि.प्रा.नि.मु./पू.क्षे./अभि.(सि.)/केप-एन्हा./कोल/2019. 353
No.: AAI/CHQ/ER/Engg.(C)/Cap-Enh./Kol/2019दिनांक: 22.04.2019
Date: 22.04.2019

सेवा में,

मेसर्स विशाल - एम. वी. आर. कॉन्सोर्टियम
#52 आर. वी. रोड, बसवानागुदी,
बेंगलुरु- 560 004, इंडिया

To,

M/s Vishal - M V R Consortium,
#52, R.V. Road, Basavanagudi,
Bengaluru- 560 004, India

विषय : एन एस सी बी आई हवाई अड्डे, कोलकाता की एयरसाइड क्षमता वृद्धि।
उप शीर्ष : एन एस सी बी आई हवाई अड्डे, कोलकाता के विभिन्न स्थानों पर प्रस्तावित बे संख्या सी - 13 से 19 आर और 19 आर से 19 एल तक एफ-टैक्सी ट्रैक का विस्तार, 03 संख्या आर ई टी, 04 संख्या एप्रन, शोल्डर एवं बॉक्स कल्वर्ट (सिविल और इलेक्ट्रिकल वर्क्स)।

Subject : Airside Capacity Enhancement of NSCBI Airport, Kolkata.
SH - : Extension of F-Taxi Track from proposed Bay No. C - 13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCBI Airport, Kolkata (Civil & Electrical works).

संदर्भ : आपकी खोली गई ई-निविदा (वित्तीय) दिनांक 16.01.2019 (Open TENDER ID: 2018_AAI_16733_1)
Ref: Your e-bid (Financial) opened on 16.01.2019 (Open TENDER ID: 2018_AAI_16733_1)

महोदय,

Dear Sir (S),

- उल्लेखित कार्य हेतु आपकी ई-निविदा के अनुसार आपके द्वारा उद्धृत कुल रु. 264,99,03,398.80 (रुपये दो सौ चौसठ करोड़ नित्यानवे लाख तीन हजार तीन सौ अठानवे एवं अस्सी पैसा मात्र) जी.एस.टी. को छोड़कर, नियत मद दर पर अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से एतद् द्वारा स्वीकृत की जाती है, जो कि निविदा की अनुमानित लागत रु 311,298 करोड़ (जी.एस.टी. को छोड़कर) से 14.88% कम है।

Your e-tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling to Rs. 264,99,03,398.80 (Rupees Two Hundred Sixty Four Crore Ninety Nine Lakh Three Thousand Three Hundred Ninety Eight and Paise Eighty Only) Excluding GST which is 14.88% below the estimated cost put to tender of Rs. 311.298 Crore (Excluding GST).

- उप. महाप्रबंधक (अभि.-सिविल)/संयुक्त महाप्रबंधक (अभि.-सिविल), भारतीय विमानपत्तन प्राधिकरण, एन एस सी बी आई, एयरपोर्ट, कोलकाता इस कार्य के इंजीनियर प्रभारी होंगे। आपसे अनुरोध है कि आप निविदा कथार पर हस्ताक्षर करने एवं उसे पूरा करने हेतु इस पत्र के जारी होने की तिथि से 15 दिनों के भीतर संयुक्त महाप्रबंधक (अभि.-सिविल)-पू.क्षे. भारतीय विमानपत्तन प्राधिकरण, पुरानी आर

For VISHAL

राजीव गान्धी भवन
Rajiv Gandhi Bhawanसफदरजंग हवाई अड्डा नई दिल्ली-110003
Safdarjung Airport, New Delhi-110003

Page 1 of 3

39 5
संख्या : 24632950
Phone: 24632950

डी. बिल्डिंग, सफदरजंग हवाई अड्डा, नई दिल्ली-110003 के कार्यालय में उपस्थित हों। संविदा करार Rs. 100/- (रुपये सौ मात्र) के गैर अदालती (नॉन-जुडिशियल) स्टांप पेपर पर बनाया जाएगा तथा स्टांप पेपर की लागत आपके द्वारा वहन की जाएगी।

D.G.M. (Engg.-Civil)/ Jt. G.M. (Engg.-Civil), Airports Authority of India, NSCBI Airport, Kolkata, shall be the Engineer-in-charge of the work. You are requested to attend the office of the Jt. G.M. (Engg.-Civil)-ER, AAI, CHQ, Old R.D. Building, Safdarjung Airport, New Delhi-110003 within 15 days from the date of issue of this letter to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value of Rs.100/- (Rupees one hundred only) and the cost of the stamp paper shall be borne by you.

3. आपकी निविदा के साथ प्राप्त रु. 3,36,30,000/- (रुपये तीन करोड़ छत्तीस लाख तीस हजार मात्र) की अग्रिम धन राशि को संविदा दस्तावेज के पृष्ठ संख्या जी सी सी 17 के खण्ड-1A के अनुसार प्रतिभूति जमा के रूप में प्रयुक्त तथा समरिवर्तित किया जाएगा। कृपया इस पत्र के जारी होने की तिथि से 10 दिनों के अंदर शेष प्रतिभूति जमा के रूप में रु. 9,88,65,170/- (रुपये नौ करोड़ अठ्ठासी लाख पैंसठ हजार एक सौ सत्तर मात्र) जमा करें, अन्यथा इस राशि की कटौती संविदा दस्तावेज के पृष्ठ संख्या जी सी सी-17 के खण्ड-1A की शर्तों के अनुसार कर ली जाएगी।

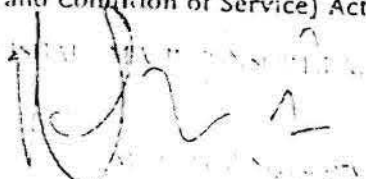
The earnest money (bank guarantee against EMD) amount of Rs. 3,36,30,000/- (Rupees Three Crore Thirty Six Lakh Thirty Thousand Only) received along with your tender will be treated and converted as part of security deposit as per Clause no. 1A on GCC page no. 17 of contract document. Please deposit Rs. 9,88,65,170/- (Rupees Nine Crore Eighty Eight Lakhs Sixty Five Thousand One Hundred Seventy only) towards security deposit within 10 days from the date of issue of this letter failing which, the same will be deducted as per condition of Clause no. 1A at GCC page no. 17 of contract document.

4. निविदा दस्तावेज के जी.सी.सी. पृष्ठ संख्या 16 खंड 1 और जी सी सी पृष्ठ संख्या 133 के शिड्यूल-ई के अनुसार आपको इस पत्र के जारी होने के 30 दिनों के अंदर रु. 13,24,95,170/- (रुपये तेरह करोड़ चौबीस लाख पंचानवे हजार एक सौ सत्तर मात्र) राशि की कार्य निष्पादन गारंटी, भा.वि.प्रा. के समक्ष, संविदा दस्तावेज के पृष्ठ संख्या जी.सी.सी.-111 पर परिशिष्ट-11 में संलग्नित बैंक गारंटी प्रारूप में प्रस्तुत करनी होगी (जो कि किसी राष्ट्रीयकृत/अनुसूचित भारतीय बैंक किन्तु सहकारी या ग्रामीण बैंक नहीं द्वारा जारी होगी)।

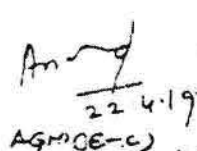
Within 30 days of issue of this letter, you shall also submit to AAI, a Performance Guarantee as per Clause 1 on GCC page no. 16 of tender document and schedule E of GCC page no. 133 for an amount of Rs. 13,24,95,170/- (Rupees Thirteen Crore Twenty Four Lakh Ninety Five Thousand One Hundred Seventy Only) in the form of a Bank Guarantee (from a Nationalized/Scheduled Indian bank but not from any Co-operative or Gramin Bank) on the proforma appended at Appendix-XI on GCC page no. 111 of contract document.

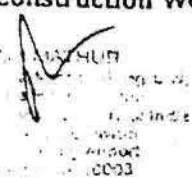
5. आप से अनुरोध है कि आप संविदा श्रम (विनियम एवं उन्मूलन) अधिनियम 1970 तथा संविदा श्रम (विनियम एवं उन्मूलन) केन्द्रीय नियम 1971, बाल श्रम (निषेध और विनियम) अधिनियम 1986, निर्माण श्रमिकों (रोजगार और सेवा की शर्त का विनियमन) अधिनियम 1996, भवन और अन्य निर्माण श्रमिक कल्याण उपकरण अधिनियम 1996 जैसा की निविदा दस्तावेज के खण्ड 19 जी सी सी पृष्ठ संख्या 51 में निर्दिष्ट है एवं केन्द्रीय व राज्य सरकारों के तदसंबंधी नियमों का अनुपालन करें।

You are requested to comply with the provision of contract labour (Regulation & Abolition) Act 1970 and contract labour (Regulation & Abolition) Central Rules 1971, Child Labour (Prohibition and Regulation) Act 1986, Construction Workers (Regulation of Employment and Condition of Service) Act 1996, Building and other Construction Workers Welfare Cess



396


22.4.19
AGM/CE-C


22.4.19
AGM/CE-C

Act 1996 as specified in Clause 19 on GCC page no. 51 of Tender and rules of Central and State Government.

6. आपको उप महाप्रबंधक (अभि.-सिविल) / संयुक्त महाप्रबंधक (अभि.-सिविल), भारतीय विमानपत्तन प्राधिकरण, एन. एस. सी. बी. आई. एयरपोर्ट, कोलकाता से तत्काल संपर्क करने के लिए निर्देशित किया जाता है, जो कि आपको कार्यस्थल (साइट) सौंपने की व्यवस्था करेंगे।

You are also directed to contact D.G.M.(Engg.-Civil)/ Jt. G.M. (Engg.-Civil), Airports Authority of India, NSCBI Airport, Kolkata, immediately who will arrange to hand over the site to you.

7. कृपया नोट करें कि कार्य पूरा करने के लिए आपको 30 (तीस) महीने (मानसून के 02 सत्र के लिए वर्षा के 08 माह मानते हुए) का समय प्रदान किया जाता है जो कि इस पत्र के जारी होने की तिथि के बाद से 10वें दिन से प्रारम्भ माना जाएगा।

Please note that the time allowed for carrying out the work shall be 30 (Thirty) Months [including 08 month(s) considered for rain of 02 monsoon season(s)] and same shall be reckoned from the 10th day after the date of issue of this letter.

8. ई-निविदा प्रक्रिया के दौरान उठाए गए सभी प्रश्नों, स्पष्टीकरणों इत्यादि तथा उनका दिया गया उत्तर व सभी शुद्धिपत्र भी अनुबंध का भाग होगा।

All queries, clarifications etc. raised during e-tendering process and replies there of including all Corrigendum issued shall also form part of the agreement.

9. संविदा के संबंध में भविष्य में किसी भी प्रकार का पत्र व्यवहार सामान्य रूप से इंजीनियर प्रभारी के नाम से किया जाएगा।

Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-charge.

10. कृपया पत्र की पावती भेजें तथा साथ में संलग्न इस पत्र की दूसरी प्रति पर स्वीकारोक्ति के रूप विधिवत् हस्ताक्षर करके, अधोहस्ताक्षरी को वापस भेजें।

Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

11. यदि कोई विसंगति पाई जाती है तो अंग्रेजी भाषा ही मान्य होगी।

In case of any discrepancy, English version will be taken as correct.

भवदीय
Yours faithfully

Am
22.04.2019

(ए. एस. त्रिपाठी)

(A. S. Tripathi)

सहायक महाप्रबंधक (अभि.-सिविल)

AGM (Engg.-Civil)

के लिए एवं तरफ से अध्यक्ष

For and on behalf of the Chairman

भारतीय विमानपत्तन प्राधिकरण

Airports Authority of India

For VISUAL M.V.E. CONSORTIUM

Authorised Signatory

Item Rate BoQ

Validate Print Help

Tender Inviting Authority: AIRPORT AUTHORITY OF INDIA

Name of the work: Airside Capacity Enhancement of NSCB Airport, Kolkata.

SH:- Extension of F-Taxi Track from proposed Bay No. C-13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCB Airport, Kolkata (Civil & Electrical works)

Contract No: AAUCHOENGGER/KOLF-Taxi

Bidder Name: VISUAL - MVR CONSORTIUM

Sl. No.	Item Description	PRICE SCHEDULE					TEXT #
		NUMBER #	Quantity	Units	NUMBER #	BASIC RATE In Figures Excluding GST To be entered by the Bidder Rs. P	
							TOTAL AMOUNT
							TOTAL AMOUNT In Words
1	2	3	4	5	6	7	
1	Item description same as SOQ Item No. 1a)	11188.00	cum	✓	450.00	5034600.00	INR Fifty Lakh Thirty Four Thousand Six Hundred Only
2	Item description same as SOQ Item No. 1b)	14777.00	cum	✓	450.00	6649650.00	INR Sixty Six Lakh Forty Nine Thousand Six Hundred & Fifty Only
3	Item description same as SOQ Item No. 2	25400.00	sqm	✓	70.00	1778000.00	INR Seventeen Lakh Seventy Eight Thousand Only
4	Item description same as SOQ Item No. 3	595248.00	cum	✓	70.00	41667360.00	INR Four Crore Sixteen Lakh Sixty Seven Thousand Three Hundred & Sixty Only
5	Item description same as SOQ Item No. 4	119050.00	cum	✓	45.00	5357250.00	INR Fifty Three Lakh Fifty Seven Thousand Two Hundred & Fifty Only
6	Item description same as SOQ Item No. 5	285728.00	sqm	✓	4.00	1142912.00	INR Eleven Lakh Forty Two Thousand Nine Hundred & Twelve Only
7	Item description same as SOQ Item No. 6	236455.00	cum	✓	1425.00	336948375.00	INR Thirty Three Crore Sixty Nine Lakh Forty Eight Thousand Three Hundred & Seventy Five Only
8	Item description same as SOQ Item No. 7	89545.00	cum	✓	1425.00	127601625.00	INR Twelve Crore Seventy Six Lakh One Thousand Six Hundred & Twenty Five Only
9	Item description same as SOQ Item No. 8	125377.00	cum	✓	3000.00	376131000.00	INR Thirty Seven Crore Sixty One Lakh Thirty One Thousand Only
10	Item description same as SOQ Item No. 9	67683.00	cum	✓	4150.00	280159350.00	INR Twenty Six Crore One Lakh Fifty Nine Thousand Three Hundred & Fifty Only
11	Item description same as SOQ Item No. 10	33074.00	cum	✓	4850.00	160408900.00	INR Sixteen Crore Four Lakh Eight Thousand Nine Hundred Only
12	Item description same as SOQ Item No. 11	211369.00	sqm	✓	28.00	7598332.00	INR Seventy Five Lakh Ninety Eight Thousand Three Hundred & Thirty Two Only
13	Item description same as SOQ Item No. 12	4707.00	sqm	✓	935.00	4396370.00	INR Forty Three Lakh Ninety Six Thousand Three Hundred & Seventy Only
14	Item description same as SOQ Item No. 13	17366871.00	cum	✓	0.80	9893496.80	INR Ninety Eight Lakh Ninety Three Thousand Four Hundred & Ninety Six and Paise Eighty Only
15	Item description same as SOQ Item No. 14	121500.00	cum	✓	6000.00	723000000.00	INR Seventy Two Crore Thirty Lakh Only

Authorised Signatory

399

Page 6

Item Rate BoQ

Validate Print Help

Tender Inviting Authority: AIRPORT AUTHORITY OF INDIA

Name of the work : Airside Capacity Enhancement of NSCB Airport, Kolkata.

SH: Extension of F-Taxi Track from proposed Bay No C-13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCB Airport, Kolkata (Civil & Electrical works)

Contract No: AA/CHQ/ENG/ER/KOLUF-Taxi

Bidder Name: VISHAL - MVR CONSORTIUM

PRICE SCHEDULE

Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures Excluding GST To be entered by the Bidder Rs. P	TOTAL AMOUNT	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
16	Item description same as SOQ Item No. 15	24771.00	sqm	320.00	7926720.00	INR Seventy Nine Lakh Twenty Six Thousand Seven Hundred & Twenty Only
17	Item description same as SOQ Item No. 16	20187.00	cum	6400.00	129196800.00	INR Twelve Crore Ninety One Lakh Ninety Six Thousand Eight Hundred Only
18	Item description same as SOQ Item No. 17	20187.00	cum	70.00	1413090.00	INR Fourteen Lakh Thirteen Thousand & Ninety Only
19	Item description same as SOQ Item No. 18a)	2624310.00	kg	61.90	162444789.00	INR Sixteen Crore Twenty Four Lakh Forty Four Thousand Seven Hundred & Eighty Nine Only
20	Item description same as SOQ Item No. 19a)	2896.00	sqm	300.00	868800.00	INR Eight Lakh Sixty Eight Thousand Eight Hundred Only
21	Item description same as SOQ Item No. 19b)	28954.00	sqm	400.00	11581600.00	INR One Crore Fifteen Lakh Eighty One Thousand Six Hundred Only
22	Item description same as SOQ Item No. 19c)	10795.00	sqm	350.00	3603250.00	INR Thirty Six Lakh Three Thousand Two Hundred & Fifty Only
23	Item description same as SOQ Item No. 20a)	18387.00	sqm	125.00	2298375.00	INR Twenty Two Lakh Ninety Eight Thousand Three Hundred & Seventy Five Only
24	Item description same as SOQ Item No. 21a)	600.00	metre	2230.00	1338000.00	INR Thirteen Lakh Thirty Eight Thousand Only
25	Item description same as SOQ Item No. 21b)	600.00	metre	2760.00	1668000.00	INR Sixteen Lakh Sixty Eight Thousand Only
26	Item description same as SOQ Item No. 22a)	441.00	cum	7200.00	3175200.00	INR Thirty One Lakh Seventy Five Thousand Two Hundred Only
27	Item description same as SOQ Item No. 22b)	22430.00	cum	5480.00	121122000.00	INR Twelve Crore Eleven Lakh Twenty Two Thousand Only
28	Item description same as SOQ Item No. 22c)	2694.00	cum	5800.00	15625200.00	INR One Crore Fifty Six Lakh Twenty Five Thousand Two Hundred Only
29	Item description same as SOQ Item No. 23	81778.00	kg	87.00	7071186.00	INR Seventy Lakh Seventy One Thousand One Hundred & Eighty Six Only

Item Rate BoQ

Validate Print Help

Tendering Authority: AIRPORT AUTHORITY OF INDIA

Name of the Work: Airside Capacity Enhancement of NSCB Airport, Kolkata.

SR - Extension of F-Taxi Track from proposed Bay No. C-13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCB Airport, Kolkata.

(Civil & Electrical works)

Contract No. ANCHOENGGER/KOL/F-Taxi

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

CONSORTIUM

Item Rate BoQ

Validate Print Help

Tender Inviting Authority: AIRPORT AUTHORITY OF INDIA

Name of the Work: Airside Capacity Enhancement of NSCB Airport, Kolkata.
 SH, Extension of F-Taxi Track from proposed Bay No. C-13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCB Airport, Kolkata
 (Civil & Electrical works)

Contract No: AA/ICHO/ENG/ER/KOL/F-Taxi

Bidder Name: MSHAL - M V R CONSORTIUM

PRICE SCHEDULE

Sl. No.	Item Description	Quantity	Units	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
1	2	3	4	5	6	7	8	9
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures Excluding GST To be entered by the Bidder Rs. p	TOTAL AMOUNT	TOTAL AMOUNT In Words		
46	Item description same as SOQ Item No. 40a)	3.00 each		5655.00	28275.00	INR Twenty Eight Thousand Two Hundred 5		
47	Item description same as SOQ Item No. 40b)	10.00 each		8400.00	84000.00	INR Eighty Four Thousand Only		
48	Item description same as SOQ Item No. 40c)	25.00 each		8600.00	215000.00	INR Two Lakh Fifteen Thousand Only		
49	Item description same as SOQ Item No. 41a)	3.00 each		936765.00	2810295.00	INR Twenty Eight Lakh Ten Thousand Two Hundred & Ninety Five Only		
50	Item description same as SOQ Item No. 41b)	3.00 each		742480.00	2227440.00	INR Twenty Two Lakh Twenty Seven Thousand Four Hundred & Forty Only		
51	Item description same as SOQ Item No. 41c)	3.00 each		735780.00	2207340.00	INR Twenty Two Lakh Seven Thousand Three Hundred & Forty Only		
52	Item description same as SOQ Item No. 41d)	15.00 each		621375.00	9320625.00	INR Ninety Three Lakh Twenty Thousand Six Hundred & Twenty Five Only		
53	Item description same as SOQ Item No. 42	543.00 each		0.00	0.00	INR Zero Only		
54	Item description same as SOQ Item No. 43	24.00 each		0.00	0.00	INR Zero Only		
55	Item description same as SOQ Item No. 44a)	1000.00 set		1850000.00	1850000.00	INR Eighteen Lakh Fifty Thousand Only		
56	Item description same as SOQ Item No. 45a)	115.00 job		1086750.00	1086750.00	INR Ten Lakh Eighty Six Thousand Seven Hundred & Fifty Only		
57	Item description same as SOQ Item No. 45b)	86.00 job		8400.00	722400.00	INR Seven Lakh Twenty Two Thousand Four Hundred Only		
58	Item description same as SOQ Item No. 46a)	64.00 job		14980.00	1209600.00	INR Twelve Lakh Nine Thousand Six Hundred Only		
59	Item description same as SOQ Item No. 47a)	15.00 each		12600.00	189000.00	INR One Lakh Eighty Nine Thousand Only		
60	Item description same as SOQ Item No. 47b)	3.00 each		15690.00	46950.00	INR Forty Thousand Nine Hundred & Fifty Only		
61	Item description same as SOQ Item No. 47c)	3.00 each		15750.00	47250.00	INR Forty Seven Thousand Two Hundred & Fifty Only		
62	Item description same as SOQ Item No. 47d)	3.00 each		17850.00	53550.00	INR Fifty Three Thousand Five Hundred & Fifty Only		
63	Item description same as SOQ Item No. 48	94140.00 mtr		32.00	3012480.00	INR Thirty Lakh Twelve Thousand Four Hundred & Eighty Only		

[Validate](#) [Print](#) [Help](#)

Tender Inviting Authority: AIRPORT AUTHORITY OF INDIA

~~Name of the Bank~~ - Airside Capacity Enhancement of NSCB Airport, Kolkata.

Names of the work—Airside Capacity Enhancement of NSCBI Airport, Kolkata.
 S.S.—Extension of F-Taxi Track from proposed Bay No. C-13 to 19R & from 19R to 19L. Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCBI Airport, Kolkata.
 Civil & Electrical works)

Contract No: CAALJHQFENG/ERKOLU-Taxi

PRICE SCHEDULE						
Sl No.	Item Description	Quantity	Unit	BASIC RATE In Figures Excluding GST To be entered by the Bidder Rs. p	TOTAL AMOUNT	TOTAL AMOUNT In Words
64	Item description same as SOQ Item No. 49	6024.00 mtr ✓		32.00	192768.00	INR One Lakh Ninety Two Thousand Seven Hundred & Sixty Eight Only
65	Item description same as SOQ Item No. 50a)	505.00 each ✓		8400.00	4242000.00	INR Forty Two Lakh Forty Two Thousand Only
66	Item description same as SOQ Item No. 51	1010.00 each ✓		630.00	636300.00	INR Six Lakh Thirty Six Thousand Three Hundred Only
67	Item description same as SOQ Item No. 52	30.00 each ✓		8925.00	267750.00	INR Two Lakh Sixty Seven Thousand Seven Hundred & Fifty Only
68	Item description same as SOQ Item No. 53	600.00 mtr ✓		285.00	159000.00	INR One Lakh Fifty Nine Thousand Only
69	Item description same as SOQ Item No. 54a)	5000.00 mtr ✓		370.00	1850000.00	INR Eighteen Lakh Fifty Thousand Only
70	Item description same as SOQ Item No. 55a)	47070.00 mtr ✓		230.00	9676100.00	INR Ninety Six Lakh Seventy Six Thousand One Hundred Only
71	Item description same as SOQ Item No. 56	50.00 each ✓		160.00	8000.00	INR Eight Thousand Only
72	Item description same as SOQ Item No. 57	40.00 each ✓		26250.00	1050000.00	INR Ten Lakh Fifty Thousand Only
73	Item description same as SOQ Item No. 58	38.00 job ✓		790.00	30020.00	INR Thirty Thousand & Twenty Only
74	Item description same as SOQ Item No. 59	5000.00 mtr ✓		210.00	1050000.00	INR Ten Lakh Fifty Thousand Only
75	Item description same as SOQ Item No. 60	5000.00 mtr ✓		525.00	2625000.00	INR Twenty Six Lakh Twenty Five Thousand Only
76	Item description same as SOQ Item No. 61	45.00 job ✓		24000.00	1080000.00	INR Ten Lakh Eighty Thousand Only
77	Item description same as SOQ Item No. 62	30.00 cum ✓		9000.00	270000.00	INR Two Lakh Seventy Thousand Only
78	Item description same as SOQ Item No. 63	1.00 job ✓		367500.00	367500.00	INR Three Lakh Sixty Seven Thousand Five Hundred Only
79	Item description same as SOQ Item No. 64a)	6024.00 mtr ✓		520.00	3132480.00	INR Thirty One Lakh Thirty Two Thousand Four Hundred & Eighty Only
80	Item description same as SOQ Item No. 65a)	4785.00 mtr ✓		680.00	3253800.00	INR Thirty Two Lakh Fifty Three Thousand Eight Hundred Only
81	Item description same as SOQ Item No. 66	176.00 job ✓		31500.00	5544000.00	INR Fifty Five Lakh Forty Four Thousand Only
82	Item description same as SOQ Item No. 67	16.00 job ✓		31500.00	504000.00	INR Five Lakh Four Thousand Only

Item Rate BoQ

Validate Print Help

Tender Inviting Authority: AIRPORT AUTHORITY OF INDIA

Name of the work: Airside Capacity Enhancement of NSCB Airport, Kolkata.
 SH - Extension of F-Taxi Track from proposed Bay No. C-13 to 19R & from 19R to 19L, Construction of 03 nos. RET's, 04 nos. Apron, Shoulders and Box Culvert at different locations of NSCB Airport, Kolkata
 (Civil & Electrical works)

Contract No: AAUHQJENGGER/KOL/F-Taxi

Bidder: VISHAL M.V.R. CONSORTIUM

Name: /

PRICE SCHEDULE

Sl. No.	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	TEXT #
	Quantity	Units	BASIC RATE In Figures Excluding GST To be entered by the Bidder Rs. P	TOTAL AMOUNT	TOTAL AMOUNT	TOTAL AMOUNT in Words		
1	3	4	5	6	7			
Total in Figures				2649903398.80		INR Two Hundred Sixty Four Crore Ninety Nine Lakh Three Thousand Three Hundred & Ninety Eight and Paise Eighty Only		
Quoted Rate in Words	INR Two Hundred Sixty Four Crore Ninety Nine Lakh Three Thousand Three Hundred & Ninety Eight							

FOR MR. HARISH KANTHUR
 Director, Airport Authority of India (Engrg. Cell)
 Airport Authority of India, New Delhi

Sl No	Particulars of Items	Quantity	unit	
8	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge. (a) With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30.	125377.00	cum	3,000.00
9	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	62689.00	cum	4,150.00
10	Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in-Charge.	53074.00	cum	4,850.00
11	Providing and laying (1st quality) polythene sheet (separation membrane) 200 microns thick on the base course with overlaps of not less than 50mm longitudinally and 75mm transversely complete as per directions and satisfaction of Engineer-in-Charge.	271369.00	sqm	28.00
12	Providing and laying in position for expansion joint, 25mm thick pre-cut synthetic joint filler board of approved make conforming to IS: 1838 (part 3)-2011, 45 mm from top (to be removed at the time of filling of polysulphide sealant), complete as per particular specifications and directions of Engineer-in-Charge. (Note: Mode of measurement shall be length of joint multiplied by depth of filler board including precut portion).	4702.00	sqm	935.00

For VISHAL M V & CONSORTIUM

Authorised Signatory

337

C-NIL...O-NIL

BOQ 2

SI No	Particulars of Items	Quantity	unit
13	Providing and laying in position polysulphide sealant of approved make conforming to BS-5212-1990 or IS : 11433-1995, in expansion / construction / dummy joints including rounding off edges, applying 2 coats of approved primer compatible with the brand of polysulphide and preparing the surface and applying masking tape along the edge of joint to prevent accidental spillage of sealant on top surface and to give neat finish to the sealant and removing the masking tape after application of sealant etc. complete as per direction of Engineer-in-Charge & particular specifications. [Note : for purpose of payment, quantity (Length X Width X Depth) of Polysulphide sealant only will be measured].	12366871.00	cum
	i) Expansion joints of size 25 mm wide and 10 mm deep over 30mm dia closed-cell Polyethylene foam back-up rod, as per manufacturer's specifications and sketch at Appendix-'A'.		
	ii) Construction joints of size 10 mm wide and 10 mm deep over 12 mm dia closed-cell Polyethylene foam back-up rod, as per manufacturer's specifications and sketch at Appendix-'A'.		
	iii) Dummy joints of size 10 mm wide and 10 mm deep over 12 mm dia closed-cell Polyethylene foam back-up rod, as per manufacturer's specifications and sketch at Appendix-'A'.		
14	Providing and laying Pavement Quality Concrete(PQC) produced in a batching plant having a Characteristic Flexural Strength i.e. minimum flexural strength of 4.1 Mpa at 28 days using 350 Kg of Portland Pozzolana Cement, fine aggregate, graded stone aggregates of 40 mm nominal size in appropriate proportion as per specification and job mix formula, laid in panels as per drawing / design as approved by the Engineer-In-Charge, mechanically vibrated, using needle and surface vibrators, including steel form work with sturdy M.S. channel sections using manual method including making necessary provision for expansion joint, curing, etc. complete as per direction of Engineer -in-Charge and particular specifications. The item for execution shall also include the following operations: i) Mechanically cutting dummy joints 3 mm wide X 1/3rd thickness of slab which is subsequently widened to 10 mm for the top 25 mm depth and construction joints 10 mm wide X 25 mm deep as per specification. ii) Filling polysulphide sealant in dummy, construction and expansion joints including providing close-cell Polyethylene foam back-up rod, and painting side of joints with polysulphide primer, etc. complete (to be paid separately under relevant item).	120500.00	cum

0.80

6,000.00

[Signature]
 Authorised Signatory

[Signature]
 Authorised Signatory

**Normative approach to compare the cost of
" Resurfacing of Secondary Runway 19R/O1L at NSCB Airport Kolkata"**


The ceiling of per sqm expenditure in the matter of normative approach in 2016 was Rs 4700/ Sqm. (Annex-II). Calculating and bringing the normative cost of 2016 till 2021 (completion of work) @ 4.20% per annum compounding rate, hence multiplying factor is 1.228 i.e
 $= 4700 \times (1 + 4.2\%)^5 = 4700 \times 1.228 = 5771.60$

The awarded amount of Resurfacing of Secondary Runway 19R/O1L at NSCB Airport Kolkata Work is Rs. 37,33,95,171.00 (Annexure I) which include pavement works, cold milling of bituminous pavement and Electrical works, etc. The total pavement area is 170509 Sqm. (Annexure-III).


Sl.No.	Description	Amount Rs.	Area Sqm	Rate per Sqm
1	Cost of Pavement work excluding GST	286588897.46	170509.00	1680.78
2	Normative Cost for pavement till year 2021			5771.60

Since Rate of Pavement work per sqm is less than the normative cost in the year 2021 (Completion year), Rate at Kolkata is justified.

Total abstract of cost of the project			
Sl.no.	Description	Amount	Remarks
1	Pavement work excluding GST	286588897.46	Annexure IV
	Pavement work including GST	338174899.00	
2	Amount of civil works other than Pavement work (cold milling of bituminous pavement and Electrical works etc.)= Rs. 35220272.00	35220272.00	
	Total cost of project = Rs.	373395171.00	


30.09.21
mgm (E-C)


30.09.21
AGM (E-C)


30.09.21
ASm (E-C)

N/W:- Resurfacing of Secondary Runway 19R/O1L at NSCBI Airport Kolkata.

Calculation of Rate

Sl.No	Descriptions	Quoted Amount (Rs.)
1	Total cost of pavement area	
	Item no: 02- Tack coat- 0.5 kg/sqm	14787709.00
	Item no: 03- DBM	183002085.00
	Item no: 04- SDAC	81074475.00
	Item no: 05- DAC	59310630.00
	Total including GST @18% (Rs.) =	338174899.00
	Total excluding GST @18% (Rs.) = (A)	286588897.46
2	Total area of pavement (Taxiway area) = (B)	170509.00
	TOTAL Cost of pavement per sqm excluding GST = (A/B)	1680.78

30.09.21
MPT(E-C)

30/9/21
BGM(E-C)

30/09/21
AMM(E-C)

Annexure-III					
N/W:- Resurfacing of Secondary Runway 19R/O1L at NSCBI Airport Kolkata					
<u>Area calculation</u>					
S/no.	Location	Length	Width	Area	Unit
1	Secondary Runway	2393.50	60.00	143610.00	sqm
2	A-Taxi RHS	137.00	50.78	6956.86	sqm
3	A-Taxi LHS	147.00	42.31	6219.57	sqm
4	B-Taxi	116.00	44.00	5104.00	sqm
5	C-Taxi LHS	54.00	41.21	2225.34	sqm
6	C-Taxi RHS	135.00	33.94	4581.90	sqm
7	D-Taxi	27.00	67.07	1810.89	sqm
Total=				170509.00	Sqm


 30/09/21
 mg (E-C)


 30/9/21
 Agm (E-C)


 30/09/21
 Agm (E-C)



Annexure - 1

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

Speed Post

No.: AAI/CHQ/Engg(C)/ER/Kol/Sec-Rwy/2018/263

Date: 07.05.2018

To,
M/s SBG Infracon Pvt. Ltd.,
WZ-3, Kailash Park,
(Opp. Kirti Nagar, Punjab National Bank)
New Delhi-110015.

Sub: Resurfacing of Secondary Runway 19R/01L at NSCBI Airport Kolkata.

Ref: Your e-bid opened on 27.03.2018.
(OPEN TENDER ID: 2018_AAI_7584_1)

Dear Sir (S),

1. Your tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling to Rs. 37,33,95,171.00 (Rupees Thirty Seven Crore Thirty Three Lakh Ninety Five Thousand One Hundred Seventy One Only) inclusive of all taxes and GST which is 3.61 % above the estimated cost put to tender of Rs. 3603.96 Lacs.
2. D.G.M. / Jt. G.M. (Engg.-C), Airports Authority of India, NSCBI Airport, Kolkata, shall be the Engineer-in-charge of the work. You are requested to attend the office of the Jt. G.M. (Engg.-C), AAI, Old R.D. Building, Safdarjung Airport, New Delhi by 18.05.2018 to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value of Rs.100/- (Rupees one hundred only) and the cost of the stamp paper shall be borne by you.
3. The earnest money (bank guarantee against EMD) amounting Rs. 61,03,970/- (Rupees Sixty One Lakh Three Thousand Nine Hundred Seventy Only) received along with your tender will be treated and converted as part of security deposit as per GCC clause no. 1A on page no.16 of contract document. Please deposit Rs. 1,25,65,790/- (Rupees One Crores Twenty Five Lakhs Sixty Five Thousand Seven Hundred Ninety only) towards security deposit within 10 days from the date of issue of this letter failing which, the same will be deducted as per condition of Clause no. 1A at page no.16 of the contract document.
4. Within 30 days of issue of acceptance letter, you shall submit to AAI, a performance Guarantee as per GCC Clause 1 on page. 15 of tender document and schedule E of GCC Page. 130 for an amount of Rs. 1,86,69,760/- (Rupees One Crores Eighty Six Lakhs Sixty Nine Thousand Seven Hundred Sixty Only) in the form of a Bank Guarantee (from a Nationalized/Scheduled Indian bank but not from any Co-operative or Gramin Bank) on the proforma appended at Appendix-XI on GCC page. 108 of contract document.

आदर्श कुमार / ADARSH KUMAR

संयोजक अभियंता (सिविल) / Jt. General Manager (Engg.-Civil)
भारतीय विमानपत्तन प्राधिकरण / Airports Authority of India
राजीव गांधी भवन / Rajiv Gandhi Bhawan
सफ़दरजंग हवाई अड्डा / Safdarjung Airport
नई दिल्ली-110003 / New Delhi-110003

FOR SBG INFRACON PRIVATE LIMITED

Jai Kishan
Director


राजीव गांधी भवन
Rajiv Gandhi Bhawan

सफ़दरजंग हवाई अड्डा नई दिल्ली-110003
Safdarjung Airport, New Delhi-110003

दूरभाष : 24632950
Phone: 24632950

5. You are requested to comply with the provision of contract labour (Regulation & Abolition) Act of 1970 and contract labour (Regulation & Abolition) Central Rules 1971 Child Labour (Prohibition & Regulation) Act 1986, Construction Workers (Regulation of Employment and Condition of Service) Act 1996, Building and other construction Workers Welfare Cess Act 1996 as specified in Clause 19 on page no. 49 of GCC of tender and rules of Central and State Government.
6. You are also directed to contact DGM/ JGM (Engg.-C), AAI, Kolkata immediately who will arrange to hand over the site to you.
7. Please note that the time allowed for carrying out the work shall be 14 (Fourteen Months) including 4 (Four) months considered for rains and same shall be reckoned from the 10th day after issue of this letter.
8. This award letter shall form part of Agreement.
9. Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-Charge.
10. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

Yours faithfully

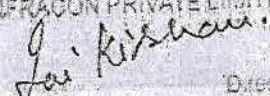

(Adarsh Kumar)
Jt. G.M. Engg (C)

For and on behalf of Chairman,
Airports Authority of India

आदर्श कुमार / ADARSH KUMAR
जनरल मैनेजर (जी.एम. एंग्ज.-सी) / Jt. General Manager (Engg.-C)
राजीव गांधी अंतराष्ट्रीय विमानतट / Airports Authority of India
राजीव गांधी अड्डा / Rajiv Gandhi Shawa
सायदपुरा रोड / Sardarjung Airport
नई दिल्ली-110002 / New Delhi-110002

302

For SSG INFRACON PRIVATE LIMITED


Jai Kishan

Director

Tender Inviting Authority: AIRPORT AUTHORITY OF INDIA

Contract No: AA/CHQ/Enon/EP/IC/05-06-07

Contract No: AA/CHQ/Engg/ER/Kol/Sec-Rwy

Bladder	M/s. SBG Infracon Pvt. Ltd.
---------	-----------------------------

आदर्श कुमार / ADARSH KUMAR
 (अध्यक्ष) अध्यक्ष (ई. डि. डि.) / J. General Manager (Engg.-Civil)
 भारतीय विमानतंत्र संस्थान / Indian Institute of Space Technology
 बंगलूरु / Bangalore
 भारत / India

FOR SBG INFRA CON PRIVATE LIMITED

53
52
51

**Normative approach to compare the cost of
" Reconstruction of B taxi and E taxi at NSCBI Airport kolkata"**

The ceiling of per sqm expenditure in the matter of normative approach in 2016 was Rs 4700/ Sqm. (Annex-II).

Calculating and bringing the normative cost of 2016 till 2022 (completion of work) @ 4.20% per annum compounding rate, hence multiplying factor is 1.2799 i.e

$$= 4700 \times (1 + 4.2\%)^6 = 4700 \times 1.2799 = 6015.53$$


The awarded amount of Reconstruction of B taxi and E taxi at NSCBI Airport kolkata work is Rs. 5,55,74,180.00 (Annexure I) which include pavement works, joint filling and Electrical works, etc. The total pavement area is 12330 Sqm. (Annexure-III).

Sl.No.	Description	Amount Rs.	Area Sqm	Rate per Sqm
1	Cost of Pavement work	42137500.00	12330.00	3417.48
2	Normative Cost for pavement till year 2022			6015.53

Since Rate of Pavement work per sqm is less than the normative cost in the year 2022 (Completion year), Rate at Kolkata is justified.

Total abstract of cost of the project

Sl.no.	Description	Amount	Remarks
1	Pavement work	42137500.00	Annexure IV
2	Amount of civil works other than Pavement work (RCC drains and Joint filling etc.)= Rs. 13436680.00	13436680.00	
	Total cost of project = Rs.	55574180.00	


30.09.21
MGR(E-C)


30/9/21
AGM(E)


30.09.2021
St. AM (E)

N/W:- Reconstruction of B taxi and E taxi at NSCBI Airport kolkata

Calculation of Rate

Sl.No	Descriptions	Quoted Amount (Rs.)
1	Total cost of pavement area	
	Item no: 07 - Sand Filling	3334500.00
	Item no: 08 - CC 1:3:6	10803000.00
	Item no: 09 - DRLC	5928000.00
	Item no: 11 - PQC	22072000.00
	Total (Rs.) = (A)	42137500.00
2	Total area of pavement (Taxiway area) = (B)	12330.00
	TOTAL Cost of pavement per sqm excluding GST = (A/B)	3417.48

30.09.21
may (E-C)

30.09.21
may (E-C)

Name of Work :- Reconstruction of B taxi and E taxi at NSCBI Airport kolkata

Area calculation**B taxi**


Main taxi	1.00	95.00	23.00	2185.00	
Fillet	3.00	15.00	15.00	675.00	
	0.50	70.00	30.00	1050.00	
	2.00	210.00	10.50	4410.00	
				8320.00	sqm

E taxi

Main taxi	1.00	70.00	18.00	1260.00	
Fillet	2.00	25.00	25.00	1250.00	
	2.00	75.00	10.00	1500.00	
				4010.00	sqm

Total area of Main taxi B & E

12330.00 **sqm**


 30.09.21
 mgp(E-C)



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA
विमानपत्तन अनुरक्षण मण्डल (सि०) -I
AIRPORT MAINTENANCE DIVISION-I
ने सु च बोस अ विमानपत्तन, कोलकाता-52
N.S.C.B.I AIRPORT, KOL-52

No. AAI/Kol/Engg(C)/B & E Taxi/ 427

Date : 28/12/2018

To,
M/s. PABSCON,
P-209, Block - B,
Lake Town,
Kolkata - 700089

कार्य का नाम: - एनएससीबीआई हवाई अड्डे, कोलकाता में बी-टैक्सी और ई-टैक्सी का पुनर्निर्माण

Name of Work:- Reconstruction of B-taxi and E-taxi at NSCBI Airport, Kolkata

Ref. :- Your e-tender no. 2018_AAI_14143 opened on dated 19/09/2018

Dear Sir(s),

1. ऊपर उल्लिखित कार्य के लिए आपका टेंडर, एअरपोर्ट अथॉरिटी ऑफ इंडिया की ओर से स्वीकार किया जाता है, आपके द्वारा रु। कुल रु। 5,55,74,180/- (रुपए पांच करोड़ पचपन लाख चौहत्तर हजार एक सौ अस्सी केवल) जीएसटी को छोड़कर, जो अनुमानित लागत रु। से 37.61 % कम है 8,90,74,000/- जीएसटी को छोड़कर
1. Your tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rate quoted by you totaling to Rs. 5,55,74,180/- (Rupees Five Crore Fifty Five Lakh Seventy Four Thousand One Hundred Eighty only) excluding GST which is 37.61% below the Estimated cost put to tender of Rs. 8,90,74,000/- excluding GST.
2. संयुक्त महाप्रबंधक इंजीनियरिंग (सी), एएआई, नेताजी सुभाष चंद्र बोस अंतरराष्ट्रीय हवाई अड्डे, काम के अभियंता प्रभारी होंगे। आपको अनुरोध है कि वे सहायक कार्यालय के कार्यालय में भाग लें। संयुक्त महाप्रबंधक इंजीनियरिंग (सी), एएआई, परिचालनात्मक कार्यालय, एनएससीबीआई हवाई अड्डा, कोलकाता प्रोजेक्ट, कोलकाता - 700052 अनुबंध के समझौते पर हस्ताक्षर करने और पूरा करने के लिए काम की शुरुआत की निर्धारित तारीख से 10 (दस) दिनों के भीतर। अनुबंध समझौता एक 100/- रुपए गैर-न्यायिक स्टेप पेपर पर (केवल एक सौ रुपये) के लिए निष्पादित किया जाएगा और स्टांप पेपर की लागत आपके द्वारा वहन की जाएगी।
2. Jt. Gen. Mgr. Engg (C), AAI, Netaji Subhash Chandra Bose International Airport, shall be the Engineer-in-charge of the work. You are requested to attend the office of Jt. General Manager Engg.(C) AAI, Operational Office, NSCBI Airport, Kolkata Project, Kolkata - 700052 within 10 (Ten) days from the stipulated date of start of the work, to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs.100/- (Rupees One hundred only) and the cost of the stamp paper shall be borne by you.
3. रुपये की बयाना राशि अनुबंध निविदा के पृष्ठ 33 पर धारा नंबर 1 ए की शर्त के अनुसार आपके निविदा के साथ प्राप्त की गई 17,81,480/- (सत्रह लाख इक्कासी हजार चार सौ अस्सी रुपये) का इलाज किया जाएगा और सुरक्षा जमा के एक भाग के रूप में परिवर्तित किया जाएगा। कृपया इस पत्र जारी करने की तारीख से 10 दिनों के भीतर केवल 9,97,229/- (रुपये नौ लाख सत्तानवे हजार दो सौ उन्तीस) जमा करें, यह असफल रहने के साथ ही, कलम की शर्त के अनुसार कटौती की जाएगी पृष्ठ 33 पर क्लॉज नंबर 1 ए की शर्त के अनुसार।
3. The earnest money amount of Rs. 17,81,480/- (Rupees Seventeen Lakh Eighty One Thousand Four Hundred Eighty only) received along with your tender will be treated and converted as part of Security Deposit as per condition of Clause No.1A on page 33

Received
By PABSCON
28/12/2018

Jt. General Manager (Civil)

264

Contd. P/2.....

Contractor

of contract document. Please deposit Rs. 9,97,229/- (Rupees Nine Lakh Ninety Seven Thousand Two Hundred Twenty Nine only) towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted as per condition of Clause no 1A on page 33 of the contract document.

4. स्वीकृति पत्र जारी होने के 30 दिनों के भीतर, आप AAI, एक निष्पादन गारंटी को पृष्ठ संख्या 1 पर खंड 32 की शर्त के अनुसार जमा करेंगे। रुपये की राशि के लिए 27,78,709/- (रुपए सत्ताईस लाख अठहत्तर हजार सात सौ सत्तर नौ) केवल बैंक गारंटी के रूप में प्रोफार्मा पर अनुबंध अनुबंध के ग्यारहवें पर परिशिष्ट में जोड़ा गया।
4. Within 30 days of issue of acceptance letter, you shall submit to AAI, a Performance Guarantee as per condition of clause 1 on page no. 32 for an amount of Rs. 27,78,709/- (Rupees Twenty Seven Lakh Seventy Eight Thousand Seven Hundred Nine only) in the form of Bank Guarantee on the Proforma appended at Appendix on XI of Contract Document.
5. आपको अधिनियम 1970 अनुबंध श्रम (विनियमन और उन्मूलन) के प्रावधान का अनुपालन करने का अनुरोध किया जाता है और अनुबंध श्रम (विनियमन और उन्मूलन) केंद्रीय नियम 1971 बाल श्रम (निषेध और नियमन) अधिनियम 1986, निर्माण श्रमिकों (रोजगार नियमन और सेवा की स्थिति) अधिनियम 1996, भवन और अन्य निर्माण श्रमिक कल्याण उपकर अधिनियम 1996, केंद्र और राज्य सरकार के निविदा और नियमों का जीसीसी 19 खंड के अनुसार पृष्ठ नंबर 72 पर जैसा बताया गया।
5. You are requested to comply with the provision of Contract labour (Regulation and Abolition) Act 1970 and contract labour (Regulation and Abolition) Central rules 1971 Child Labour (Prohibition & Regulation) Act 1986, Construction Workers (Regulation of Employment and Condition of Service) Act 1996, Building and other construction Workers Welfare Cess Act 1996 as specified in Clause 19 on page no 72 of GCC of tender and rules of Central and State Government.
6. आपको प्रबंधक इंजिनियर (सिविल) से संपर्क करने का भी निर्देश दिया जाता है, तत्काल वह साइट को आपके हाथ में लेने का प्रबंध करेगा।
6. You are also directed to contact AGM(Engg. - Civil), immediately who will arrange to hand over the site to you.
7. कृपया ध्यान दें कि काम करने के लिए अनुमत समय 240 (दो सौ चालीस) दिन होगा और इसी पत्र के जारी होने के बाद 10 वें दिन से गणना की जाएगी।
7. Please note that the time allowed for carrying out the work shall be 240 (Two Hundred Forty) Days and same shall be reckoned from the 10th day after the issue of this letter.
8. अनुबंध के संबंध में कोई और पत्राचार आम तौर पर अभियंता प्रभारी को संबोधित किया जाना चाहिए।
8. Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-Charge.


Jt. General Manager (Civil)


Contractor

9. कृपया रसीद को स्वीकार करें और स्वीकृति के एक टोकन के रूप में अधोहस्ताक्षरी पर हस्ताक्षर करने के बाद इसके साथ संलग्न इस पत्र की डुप्लिकेट प्रतिलिपि वापस करें।
9. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

आपको धन्यवाद।

Thanking you.

भवदीय

Encl : i) Bill of Quantities
ii) Form III

संयुक्त महाप्रबंधक (अभि - सिविल)

N.O.O. copy forwarded for kind information to :

- vii. Airport Director, AAI, NSCBI Airport, Kolkata
- viii. GM (E-C), AAI, NSCBI Airport, Kolkata
- ix. GM (F & A), AAI, NSCBI Airport, Kolkata
- x. Jt. GM(E-E), AAI, NSCBI Airport, Kolkata
- xi. AGME(C), AAI, NSCBI Airport, Kolkata
- xii. The Assistant Labour Commissioner (C) - II, 2nd M S Building, 5th Floor, Nizam Palace, 234/4, A.J.C Bose Road, Kolkata - 700 020.
- xiii. PF Commissioner, DK Block, Sector-II, Salt Lake City, Karunamoyee, Kolkata, West Bengal 700091

28.12.18
(सिवब्रत सेन)

संयुक्त महाप्रबंधक (अभि - सिविल)

भा. वि. प्रा., ने. सु. च. व. अ. विमानपत्तन, कोलकाता-52

J. General Manager (Civil)

Contractor

Government eProcurement System
Created By: SUBIR KUMAR BATABYAL
Created Date/Time: 19-Sep-2018 05:57 PM
Tender Title: Reconstruction of B taxi and E taxi at NSCB Airport Kolkata
Tender Id: 2018_AAI_14143_1

Tender Inviting Authority: AGM (Engg-Civil), Airports Authority of India, NSCB Airport, Kolkata - 700052

Name of Work: Reconstruction of B-taxi and E-taxi at NSCB Airport, Kolkata

Contract No: AAI/KOL/ENGG(C)/BE/2018_AAI_14143

SCHEDULE OF WORK / ITEM(S)

Sl.No	Description of Work / Item(s)	No. of Qty	Units	PABSCON	
				Rate	Amount
1.00	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material within airport premises, as per direction of Engineer-in-charge.	1850.00	cum	250.00	462500.00
2.00	Demolishing cement concrete manually/ by mechanical means including disposal of material within airport premises as per direction of Engineer - in - charge. (a) Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	3700.00	cum	875.00	3237500.00
3.00	Demolishing cement concrete manually/ by mechanical means including disposal of material within airport premises as per direction of Engineer - in - charge. (b) Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	1240.00	cum	800.00	992000.00
4.00	Demolishing dry brick pitching in floors, drains etc. including stacking of serviceable material and disposal of unserviceable material within airport premises.	1850.00	cum	250.00	462500.00
5.00	Excavation in soil with hydraulic excavator i/c cutting and loading in tipper, trimming bottom and side slope in accordance with requirements of lines, grades and cross-section and transporting and unloading the surplus soil within all lifts and lead within airport premises. a) All kinds of soil.	11780.00	cum	120.00	1413600.00
6.00	Consolidation of subgrade by power road roller of minimum 8 to 10 tonnes capacity for graded/excavated/dressed surface i/c making good the undulations and re-rolling the subgrade as per direction of E-I-C.	12330.00	sqm	4.00	49320.00
7.00	Supplying and filling with fine sand (yellow) under sub base including watering, ramming consolidating and dressing complete.	2470.00	cum	1350.00	3334500.00
8.00	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level. a) 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	2770.00	cum	3900.00	10803000.00
9.00	Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS : 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batch plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tone vibratory roller, finishing and curing etc. complete as per direction of engineer-in-charge.	1560.00	cum	3800.00	5928000.00
10.00	Providing and laying transparent (1st quality) polythene sheet (separation membrane) 200 microns thick on the base course with overlaps of not less than 50mm longitudinally and 75mm transversely complete as per directions and satisfaction of Engineer-in-charge.	24660.00	sqm	30.00	739800.00
11.00	Providing and laying Pavement Quality Concrete (PQC) produced in a batching plant having a Characteristic Flexural Strength i.e. minimum flexural strength of 4.1 Mpa at 28 days using 350 Kg of (Portland Pozzolana Cement); fine aggregate, grade stone aggregates of 40 mm nominal size in appropriate proportion as per specification and job mix formula, laid in panels as per drawing / design as approved by the Engineer-In-Charge using manual method including making necessary provision for expansion joint, curing, etc. complete as per direction of Engineer -in-Charge and particular specifications. The item for execution shall also include the following operations: i) Mechanically cutting dummy joints 3 mm wide X 1/3rd thickness of slab which is subsequently widened to 10 mm for the top 25 mm depth and construction joints 10 mm wide X 25 mm deep as per specification. ii) Filling sealant in dummy, construction and expansion joints including providing close-cell Polyethylene foam back-up rod, and painting side of joints with primer, etc. complete to be paid separately under item 13 & 14.) (Note: cement content considered in this item is @ 350 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately). Note:- ii) Prior to start of work the job mix for PQC shall be got designed by the agency from the laboratory approved by AAI and the cost of mix design shall be borne by the agency and nothing extra is payable on this account.	4450.00	cum	4960.00	22072000.00

Contractor

General Manager (Civil)

12.00	Providing and laying in position polysulphide sealant of approved make conforming to BS-5212-1990 or IS: 11433-1995. In expansion / construction/dummy joints including rounding off edges, applying 2 coats of approved primer primer compatible with the brand of polysulphide and preparing the surface and applying masking tape along the edge of joint to prevent accidental spillage of sealant on top surface and to give neat finish to the sealant and removing the masking tape after application of sealant etc. Complete as per direction of Engineer-In-Charge & particular specification. [Note : For purpose of payment, quantity (Length X Width X Depth) of Polysulphide sealant only will be, measured.] a) Expansion Joints of size 25 mm wide and 10 mm deep over 30 mm dia closed-cell Polyethylene foam back-up rod, as per manufacturers specification and sketch at Appendix-'A'	616500.00	cum	1.60	986400.00
13.00	Providing and laying in position polysulphide sealant of approved make conforming to BS-5212-1990 or IS: 11433-1995. In expansion / construction/dummy joints including rounding off edges, applying 2 coats of approved primer primer compatible with the brand of polysulphide and preparing the surface and applying masking tape along the edge of joint to prevent accidental spillage of sealant on top surface and to give neat finish to the sealant and removing the masking tape after application of sealant etc. Complete as per direction of Engineer-In-Charge & particular specification. [Note : For purpose of payment, quantity (Length X Width X Depth) of Polysulphide sealant only will be, measured.] a) Construction Joints / dummy joints / contraction joints of size 10 mm wide and 10 mm deep over 12 mm dia closed-cell Polyethylene foam back-up rod, as per manufacturers specification and sketch at Appendix-'A'	246600.00	cum	1.60	394560.00
14.00	Providing and laying in position for expansion joints, 25mm thick pre-cut synthetic joint filler board of approved make conforming to IS : 1838 (Part 3) - 2011, 45 mm from top (to be removed at the time of filling of polysulphide sealant), complete as per particular specifications and direction of Engineer In Charge. (Note: Mode of	2470.00	sqm	900.00	2223000.00
15.00	Supply of 5 KV grade, copper conductor, XLPE insulated, Polyethylene sheathed, single core, and with inner and outer semi conductor, screened underground cable for airfield lighting generally as specified in particular specification of the following sizes as required. a) 6 sq mm.	960.00	Mtrs	160.00	153600.00
16.00	Supply of following sizes 5 KV grade, 25 A field mounted & resin filled Plug and Receptacle suitable for 5 KV grade single core copper conductor screened cable etc as required. a) 6 sq. mm., (10 nos of GSB +30 nos of TXE, TXC) for B Taxi. (06 nos of GSB +30 nos of TXE, TXC) for E Taxi	91.20	Set	800.00	72960.00
17.00	Dismantling of cable laid in existing pipe/ Duct of size up to 25 Sq MM, upto 5 KV grade and returning to AAJ store	960.00	Mtrs	55.00	52800.00
18.00	Dismantling of existing Elevated Runway Edge / taxiway edge light fittings along with isolating transformer etc. complete as required and preserve at AAJ store.	36.00	Set	550.00	19800.00
19.00	Installation, testing and commissioning of the Elevated taxiway edge light fittings on the existing MS housing. Box i/c modification of the top cover if required along with isolating transformer etc. complete as whatever required to hand over system in operational condition etc. complete as required.	36.00	Each	415.00	14940.00
20.00	Supply of the CI Boxes for taxiway edge light fittings of dimensions 330 mm x 330 mm x 400 mm (H) made out 6 mm thick MS sheet and top cover 10 mm thick MS sheet and as per the technical specifications (For TXE, GSB and TXC)	91.20	Each	4500.00	410400.00

28.12.18

General Manager (Civil)

Contractor

21.00	Installation of the MS Transformer housing box of size 330 mm x 330 mm x 400 mm (H) made out 6 mm thick MS sheet and top cover 10 mm thick MS sheet using cement concrete 1:2:4, 100 mm all around the box and as per the technical specifications i/c painting, lettering, numbering etc. as required. For (TXE, GSB, TXC)	91.20	Each	2000.00	182400.00
22.00	Supply & Laying of 50/40 mm double wall corrugated high density polyethylene (DWC HDPE) pipe, complete with accessories like couplers, bends, tee etc. in Concrete/bituminous area of minimum 150 mm depth by saw cutting, back filling & making good the same by concreting /bitumen finish as per the site requirement.	960.00	Mtrs	800.00	768000.00
23.00	Supply and laying of 50 mm/ 40 mm double wall corrugated high density polyethylene (DWC HDPE) pipe, complete with accessories like couplers, bends, tee etc. in the soil for GLF work upto 750 mm deep with excavation, back filling & making good the same as per site requirement.	960.00	Mtrs	290.00	278400.00
24.00	Laying of one number PVC insulated & PVC sheathed armoured aluminium / copper conductor power cable of grade exceeding 1.1 KV but not exceeding 11 KV of size not exceeding 25 sq. mm. in the existing cable duct / masonry trench/ RCC/HUME/METAL/HDPE pipes etc. as required.	2304.00	Mtrs	55.00	126720.00
25.00	Making connection of 5 KV grade, 6 Sq mm Copper conductor cable with resin filled plug & receptacle etc. complete as required	91.20	Job	650.00	59280.00
26.00	Providing and fixing of 6 SWG G.I. wire on surface or in recess for loop earthing as required.	1920.00	Mtrs	60.00	115200.00
27.00	Dismantling of existing guidance signage boards by disconnecting from the circuit, i/c dismantling, isolating transformers and carrying & stacking at AA1 store (within 07 KM range) as per the instruction of engineer-in-charge.	16.00	Job	1500.00	24000.00
28.00	Installation, Testing & Commissioning of the dismantled guidance sign boards of various sizes (As per item no: 14) at different locations inside operational area i/c grouting of foundation bolts, connection & inter-connection with isolating transformers (Primary & Secondary side) etc. as per existing site condition and as per the technical specifications as required.	16.00	Job	4500.00	72000.00
29.00	Providing and laying in position cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for foundation of Guidance Signage Boards all around 150 mm thick 1:2:4 PCC including form work etc. as required as per the site condition.	10.00	CUM	7000.00	70000.00
30.00	Taking GPS based co-ordinates by using total station and identifying the locations of light fixtures, route of cable etc based on GPS co-ordinates and marking, submission of reports / drawings as required and as per directions of the Engineer In charge.	1.00	Job	55000.00	55000.00

Total in Figures

55574180.00

Lowest Amount Quoted BY: PABSCON(55574180.00)

26/12-18

J. General Manager (Civil)

Contractor

**Normative approach to compare the cost of
" Special repair and Rehabilitation of Airfield Pavements at NSCBI Airport, Kolkata"**

The ceiling of per sqm expenditure in the matter of normative approach in 2016 was Rs 4700/ Sqm. (Annex-II).
Calculating and bringing the normative cost of 2016 till 2022 (completion of work) @ 4.20% per annum compounding rate, hence multiplying factor is 1.2799 i.e
 $= 4700 \times (1 + 4.2\%)^6 = 4700 \times 1.2799 = 6015.53$


The awarded amount of Special repair and Rehabilitation of Airfield Pavements at NSCBI Airport, Kolkata Work is Rs. 9,26,33,800.00 (Annexure I) which include pavement works, laying of compogrid(CG-100) and Electrical works, etc. The total pavement area is 81000 Sqm. (Annexure-III).

Sl.No.	Description	Amount Rs.	Area Sqm	Rate per Sqm
1	Cost of Pavement work	76129500.00	81000.00	939.87
2	Normative Cost for pavement till year 2022			6015.53

Since Rate of Pavement work per sqm is less than the normative cost in the year 2022 (Completion year), Rate at Kolkata is justified.

Total abstract of cost of the project

Sl.no.	Description	Amount	Remarks
1	Pavement work	76129500.00	Annexure IV
2	Amount of civil works other than Pavement work (laying of compogrid(CG-100) and Electrical works etc.)= Rs. 16504300.00	16504300.00	
	Total cost of project = Rs.	92633800.00	


30.09.21
ngs(E-1)


30/07/21
AGM(E-1)


30.09.2021
St. GM(E-1)

N/W:- Special repair and Rehabilitation of Airfield Pavements at NSCBI Airport, Kolkata

Calculation of Rate

Sl.No	Descriptions	Quoted Amount (Rs.)
1	Total cost of pavement area	
	Item no: 01- Tack coat- 0.45 kg/sqm	848000.00
	Item no: 01- Tack coat- 0.35 kg/sqm	1800000.00
	Item no: 04 - Stone Matrix Asphalt	400000.00
	Item no: 05- SDAC	46221500.00
	Item no: 06- DAC	26860000.00
	Total (Rs.) = (A)	76129500.00
2	Total area of pavement (Taxiway area) = (B)	81000.00
	TOTAL Cost of pavement per sqm excluding GST = (A/B)	939.87

30.09.21
Nag (E-C)

30/09/21
Nag (E-C)

AREA CALCULATION

Name of work: Special repair and Rehabilitation of Airfield Pavements at NSCBI Airport,
Kolkata.

Sl. No.	Description of item	Nos.	No.	Length	Breadth	Area	Unit
	Total Runway & Taxi area						
1	1) 19R-Kilo junction to 19L-Kio junction						
	Straight portion	1	1	233	27.00	6291.00	
	Fillet1	1	0.5	165	11.00	907.50	
	Fillet2	1	0.5	140	28.00	1960.00	
	Fillet3	1	0.5	110	26.00	1430.00	
	Fillet4	1	0.5	55	60.00	1650.00	
	K-Taxi east side	1	1	290	7.50	2175.00	
	K-Taxi west side	1	1	280	7.50	2100.00	
2	2) Secondary Runway						
	Secondary Runway (From displaced threshold to Alpha-Secondary junction)	1	1	680	45.00	30600.00	
	Turn Pad(a) rectangular area	1	1	115	61.00	7015.00	
	Turn Pad(b) triangular area	1	0.5	110	61.00	3355.00	
	Sec. Rwy east side	1	1	305	7.50	2287.50	
		1	1	120	7.50	900.00	
	Sec. Rwy west side	1	1	637	7.50	4777.50	
		1	1	20	7.50	150.00	
3	3) Alpha-Secondary junction to bend portion(beyond threshold marking on A-taxiway)	1	1	218	23.00	5014.00	
4	4) Alpha Taxiway(from bend to Alpha-Bravo junction)	1	1	217	23.00	4991.00	
	Alpha taxiway west side	1	1	340	7.50	2550.00	
	Alpha taxiway east side	1	1	380	7.50	2850.00	
				Total Rwy & Taxi area		81000.00	sqm.


 30.09.21
 MGO(E-C)



Annexure - I

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA
विमानपत्तन अनुरक्षण मण्डल(सि०)
AIRPORT MAINTENANCE DIVISION-I
ने सु च बोस अ विमानपत्तन, कोलकाता-52
N.S.C.B.I AIRPORT, KOL-52

No. ए. ए. आई/ कोल/ इंजीनियरिंग (सी) /Spl. Repair / 697

दिनांक : 15/01/2021

To,
मेसर्स एल. के. बिल्डर्स
L. K. Builders
24/2A, Jessore Road,
Kolkata - 700028

कार्य का नाम: - एनएससीबीआई एयरपोर्ट, कोलकाता में एयरफील्ड फुटपाथों की विशेष मरम्मत और पुनर्वास

Name of Work:- Special repair and rehabilitation of Airfield Pavements at NSCBI Airport, Kolkata

Ref. :- Your e-tender no. 2020_AAI_57350 opened on dated 20/10/2020

Dear Sir(s),


- ऊपर उल्लिखित कार्य के लिए आपका टेंडर, एअरपोर्ट अथॉरिटी ऑफ़ इंडिया की ओर से स्वीकार किया जाता है, आपके द्वारा कुल रु. 9,26,33,800/- (रुपए नौ करोड़ छब्बीस लाख तैंतीस हजार आठ सौ केवल) जीएसटी को छोड़कर, जो उचित लागत रु. 10,34,24,409 /- से 10.43% कम है, जीएसटी को छोड़कर
1. Your e-tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling to Rs. 9,26,33,800/- (Rupees Nine Crore Twenty Six Lakh Thirty Three Thousand Eight Hundred Only) excluding GST which is 10.43% below the Justified cost of Rs. 10,34,24,409/- excluding GST.
2. संयुक्त महाप्रबंधक इंजीनियरिंग (सिविल), एएआई, नेताजी सुभाष चंद्र बोस अंतर्राष्ट्रीय हवाई अड्डे, कार्य के अभियंता प्रभारी होंगे। आपसे अनुबंध पर हस्ताक्षर करने और उसे पूरा करने के लिए संयुक्त महाप्रबंधक इंजीनियरिंग (सिविल), एएआई, परिचालन कार्यालय, एनएससीबीआई एयरपोर्ट, कोलकाता - 700052 के कार्यालय में 25/01/2021 तक उपस्थित होने का अनुरोध किया जाता है। अनुबंध समझौते की मूल्य 100/- (रुपए एक सौ केवल) के गैर-न्यायिक स्टॉप पेपर पर निष्पादित किया जाएगा और स्टॉप पेपर की लागत आपके द्वारा वहन की जाएगी।
2. Jt. Gen.Mgr. Engg (C), AAI, Netaji Subhash Chandra Bose International Airport, shall be the Engineer-in-charge of the work. You are requested to attend the office of Jt. General Manager Engg.(C) AAI, Operational Office, NSCBI Airport, Kolkata - 700052 by 25/01/2021 to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs.100/- (Rupees One hundred only) and the cost of the stamp paper shall be borne by you.
3. आपकी निविदा के साथ रुपये 20,68,410/- की बयाना राशि का उपयोग किया जाएगा और अनुबंध दस्तावेज़ के खंड संख्या 1 पृष्ठ 34 पर की शर्त के अनुसार सुरक्षा जमा के हिस्से के रूप में परिवर्तित किया जाएगा। कृपया इस पत्र के जारी होने की तारीख से 10 दिनों के भीतर रुपये 25,63,280/- जमा करें, जो कि ऐसा न करने पर, उसी को अनुबंध दस्तावेज़ के खंड संख्या 1 ए पृष्ठ 35 पर की शर्त के अनुसार काटा जाएगा।

JT. GM (E-C)

CONTRACTOR

Contd. P/2.....

3. The earnest money amount of Rs. 20,68,410/- (Rupees Twenty Lakh Sixty Eight Thousand Four Hundred Ten only) received along with your tender will be treated and converted as part of Security Deposit as per condition of Clause No.1A on page 35 of contract document. Please deposit Rs. 25,63,280/- (Rupees Twenty Five Lakh Sixty Three Thousand Two Hundred Eighty only) towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted as per condition of Clause no 1A on page 35 of the contract document.
4. स्वीकृति पत्र जारी होने के 30 दिनों के भीतर, आप AAI, एक निष्पादन गारंटी को पृष्ठ संख्या 1 पर खंड 34 की शर्त के अनुसार जमा करेंगे। रुपये 46,31,690/- की राशि के लिए (रुपए छियालीस लाख इकत्तीस हजार छह सौ नव्वे) केवल बैंक गारंटी के रूप में अनुबंध -XI के प्रोफार्मा में जोड़ा गया।
4. Within 30 days of issue of acceptance letter, you shall submit to AAI, a Performance Guarantee as per condition of clause 1 on page 34 for an amount of Rs. 46,31,690/- (Rupees Fourty Six Lakhs Thirty One Thousand Six Hundred Ninety only) in the form of Bank Guarantee on the Proforma appended at APPENDIX -XI on page no. 141 of Contract Document.
5. आपको अधिनियम 1970 अनुबंध श्रम (विनियमन और उन्मूलन) के प्रावधान का अनुपालन करने का अनुरोध किया जाता है और अनुबंध श्रम (विनियमन और उन्मूलन) केंद्रीय नियम 1971 बाल श्रम (निषेध और नियमन) अधिनियम 1986, निर्माण श्रमिकों (रोजगार नियमन और सेवा की स्थिति) अधिनियम 1996, भवन और अन्य निर्माण श्रमिक कल्याण उपकर अधिनियम 1996, केंद्र और राज्य सरकार के निविदा और नियमों का जीसीसी 19 खंड के अनुसार पृष्ठ नंबर 73 पर जैसा बताया गया।
5. You are requested to comply with the provision of Contract labour (Regulation and Abolition) Act 1970 and contract labour (Regulation and Abolition) Central rules 1971 Child Labour (Prohibition & Regulation) Act 1986, Construction Workers (Regulation of Employment and Condition of Service) Act 1996, Building and other construction Workers Welfare Cess Act 1996 as specified in Clause 19 on page no 73 of GCC of tender and rules of Central and State Government.
6. आपको सहायक प्रबंधक इंजिनियर (सिविल) एएआई, परिचालन कार्यालय, एनएससीबीआई एयरपोर्ट, कोलकाता - 700052 से संपर्क करने का भी निर्देश दिया जाता है, तत्काल वह साइट को आपके हाथ में लेने का प्रबंध करेगा।
6. You are also directed to contact AGM (Engg. - Civil), Airports Authority of India, Operational Office, NSCBI Airport, Kolkata - 700052 immediately who will arrange to hand over the site to you.
7. कृपया ध्यान दें कि काम करने के लिए अनुमत समय 105 (एक सौ पाँच) दिन होगा और इसी पत्र के जारी होने के बाद 10 वें दिन से गणना की जाएगी।
7. Please note that the time allowed for carrying out the work shall be 105 (One Hundred Five) Days and same shall be reckoned from the 10th day after the issue of this letter.


JT. GM (E-C)


CONTRACTOR

Contd. P/3.....

8. अनुबंध के संबंध में कोई और पत्राचार आम तौर पर अभियंता प्रभारी को संबोधित किया जाना चाहिए।
8. Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-Charge.
9. कृपया रसीद को स्वीकार करें और स्वीकृति के एक टोकन के रूप में अधोहस्ताक्षरी पर हस्ताक्षर करने के बाद इसके साथ संलग्न इस पत्र की डुप्लिकेट प्रतिलिपि वापस करें।
9. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.
10. यदि अंग्रेजी और हिंदी के बीच कोई विसंगति है तो अंग्रेजी में निकाले गए अर्थ को वरीयता दी जाएगी।
10. If there is any discrepancy between English and Hindi, then meaning derived in English will be given precedence.

आपको धन्यवाद।
Thanking you.

भवदीय

संयुक्त महाप्रबंधक (अभि - सिविल)

संलग्न -

- i. फर्म - III
- ii. बिल अनुसूची

N.O.O. copy forwarded for kind information to :

- i. Airport Director, AAI, NSCB Airport, Kolkata
- ii. GM (E-C), AAI, NSCB Airport, Kolkata
- iii. GM (F & A), AAI, NSCB Airport, Kolkata
- iv. A GM (E-C) AAI, NSCB Airport, Kolkata
- v. The Assistant Labour Commissioner (C) - II, 2nd M S O Building, 5th Floor, Nizam Palace, 234/4, A.J.C Bose Road, Kolkata - 700 020.
- vi. PF Commissioner, DK Block, Sector-II, Salt Lake City, Karunamoyee, Kolkata, West Bengal 700091.

JT. GM (E-C)

285

CONTRACTOR

24/04
15.04.2021

(सिबब्रत सेन)

संयुक्त महाप्रबंधक (अभि - सिविल)

भा. वि. प्रा., ने. सु. च. ब. अ. विमानपत्तन, कोलकाता-52

Item Rate BoQ

Tender/Inviting Authority: AGM (Engg-Civil), Airports Authority of India, NSCBI Airport, Kolkata - 700052

Name of Work: Special repair and Rehabilitation of Airfield Pavements at NSCBI Airport, Kolkata.

Contract No: AAI/Kol/Engg.(C)/Spl Repair/2020_AAI_57350

Name of the Bidder/ Bidding Firm / Company		L K BUILDERS										
<p align="center">PRICE SCHEDULE</p> <p>(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)</p>												
NUMBER #	TEXT #	Item Description	TEXT #	Quantity	Units	NUMBER #	RATE In Figures To be entered by the Bidder (Inclusive of all Taxes if any except GST) Rs. P	NUMBER #	TOTAL AMOUNT in Rs. P	NUMBER #	TOTAL AMOUNT	TEXT #
1	2	Providing and applying tack coat using hot straight run bitumen of VG-30 including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing Runways/Road surface as per specifications. complete in all respects as per the direction of E-I-C. On existing Concrete surface @ 0.45 kg/sqm	3	42400.00	Sqm	7	20.00	8	848000.00	9	848000.00	10
1			item1									INR Eight Lakh Forty Eight Thousand Only


 J.T. GM (E-C)
 185
 CONTRACTOR

2	Providing and applying tack coat using hot straight run bitumen of VG-30 including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing Runways/Road surface as per specifications. complete in all respects as per the direction of E-I-C. On existing bituminous surface @ 0.35 kg/sqm	item2	120000.00	Sqm	15.00	1800000.00	1800000.00	INR Eighteen Lakh Only
3	Providing and Laying in position Compogrid 100(CG-100) on Runways and Taxiways over cleaned bituminous surface immediately after application of tack coat with overlaps at end to end roll joints of 150 mm and overlap in longitudinal joints of 100 mm as required as per direction of Engineer-in-Charge.	item3	81200.00	Sqm	160.00	12992000.00	12992000.00	INR One Crore Twenty Nine Lakh Ninety Two Thousand Only
4	Providing and laying Stone Matrix Asphalt (SMA) with Hot Mix Plant meeting the requirement as per MoRT&H Specification using coarse aggregates, fine aggregates, mineral filler, pelletized cellulose fiber and bituminous binder of required specification including screening, cleaning of chips and preparing a uniform and homogenous mix and transporting the hot mix to work side laying with a hydrostatic paver finisher with sensor control / manual to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H Specifications for road and bridge work complete in all respect. 13 mm SMA with layer thickness 25-50 mm.	item4	50.00	Cum	8000.00	400000.00	400000.00	INR Four Lakh Only

JT. GM (E-C)

CONTRACTOR

5	<p>Providing and laying of Hot Mix Semi Dense Asphaltic Concrete (SDAC) using crushed stone aggregate of quality, size and grading as specified and 2% cement by weight of aggregates as filler and Viscosity Grade Bitumen (supplied in bulk) in proportions as per job formula and laid to specified levels, grade and camber as per specification, drawings and as directed by the Engineer-in-Charge including compacting with 8-10 tonne, preferably vibratory road roller of adequate capacity to achieve the specified values of compaction, strength, surface accuracy complete [for tendering purpose VG bitumen of grade VG-30 content shall be taken as 120 kg/m³ of mix supplied in bulk produced by Govt. Refineries and 2% cement by weight of aggregates as filler material].</p>	item5	5470.00	Cum	8450.00	46221500.00	46221500.00	INR Four Crore Sixty Two Lakh Twenty One Thousand Five Hundred Only
6	<p>Providing and laying of Hot Mix Dense Asphaltic Concrete (DAC) using crushed stone aggregate of quality, size and grading as specified and 2% cement by weight of aggregates as filler of quality as specified and Viscosity Grade Bitumen (supplied in bulk) in proportions as per job mix formula and laid to specified levels, grade and camber as per specification, drawings and as directed by the Engineer-in-Charge including compacting with 8-10 tonne, preferably vibratory road roller of adequate capacity to achieve the specified values of compaction, strength, surface accuracy complete [for tendering purpose VG bitumen of grade VG-30 content shall be taken as 135 kg/m³ of mix supplied in bulk produced by Govt. Refineries and 2% cement by weight of aggregates as filler material].</p>	item6	3160.00	Cum	8500.00	26860000.00	26860000.00	INR Two Crore Sixty Eight Lakh Sixty Thousand Only

JT. GM (E-C)

CONTRACTOR

7	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or richer mix (I/c equivalent design mix)	item 7	50.00	Cum	50.00	40000.00	40000.00	INR Forty Thousand Only
8	Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. bituminous road	item 8	50.00	sqm	50.00	2500.00	2500.00	INR Two Thousand Five Hundred Only
9	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading and spreading within airport boundary beyond the 50 m initial lead, including all lifts as per direction of Engineer-in-charge.	item 9	2630.00	Cum	100.00	263000.00	263000.00	INR Two Lakh Sixty Three Thousand Only
10	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of all dirt, scales, oil, grease and other foreign material etc. and lining out complete. New work (One or more coats).	item 10	4060.00	Sqm	100.00	406000.00	406000.00	INR Four Lakh Six Thousand Only

JT. GM (E-C)

CONTRACTOR

11	<p>Laying of 40mm GI pipe (medium class) complete with accessories like couplers, bends, tee etc. complete as required. for GLF work including machine cutting of shoulders / runway /taxiway surface in bituminous area of width 110mm and upto 150mm deep ,by saw cutting, taking the excavated material out of the area within a lead of 2 kms.and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.</p>	item11	3260.00	mtrs	400.00	1304000.00	1304000.00	INR Thirteen Lakh Four Thousand Only
12	<p>Laying of 40mm GI pipe (medium class) complete with accessories like couplers, bends, tee etc. complete as required. for GLF work including machine cutting of shoulders / runway /taxiway surface in concrete area of width 110mm and upto 150mm deep ,by saw cutting, taking the excavated material out of the area within a lead of 2 kms.and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.</p>	item12	4350.00	mtrs	10.00	43500.00	43500.00	INR Forty Three Thousand Five Hundred Only

JT. GM (E-C)

CONTRACTOR

13	Laying of 50/40 mm double wall corrugated high density polyethylene DWC pipe complete with accessories like couplers, bends ,tee etc. complete as required. for GLF work including machine cutting of shoulders / runway /taxiway surface in bituminous area of width 110mm and upto 150mm deep ,by saw cutting, taking the excavated material out of the area within a lead of 2 kms.and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.	item13	2300.00	mtrs	400.00	920000.00	920000.00	INR Nine Lakh Twenty Thousand Only
14	Laying of 50/40 mm double wall corrugated high density polyethylene DWC pipe complete with accessories like couplers, bends ,tee etc. complete as required. for GLF work including machine cutting of shoulders / runway /taxiway surface in concrete area of width 110mm and upto 150mm deep ,by saw cutting, taking the excavated material out of the area within a lead of 2 kms.and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.	item14	1850.00	mtrs	10.00	18500.00	18500.00	INR Eighteen Thousand Five Hundred Only
15	Laying of 65 mm GI pipe (medium class) complete with accessories like couplers, bends ,tee etc. complete as required. for GLF work including machine cutting of shoulders / runway /taxiway surface in bituminous area of width 140mm and upto 200mm deep ,by saw cutting, taking the excavated material out of the area within a lead of 2 kms.and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.	item15	720.00	mtrs	400.00	288000.00	288000.00	INR Two Lakh Eighty Eight Thousand Only

CONTRACTOR

JT. GM (E-C)

16	Laying of 65 mm GI pipe (medium class) complete with accessories like couplers, bends, tee etc. complete as required. for GLF work including machine cutting of shoulders / runway / taxiway surface in concrete area of width 140mm and upto 200mm deep, by saw cutting, taking the excavated material out of the area within a lead of 2 kms. and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.	item16	2480.00	mtrs	10.00	24800.00	24800.00	INR Twenty Four Thousand Eight Hundred Only
17	Laying of 90 mm OD double wall corrugated high density polyethylene DWC pipe complete with accessories like couplers, bends, tee etc. complete as required. for GLF work including machine cutting of shoulders / runway / taxiway surface in bituminous area of width 140mm and upto 200mm deep, by saw cutting, taking the excavated material out of the area within a lead of 2 kms. and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.	item17	200.00	mtrs	500.00	100000.00	100000.00	INR One Lakh Only
18	Laying of 90 mm OD double wall corrugated high density polyethylene DWC pipe complete with accessories like couplers, bends, tee etc. complete as required. for GLF work including machine cutting of shoulders - / runway / taxiway surface in concrete area of width 140mm and upto 200mm deep, by saw cutting, taking the excavated material out of the area within a lead of 2 kms. and after cleaning pipe channel by air compressor machine applying tack coat of grade VG-30 and refilling with Semi Dense Asphaltic Concrete (Bituminous mix as per the technical Specifications of Semi Dense Asphaltic Concrete (SDAC) agreement item) as per the site requirement and as per directions of the EIC.	item18	200.00	mtrs	10.00	2000.00	2000.00	INR Two Thousand Only

JT. GM (E-C)

CONTRACTOR

19	Taking GPS based co-ordinates by using total station and identifying the locations of light fixtures, route of cable etc based on GPS co-ordinates and marking, submission of reports and design of runway light (such as REH, TXE, TXC, RCL STB, etc) as per ICAO Specification as required and as per directions of the Engineer In charge.	1.00	Job	100000.00	100000.00	100000.00	INR One Lakh Only
Total in Figures					92633800.00	92633800.00	INR Nine Crore Twenty Six Lakh Thirty Three Thousand Eight Hundred Only
Quoted Rate in Words							

JT. GM (E-C)

CONTRACTOR

**Normative approach to compare the cost of
" Reconstruction of Broken Slab of Bay No. 3 and 4 at NSCBI Airport, Kolkata"**

The ceiling of per sqm expenditure in the matter of normative approach in 2016 was Rs 4700/ Sqm. (Annex-II).
Calculating and bringing the normative cost of 2016 till 2022 (completion of work) @ 4.20% per annum compounding rate, hence multiplying factor is 1.2799 i.e
 $= 4700 \times (1 + 4.2\%)^6 = 4700 \times 1.2799 = 6015.53$


The awarded amount of Reconstruction of Broken Slab of Bay No. 3 and 4 at NSCBI Airport, Kolkata work is Rs. 5,94,25,575.00 (Annexure I) which include pavement works, RCC drains, joint filling etc. The total pavement area is 10650 Sqm. (Annexure-III).

Sl.No.	Description	Amount Rs.	Area Sqm	Rate per Sqm
1	Cost of Pavement work	43844125.00	10650.00	4116.82
2	Normative Cost for pavement till year 2022			6015.53

Since Rate of Pavement work per sqm is less than the normative cost in the year 2022 (Completion year), Rate at Kolkata is justified.

Total abstract of cost of the project

Sl.no.	Description	Amount	Remarks
1	Pavement work	43844125.00	Annexure IV
2	Amount of civil works other than Pavement work (RCC drains and joint filling etc.)= Rs. 15581450.00	15581450.00	
	Total cost of project = Rs.	59425575.00	


30/09/21
NGS(E-C)


30/09/21
ASW(E)


30.09.2021
St. AM (E-C)

N/W:- Reconstruction of Broken Slab of Bay No. 3 and 4 at NSCBI Airport, Kolkata.

Calculation of Rate

Sl.No	Descriptions	Quoted Amount (Rs.)
1	Total cost of pavement area	
	Item no: 08 - GSBC	6341000.00
	Item no: 09 - WMM	5592300.00
	Item no: 10 - DRLC	5600000.00
	Item no: 12 - PQC	26310825.00
	Total (Rs.) = (A)	43844125.00
2	Total area of pavement (Apron area) = (B)	10650
	TOTAL Cost of pavement per sqm excluding GST = (A/B)	4116.82

30.09.21
MGR(E-C)

30.09.21
MGR(E-C)

Annexure-III					
Name of Work :- Reconstruction of broken slab bay no. 3 & 4 at NSCBI Airport.					
<u>Area calculation</u>					
Apron	1.00	140.00	52.00	7280.00	
	1.00	100.00	32.00	3200.00	
	1.00	90.00	5.00	450.00	
Less Cable trench	1.00	80.00	1.60	-128.00	
Less Drain	1.00	95.00	1.60	-152.00	
				10650.00	sqm
Drain length =95.00 mtr					


 30.09.21
 mgs(E-O)



Annexure - I

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA
विमानपत्तन अनुरक्षण मण्डल (सि०) - I
AIRPORT MAINTENANCE DIVISION-I
ने सु च बोस अ विमानपत्तन, कोलकाता-52
N.S.C.B.I AIRPORT, KOL-52

No. AAI/Kol/Engg(C)/Bay 3 & 4/430

Date : 07/01/2019

To,
L. K. Builders
24/2A, Jessore Road,
Kolkata - 700028

कार्य का नाम: - कोलकाता के एनएससीबीआई हवाई अड्डे पर बे नं 3 और 4 के टूटे हुए स्लेब का पुनर्निर्माण

Name of Work:- Reconstruction of Broken Slab of Bay No. 3 and 4 at NSCBI Airport, Kolkata

Ref. :- Your e-tender no. 2018_AAI_14239 opened on dated 28/09/2018

Dear Sir(s),

- ऊपर उल्लिखित कार्य के लिए आपका टेंडर, एअरपोर्ट अथॉरिटी ऑफ इंडिया की ओर से स्वीकार किया जाता है, आपके द्वारा रु। कुल रु। 5,94,25,575/- (रुपए पांच करोड़ चौरानवे लाख पच्चीस हजार पांच सौ पचहत्तर केवल) जीएसटी को छोड़कर, जो अनुमानित लागत रु। से 37.18% कम है, रु। 9,46,00,000/- जीएसटी को छोड़कर।
- Your tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rate quoted by you totaling to Rs. 5,94,25,575/- (Rupees Five Crore Ninty Four Lakh Twenty Five Thousand Five Hundred Seventy Five only) excluding GST which is 37.18 % below the Estimated cost put to tender of Rs. 9,46,00,000/- excluding GST.
- संयुक्त महाप्रबंधक इंजीनियरिंग (सी), एएआई, नेताजी सुभाष चंद्र बोस अंतरराष्ट्रीय हवाई अड्डे, काम के अभियंता प्रभारी होंगे। आपको अनुरोध है कि वे सहायक कार्यालय के कार्यालय में भाग लें। संयुक्त महाप्रबंधक इंजीनियरिंग, (सी), एएआई, परिचालनात्मक कार्यालय, एनएससीबीआई हवाई अड्डा, कोलकाता प्रोजेक्ट, कोलकाता - 700052 अनुबंध के समझौते पर हस्ताक्षर करने और पूरा करने के लिए काम की शुरुआत की निर्धारित तारीख से 10 (दस) दिनों के भीतर। अनुबंध समझौता एक 100/- रुपए गैर-न्यायिक स्टैंप पेपर पर (केवल एक सौ रुपये) के लिए निष्पादित किया जाएगा और स्टॉप पेपर की लागत आपके द्वारा वहन की जाएगी।
- Jt.Gen.Mgr. Engg (C), AAI, Netaji Subhash Chandra Bose International Airport, shall be the Engineer-in-charge of the work. You are requested to attend the office of Jt. General Manager Engg.(C) AAI, Operational Office, NSCBI Airport, Kolkata Project, Kolkata - 700052 within 10 (Ten) days from the stipulated date of start of the work, to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs.100/- (Rupees One hundred only) and the cost of the stamp paper shall be borne by you.
- रुपये की बयाना राशि अनुबंध निविदा के पृष्ठ 33 पर धारा नंबर 1 ए की शर्त के अनुसार आपके निविदा के साथ प्राप्त की गई 18,92,000/- (अठारह लाख बयाने हजार रुपये केवल) का इलाज किया जाएगा और सुरक्षा जमा के एक भाग के रूप में परिवर्तित किया जाएगा। कृपया इस पत्र जारी करने की तारीख से 10 दिनों के भीतर केवल 10,79,279/- (रुपये दस लाख उन्यासी हजार दो सौ उन्यासी केवल) जमा करें, यह असफल रहने के साथ ही, कलम की शर्त के अनुसार कटौती की जाएगी पृष्ठ 33 पर क्लॉज नंबर 1 ए की शर्त के अनुसार।

[Signature]

7/1/19

Jt. General Manager (C/M)

237

Contd. P/2.....
Contractor

3. The earnest money amount of Rs. Rs. 18,92,000/- (Rupees Eighteen Lakh Ninety Two Thousand only) received along with your tender will be treated and converted as part of Security Deposit as per condition of Clause No.1A on page 33 of contract document. Please deposit Rs. 10,79,279/- (Rupees Ten Lakh Seventy Nine Thousand Two Hundred Seventy Nine only) towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted as per condition of Clause no 1A on page 33 of the contract document.
4. स्वीकृति पत्र जारी होने के 30 दिनों के भीतर, आप AAI, एक निष्पादन गारंटी को पृष्ठ संख्या 1 पर खंड 32 की शर्त के अनुसार जमा करेंगे। रुपये की राशि के लिए 29,71,279/- (रुपए उन्तीस लाख इकहत्तर हजार दो सौ उन्चासी) केवल बैंक ग्वारंटी के रूप में प्रोफार्मा पर अनुबंध अनुबंध के ग्यारहवें पर परिशिष्ट में जोड़ा गया।
4. Within 30 days of issue of acceptance letter, you shall submit to AAI, a Performance Guarantee as per condition of clause 1 on page no. 32 for an amount of Rs. 29,71,279/- (Rupees Twenty Nine Lakh Seventy One Thousand Two Hundred Seventy Nine only) in the form of Bank Guarantee on the Proforma appended at Appendix on XI of Contract Document.
5. आपको अधिनियम 1970 अनुबंध श्रम (विनियमन और उन्मूलन) के प्रावधान का अनुपालन करने का अनुरोध किया जाता है और अनुबंध श्रम (विनियमन और उन्मूलन) केंद्रीय नियम 1971 बाल श्रम (निषेध और नियमन) अधिनियम 1986, निर्माण श्रमिकों (रोजगार नियमन और सेवा की स्थिति) अधिनियम 1996, भवन और अन्य निर्माण श्रमिक कल्याण उपकर अधिनियम 1996, केंद्र और राज्य सरकार के निविदा और नियमों का जीसीसी 19 खंड के अनुसार पृष्ठ नंबर 72 पर जैसा बताया गया।
5. You are requested to comply with the provision of Contract labour (Regulation and Abolition) Act 1970 and contract labour (Regulation and Abolition) Central rules 1971 Child Labour (Prohibition & Regulation) Act 1986, Construction Workers (Regulation of Employment and Condition of Service) Act 1996, Building and other construction Workers Welfare Cess Act 1996 as specified in Clause 19 on page no 72 of GCC of tender and rules of Central and State Government.
6. आपको प्रबंधक इंजिनियर (सिविल) से संपर्क करने का भी निर्देश दिया जाता है, तत्काल वह साइट को आपके हाथ में लेने का प्रबंध करेगा।
6. You are also directed to contact AGM(Engg. - Civil), immediately who will arrange to hand over the site to you.
7. कृपया ध्यान दें कि काम करने के लिए अनुमत समय 240 (दो सौ चालीस) दिन होगा और इसी पत्र के जारी होने के बाद 10 वें दिन से गणना की जाएगी।
7. Please note that the time allowed for carrying out the work shall be 240 (Two Hundred Forty) Days and same shall be reckoned from the 10th day after the issue of this letter.
8. अनुबंध के संबंध में कोई और पत्राचार आम तौर पर अभियंता प्रभारी को संबोधित किया जाना चाहिए।
8. Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-Charge.

Contd. P/3.....

J. General Manager (Civil)

238

Contractor

9. कृपया रसीद को स्वीकार करें और स्वीकृति के एक टोकन के रूप में अधोहस्ताक्षरी पर हस्ताक्षर करने के बाद इसके साथ संलग्न इस पत्र की डुप्लिकेट प्रतिलिपि वापस करें।
9. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

आपको धन्यवाद।

Thanking you.

भवदीय

Encl: i) Bill of Quantities
ii) Form III

संयुक्त महाप्रबंधक (अभि - सिविल)

N.O.O. copy forwarded for kind information to :

- i. Airport Director, AAI, NSCBI Airport, Kolkata
- ii. GM (E-C), AAI, NSCBI Airport, Kolkata
- iii. GM (F & A), AAI, NSCBI Airport, Kolkata
- iv. Jt. GM(E-E), AAI, NSCBI Airport, Kolkata
- v. AGME(C), AAI, NSCBI Airport, Kolkata
- vi. The Assistant Labour Commissioner (C) - II, 2nd M S Building, 5th Floor, Nizam Palace, 234/4, A.J.C Bose Road, Kolkata - 700 020.
- vii. PF Commissioner, DK Block, Sector-II, Salt Lake City, Karunamoyee, Kolkata, West Bengal 700091

मेन
07.04.19
(सिवब्रत सेन)

संयुक्त महाप्रबंधक (अभि - सिविल)

भा. वि. प्रा., ने. सु. च. ब. अ. विमानपत्तन, कोलकाता-52

General Manager (CMI)

239

Contractor

Tender Id: 2018 AAI 14239 1

Author: AGM (Engg. Civil) Airports Authority of India, NSCB Airport, Kolkata - 700052

Name of Work: Reconstruction of Broken Slab of Bay No. 3 and 4 at NSCBI Airport, Kolkata.

Contract No: AA/KOL/ENG(C)/CMD-I/Bay 3 & 4/2018 AA_14239


SCHEDULE OF WORK / ITEM(S)

Sl.No	Description of Work / Item(s)	No. of Qty	Units	L & K BUILDERS	
				Rate	Amount
1.00	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material within airport premises, as per direction of Engineer-in-charge.	533.00	cum	100.00	53300.00
2.00	Demolishing cement concrete manually/ by mechanical means including disposal of material within airport premises as per direction of Engineer - in - charge. (a) Nominal concrete 1:3:6 or richer mix (l/c equivalent design mix)	3195.00	cum	850.00	2715750.00
3.00	Demolishing cement concrete manually/ by mechanical means including disposal of material within airport premises as per direction of Engineer - in - charge. (b) Nominal concrete 1:4:8 or leaner mix (l/c equivalent design mix)	1600.00	cum	50.00	80000.00
4.00	Demolishing dry brick pitching in floors, drains etc. including stacking of serviceable material and disposal of unserviceable material within airport premises.	1600.00	cum	50.00	80000.00
5.00	Excavation in soil with hydraulic excavator l/c cutting and loading in tippers, trimming, bottom and side slope in accordance with requirements of lines, grades and cross-section and transporting and unloading the surplus soil within all lifts and load within airport premises. a) All kinds of soil.	8880.00	cum	120.00	1065600.00
6.00	consolidation of subgrade by power road roller of minimum 8 to 10 tonnes capacity for graded/excavated/dressed surface l/c making good the undulations and re-rolling the subgrade as per direction of E-I-C.	10650.00	sgm	5.00	53250.00
7.00	Supplying and filling in plinth with fine sand (YELLOW) under floors, foundation trench etc. including watering, ramming, consolidating and dressing complete. (Note : Nothing extra shall be payable for filling sands in subgrade and foundation trenches)	2130.00	cum	1400.00	2982000.00

10/20

~~Contrast~~

8.00	Construction of Granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per particular specification and as directed by Engineer-in-Charge. With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	3730.00	cum	1700.00	6341000.00
9.00	Providing and laying spreading and compacting graded stone aggregate (Size range 53 mm to 0.075 mm) to wet Mix Macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub-base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and direction of Engineer-in-Charge.	2863.00	cum	2100.00	5592300.00
10.00	Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS : 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batch plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tone vibratory roller, finishing and curing etc. complete as per direction of engineer-in - charge.	1800.00	cum	3500.00	5600000.00
11.00	Providing and laying transparent (1st quality) polythene sheet (separation membrane) 200 microns thick on the base course with overlaps of not less than 50mm longitudinally and 75mm transversely complete as per directions and satisfaction of Engineer-in-charge.	10650.00	sqm	35.00	372750.00
12.00	Providing and laying Pavement Quality Concrete (PQC) produced in a batching plant having a Characteristic Flexural Strength i.e. minimum flexural strength of 4.1 Mpa at 28 days using 350 Kg of (Portland Pozzolana Cement), fine aggregate, grade stone aggregates of 40 mm nominal size in appropriate proportion as per specification and job mix formula, laid in panels as per drawing / design as approved by the Engineer-In-Charge using manual method including making necessary provision for expansion joint, curing, etc. complete as per direction of Engineer -in-Charge and particular specifications. The item for execution shall also include the following operations: i) Mechanically cutting dummy joints 3 mm wide X 1/3rd thickness of slab which is subsequently widened to 10 mm for the top 25 mm depth and construction joints 10 mm wide X 25 mm deep as per specification. ii) Filling sealant in dummy, construction and expansion joints including providing close-cell Polyethylene foam back-up rod, and painting side of joints with primer, etc. complete (to be paid separately under item 13 & 14.) (Note: cement content considered in this item is @ 350 kg/cum. Excess/less cement used as per design mix is payable /recoverable separately). Note:- ii) Prior to start of work the job mix for PQC shall be got designed by the agency from the laboratory approved by AAI and the cost of mix design shall be borne by the agency and nothing extra is payable on this account.	4792.50	cum	5490.00	26310825.00


[Signature] Engineer-in-Charge (Civil)

24.06.19

Contractor

13.00	Providing and laying in position polysulphide sealant of approved make conforming to BS-5212-1990 or IS: 11433-1995. In expansion / construction/dummy joints including rounding off edges, applying 2 coats of approved primer primer compatible with the brand of polysulphide and preparing the surface and applying masking tape along the edge of joint to prevent accidental spillage of sealant on top surface and to give neat finish to the sealant and removing the masking tape after application of sealant etc. Complete as per direction of Engineer-In-Charge & particular specification. [Note : For purpose of payment, quantity (Length X Width X Depth) of Polysulphide sealant only will be, measured.] unit cum a) Expansion Joints of size 25 mm wide and 10 mm deep over 30 mm dia closed-cell Polyethylene fume back-up rod, as per manufacturers specification and sketch at Appendix-A'	192500.00	cum	1.00	192500.00
14.00	Providing and laying in position polysulphide sealant of approved make conforming to BS-5212-1990 or IS: 11433-1995. In expansion / construction/dummy joints including rounding off edges, applying 2 coats of approved primer primer compatible with the brand of polysulphide and preparing the surface and applying masking tape along the edge of joint to prevent accidental spillage of sealant on top surface and to give neat finish to the sealant and removing the masking tape after application of sealant etc. Complete as per direction of Engineer-In-Charge & particular specification. [Note : For purpose of payment, quantity (Length X Width X Depth) of Polysulphide sealant only will be, measured.] unit cum a) Construction Joints / dummy joints / contraction joints of size 10 mm wide and 10 mm deep over 12 mm dia closed cell Polyethylene fume back-up rod, as per manufacturers specification and sketch at Appendix-A'	459200.00	cum	1.00	459200.00
15.00	Providing and laying in position for expansion joints, 25mm thick pre-cut synthetic joint filler board of approved make conforming to IS : 1838 (Part 3) - 2011, 45 mm from top (to be removed at the time of filling of polysulphide sealant), complete as per particular specifications and direction of Engineer In Charge. (Note: Mode of measurement shall be length of joint multiplied by depth of filler board including pre-cut portion.)- unit m2	350.00	sqm	1250.00	437500.00
16.00	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	632.00	sqm	300.00	189600.00
17.00	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Suspended floors, roofs, landings, balconies and access platform	152.00	sqm	300.00	45600.00
18.00	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more.	70800.00	Kg	58.00	4106400.00
19.00	Steel work welded in-built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	200.00	Kg	100.00	20000.00
20.00	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level : 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size).	76.00	Cum	3600.00	273600.00

242
04.01.19

[Signature]
J. Gopal Prasad (CND)

21.00	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note: - Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately). All works upto plinth level	472.00	Cum	5200.00	2454400.00
-------	---	--------	-----	---------	------------

Total in Figures

59425575.00

Lowest Amount Quoted BY: L K BUILDERS(59425575.00)

16/11/20

Contract Manager (Civil)

Normative approach to compare the cost of Terminal Building:

The ceiling of per sqm expenditure in the matter of normative approach in 2016 was Rs 65000/ sqm (mark it A) as per AERA guidelines (Annexure A).

Total cost of extension of Terminal building with Apron and Cut-Outs filling which includes Operational Charge, GST, Corporate Environment Responsibility, Contingency is **123 crores** as per Annexure B.

Total cost of extension of Terminal building without Apron and Cut-Outs filling and excluding Operational Charge, GST, CER, Contingency is 77.42(extension of Terminal Building) +3.48 (Consultancy Charge) = **80.9 crores** as per **Annexure C**. Cost of cut out filling and roadworks are modification works that's why those works are excluded here.

Area of extension is 4281(extension in International side) + 4281(two level Basement extension in International side) +1606 (extension in domestic side) +1606 (two level basement extension in domestic side)= **11774 sqm** as per Annexure D. So per square meter cost is (809000000/11774) = **Rs 68711** (mark it B) as per **January 2026** which is proposed date of completion as per the Project Information File. Enhancing the ceiling of normative approach in 2016 to bring it as per 2026 (i.e 10 years advance) by increasing it @4.2% p.a x 10 i.e 42% , the value comes out to 65000*1.42= **Rs. 92,300 /-** (mark it C).

Extra specification over specifications as per AERA Guidelines

Sl no	Extra specification over Normative approach	Cost/sqm	Remarks
1	Pile foundation having 30 mtr deep	10371	Table 1
	Total	10371	

Note: Table 1 is on the next page

These cost per square meter have been taken from previous projects and reference has been enclosed. After deducting per square meter cost for all extra specifications, per square meter cost comes as 68711- 10371 =**Rs 58340**. **Cost per square meter as per 2026 comes as Rs 58340** which is less than C i.e **less than the maximum ceiling of Rs. 92300/- in normative approach as per 2026**, hence it is justified.

*File
for Exe
(E-L)*

*H
AGM(E-L)*

Table 1 (Pilling work)			Reference
Award cost in 2008	129.06	cr	point no 12 of Annexure F
adding 4.2% compound escalation the equivalent cost in 2026(multiply the award cost with $(1+.042)^{18}$ i.e 2.097)	270.65	cr	"Z"
after deducting taxes for pre GST era cost comes(divide Z by 1.12)	241.65	cr for 233000 sqm	
cost /sqm	0.001037138	cr	

Annexure - A

Annexure-411

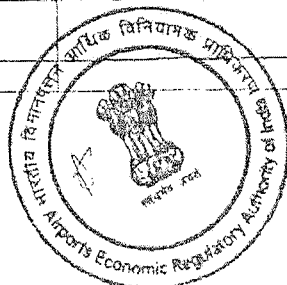
Overall cost of Terminal and Pavement (Apron, Taxiway, Runway) considered by the Authority		
Sl.no	Item and its scope	Ceiling Cost per Sq.M
1	<p>Construction of Terminal Building: Terminal Building, fully Air-conditioned and meeting the building code for fire alarm, firefighting, water supply and sanitary.</p> <p>Substance Equipment for Power supply including Standby generating units and related system.</p> <p>Passenger facilitation including flight information display and security surveillances, directional and information signage etc.</p> <p>Airlines related services of check-in, CUTE, CUSS, Baggage reconciliation system.</p> <p>Equipment namely in-line X-ray screening, standalone screening, required numbers of Baggage conveyors both for arrival and departure, Escalators, Travellators and Elevators and passenger Boarding Bridges. Any other passenger services, Aircraft operational services as part of Terminal process facilities.</p> <p>The cost indicated is exclusive of Land cost, diversion of facilities and site development namely earth filling cost, EB deposit for their line and demand but inclusive of IDC, taxes for finished Terminal.</p>	Rs 65000
2	<p>Construction of Pavement (Apron Taxiway, Runway): construction of pavement for Code E Aircraft excluding earth filling as part of site development and soil stabilization. For Code F Aircraft or any other design load the Airport operator shall justify with the cost of additional volume of concrete</p>	Rs. 4700

Notes

- Finishes (floor & ceiling) and the shape of the building selected may vary from one Airport to another. As the Public Project – Airport is managed by its Board of Directors the management is free to select the design finishes & specification. Authority expects the JV Company to evaluate various alternatives finished and its corresponding cost benefits that accrue to users in adoption of higher finishes. Selection of finishes, specifications shall be driven by "Value for money principles." The rationalized cost indicated above has taken into account various type of flooring, ceiling cost, other variables.
- Consultation with the concessionaire and users to be ensured as per AERA Direction and policy.
- The Airport operator is expected to determine the cost as per publicly available standard like CPWD norms for scheduled items and market rate analysis for non-schedule items.
- The Authority has considered the above bench mark cost as prudent and "value for money" cost as of April 2016. The cost index for Civil and Electro- mechanical works published by Government can be considered for future construction as appropriate.
- The aeronautical element of above cost will be applied for aeronautical service tariff determination and the above cost is applicable for all major airports.



New International Terminal Building Salient features, Scope, Finish and its cost break up- Cochin Airport				
Sl.no	Approved Scope	Type or specification	Cost break up INR Crore	Remarks / Comments
1	Site Development (earth filling)	Yes		Inclusive in terminal cost
2	Terminal building 1,50,000 SQ. M	3 level (0 to +2 level)	460.99	Separate utility building of 4000 Sq.M
2A	Civil Works RCC + Steel frame	Column free check in and security hold		RCC Framed Column span 12 to 25 M
2B	False ceiling Type			
i	General Public area	Special shape and finish All area		Inclusive
ii	Toilets area	All area		Inclusive
iii	Office area	All area		Inclusive
2C	Floors Finishes -Type			
i	General Public Floors	12mm specially made vitrified Johnson		Inclusive
ii	Toilets Floors	12mm Johnson		Inclusive
iii	Office area Floors	10 mm standard Johnson		Inclusive
2D	Water supply system	Yes		Inclusive
2E	Sewerage treatment	Yes connected with existing system		0.65 MLD STB, 60 Lakhs litre UG tank Inclusive
3	Technical Features of Terminal Building		150.26	
3A	Internal electrification system	Yes		Inclusive
3B	Fire alarm & detection system	Yes		Inclusive
3C	Firefighting system, system	Yes		Inclusive
3D	Signage, Flight Information Display	Yes		Inclusive
3E	Air-conditioning and heating or Air-conditioning	3000TR		Inclusive
3F	Substation, AC Plants, other utility Building – SQ.M and part of Terminal or separate	4 DG Total 9MVA + Transformers		Inclusive
3G	Security surveillance system	Yes		Inclusive
3H	Furniture	Yes		Inclusive
3I	Trolley, Wheel Chairs	Yes		Inclusive
4	Other Equipment		142.44	
4(A)	Aerobridge (10 nos) +VGDS	TIANDA		
4(B)	Escalators (5 nos)	THYSSAN		Inclusive
4(C)	Elevators (16 nos)	THYSSAN		Inclusive
4(D)	Walkalators (total-meters in 3 sections)	THYSSAN for arrival and departure		Inclusive
4(E)	Baggage conveyors, carousal for arrival (90 M loop length, 5 nos expandable to 6 nos) and departure systems (3 island) 56 Check-in system)			Inclusive
4(G)	Other equipment – specify			
5	Airlines related interface and services		74.66	
5A	CUTE CUPPS CUSS BRS service			Inclusive



5B	Boarding Control service			Inclusive
5C	Passengers data interface with custom and immigration is part of Airlines IT or Airport CUTE			Inclusive
5D	In line screening of baggage	100%		
5E	Standalone X-ray and its screening	Provisioned		Inclusive
6	Car parking and approach road		108.58	
6A	Car park (multi-level or ground level)	Ground level	31.09	Inclusive
6B	Approach road including lighting	4 lane road	66.16	Length – 2.5 KM
6C	Railway over bridge		11.33	
7	Elevated Fly over	In front of terminal	34.57	
8	Apron and pavement –2.5 Lakhs Sq. meters	Code E + Dedicated Apron taxiway code F	165.10	
8A	Pavement Code E+F		108.39	
8B	Rubble ,soil stabilization road Highmast Apron lighting and AGLlighting		56.71	
9	Other services		13.00	
10	Horticatures, Landscape	Not extensive -Minimum		Inclusive
11	Boundary (Compound) wall (operational & others)	Partly enveloped terminal		Inclusive
12	Total likely project cost	As of August 2016	1149.6	12A+12B+12D
12A	Terminal total including equipment		828.35	Total of 2,3,4&5
12B	Apron and pavement including filling		165.1	Sl.no 8
12C	Apron taxiway –only pavement		108.39	Sl.no8A
12D	Carpark, elevated Fly over and other works		156.15	Sl.no 6,7 & 9
13	Abstract cost per Sq.m			
13A	Terminal including all E&M equipment	Total Terminal floor area 150000 +utility floor area 4000= 154000 Sq.M	Rs 53789 per Sq.m	
13B	Apron and taxiway for code E +Partly for Code F		Rs 4336 per Sq.m	Excluding earth filling and soil stabilization



Annexure - B

AIRPORTS AUTHORITY OF INDIA		
NSCBI AIRPORT, KOLKATA - 700 052		
Abstract of Cost		
Name of Work: Capacity Enhancement at Integrated Passenger Terminal of NSCBI Airport,		
Kolkata		
	Particulars	Amount
1	Subtotal of Civil Works including of Operational Charge, Consultancy Fee, 18% GST, 1% CER, 3% Contingency and PF,ESI	Rs. 1,16,00,00,000.00
2	Subtotal of Electrical Works excluding of Operational Charge, Consultancy Fee, 18% GST, 1% CER, 3% Contingency and PF,ESI	Rs. 5,31,55,395.00
	18% GST on Electrical Works	Rs. 95,67,971.10
	1% CER on Electrical Works	Rs. 5,31,553.95
	3% Contingency on Electrical Works	Rs. 15,94,661.85
	Grand Total	Rs. 1,22,48,49,581.90
	Say	Rs. 1,23,00,00,000.00

Attn.
Jr Exe (E-C)

AIRPORTS AUTHORITY OF INDIA
NSCBI AIRPORT, KOLKATA - 700 052
Civil Estimate

Annexure C

Item no	Description	Amount (Rs)	
1	Part I- Filling of Cut Outs of 1200 sqm (Civil parts)	₹ 6,87,92,856.08	C
	Part I- Filling of Cut Outs of 1200 sqm (Electrical parts)	₹ 5,31,55,395.00	D
2	Part II- (A)- Construction of international immigration and Security Check of 4281 sqm Part II-(B) Construction of new SHA with 4 no bus boarding gates of 1606 sqm	₹ 77,42,22,224.00	E
3	Part III- Construction of airside vehicular lane. Width of each lane 3.75 mtr so total width of road 3.75x5=18.75 mtr. Length of new construction is 150 meter. So area of new road construction 18.75x145=2718.75sqm say 2800 sqm	₹ 2,80,37,163.75	F
	Total amount for 3 parts	₹ 92,42,07,638.83	G
	Add consultancy fee as 4% of estimated cost i.e C.	₹ 3,48,42,089.75	H
	Subtotal-I(C+D)	₹ 95,90,49,728.58	I
	Add Operational Charge as 5% on total cost of work i.e C	₹ 4,35,52,612.19	J
	Subtotal-II(E+F)	₹ 1,00,26,02,340.77	K
	Add GST 18% on Subtotal-II	₹ 18,04,68,421.34	L
	SubTotal-III (SubTotal I + 18%GST)	₹ 1,18,30,70,762.11	M
	Add Component of CER @ 1% mentioned in TI 12/2019 on estimated cost without GST on 'G'	₹ 1,00,26,023.41	N
	Sub Total IV(I+J)	₹ 1,19,30,96,785.52	O
	Add Contingency@ 3% on 'I'	₹ 3,57,92,903.57	P
	Sub Total-IV (Sub Total - III + 3% Contingency)	₹ 1,22,88,89,689.09	Q
	Grand Total	₹ 1,22,88,89,689.09	R
	Say	₹ 1,23,00,00,000.00	S

[Signature]
 Jt. Executive (E-C)

[Signature]
 Manager (E-C)

Dy. GM (E-C)

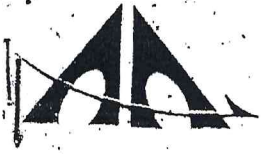
769415/2021/O/o APD(K)

ABSTRACT OF COST

Name of Work: Capacity Enhancement at Integrated Passenger Terminal of NSCBI Airport, Kolkata

Sl. No.	Item Description	Amount	Remarks
SH-I	Internal Electrical Installations	20,104,995.00	ii Refer ACRs
SH-II	HVAC Works	20,467,868.00	iii This part of estimate is for the modification works inside T-1 such as covering cut outs providing 02 nos. new installation, removing 01 no. calculator etc
SH-III	Escalators	9,577,626.45	
SH-IV	Fire Fighting and FDAS	2,678,613.78	
	Sub Total	52,629,103.23	
	Add: Labour Cess @ 1%	526,291.03	
	Total	53,155,394.26	

[Signature]
 05/03/2021.
 BGM (EE) III.



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

Annexure D

योजना/519/1.6/NSCBI/2016

08 फरवरी 2019

विमानपत्तन निदेशक,
भारतीय विमानपत्तन प्राधिकरण,
कोलकाता विमानपत्तन,
कोलकाता

महा प्रबन्धक (अभियांत्रिकी-सिविल),
भारतीय विमानपत्तन प्राधिकरण,
कोलकाता विमानपत्तन,
कोलकाता,

विषय: नेताजी सुभाष चंद्र बोस अंतरराष्ट्रीय विमानपत्तन, कोलकाता में एकीकृत यात्री टर्मिनल पर क्षमता वृद्धि से संबंधित स्कोप ऑफ वर्क (Scope of Work)।

नेताजी सुभाष चंद्र बोस अंतरराष्ट्रीय विमानपत्तन, कोलकाता में एकीकृत यात्री टर्मिनल पर क्षमता वृद्धि से संबंधित स्कोप ऑफ वर्क (Scope of Work) की अनुमोदित प्रति, इस पत्र के साथ आवश्यक कार्यवाही हेतु संलग्न है।

शंतनु फलनिकर
(शंतनु फलनिकर) 8/3/19
उप महाप्रबन्धक (वास्तु)

संलग्न:- SOW की अनुमोदित प्रति

GFM (E&C Dept)

आंतरिक प्रतिलिपि

1. का. निदेशक (अभि.) पूर्वी क्षेत्र/ का. निदेशक (योजना)/का. निदेशक (प्रचालन)
2. महाप्रबन्धक (योजना)/ महाप्रबन्धक (वास्तु)
3. सदस्य (योजना) के व्यक्तिगत सहायक



**AIRPORTS AUTHORITY OF INDIA
(DIRECTORATE OF PLANNING)**

**SCOPE OF WORK FOR CAPACITY ENHANCEMENT AT INTEGRATED PASSENGER
TERMINAL OF NSCBI AIRPORT, KOLKATA**

1. BACK GROUND

Kolkata is the 5th busiest Airport in the country after Delhi, Mumbai, Bangalore and Chennai. Traffic handled by the Airport in 2017-18 was 19.72 million at growth rate of over 25 %. The existing Terminal Building is capable of handling 26 MPPA and is likely to saturate by 2019-20. Construction of New Terminal Building will be taken up after the finalization of Master plan by M/s L&B.

2. PROPOSAL

Due to phenomenal increase in passenger and Aircraft traffic the existing terminal gets heavily congested during the peak hours. To provide relief to the passengers till the new Terminal building is constructed, to increase SHA area and boarding gates, expansions and modification of the existing Terminal Building is proposed. The proposal was discussed with APD Kolkata during the L&B presentation held on 16.11.2018.

Hence, the following scope of work is prepared for obtaining in-principle approval from the Competent Authority for the preparation of estimates to obtain AA & ES.

3. PROPOSED SCOPE OF WORK

Following modifications are proposed to maximize efficiency of existing Integrated Passenger Terminal:

1. Provision of additional 1 number departure entry gate and construction of connecting bridge to check in area.
2. Construction of new SHA with 4 number bus boarding gates, Airside Kerb, and road connecting to existing road network as per attached layout having total SHA area of 1606 sqm.
3. Construction of Swing gates and partitions as per layout plan to increase the availability of aerobridge in dual use configuration for international portion of integrated terminal building to maximize usability for domestic flight operations to total 14 aerobridge where 6 aerobridges will be used based on demand.
4. Increase in departure security hold capacity by constructing additional metal deck construction of 781.91 sqm, removal of existing travelator D2, D3, & D4 as the same is not used by majority passengers, it is also proposed to provide escalator to access departure upper floor at grid 36 as per layout as existing access is from one corner of terminal building. The corresponding increased availability in area for domestic operation as per new layout will be for aerobridge no 9-10, 11-12, 13-14 will be 1422.66 sqm, 1898.44 sqm and 942.39 sqm respectively.
5. Construction of International Emigration and security check along with security hold area as per attached layout having area of 4281 sqm.

CIVIL WORKS

- I. Construction of 1606 sqm SHA along with toilets, and all other civil work as per drawing.
- II. Construction of all civil works related to elevators as per manufacturer's specification.
- III. Construction of Airside Kerb along with 5 lane road for proposed Bus Lounge.
- IV. Integration of new SHA Block with the existing terminal Building.
- V. All Specifications shall be the same as of the existing domestic bus lounge.
- VI. All area of proposed expansion in terminal building shall be accessible to differentially abled persons.

701444/20/O/o APD(K)

A. Electrical Works

- I. Provision of internal lighting matching with specifications of existing domestic bus lounge.
- II. Provision of additional pictographs and modification of associated pictographs.
- III. Augmentation of power supply, if any

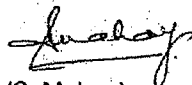
B. Miscellaneous works

- I. Demolition of portion of old domestic terminal building.
- II. Diversion of services, if any, like waterline, electrical and other cables etc.
- III. Provision of intercom services, IT integration.
- IV. Provision of HVAC and firefighting systems in the proposed structure.
- V. Concept level and execution level safety assessment, if any required, shall be done simultaneously before commencement of work.
- VI. Any other work not listed above but necessary for operationalization of the facility.

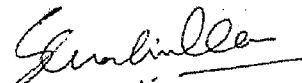
All the works are to be carried out as per DGCA CAR / ICAO / NBC documents

Encl:-

1. Departure level and Lower level floor plan showing proposed Layout plan.



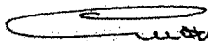
(S. Mahay)
GM (Arch)



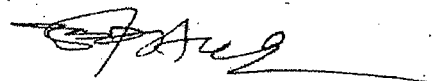
(Shantanu Phalnikar)
DGM (Arch.)



(V.S.P. Chinson)
GM (Plg)



(G.D. Gupta)
ED (Plg)

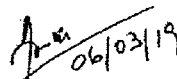


J.P. Alex
ED (Ops)



(K. Bhattacharyya)
ED (Engg) ER

APPROVED



(A.K. Phathak)
Member (Plg)

STATUS OF TENDER PACKAGES				
SR. NO	NAME PACKAGES	AWARDED COST (Rs. In crores)	PRESENT STATUS	REMARKS
1	2	3	4	5
	Work awarded to ITD-ITD Cem JV	1,602.60	Work in progress	Present progress is 73%. PDC Dec 11 (excluding Zone-1)
	M/s. Parsons Brinckerhoff - CSC	21.00		Work in progress
	Runway works	104.00		Work completed on 31.12.2010.
	CESC Deposits	7.29		Work in progress PDC 31.10.2011.
	Design Consultancy including Service Tax	77.76		Work in progress
	Misc. Electrical Work	0.68		Completed.
	Contingencies	59.48		
	Interest	70.00		
		1,942.81		Against the total A/A & E/S of 1943 crores
OTHER PACKAGES				
i)	Façade and Skylight Glazing	39.69	Awarded	Skylight Glazing and Work of Aluminium framing and glass fixing for fascade started. All the glass and Aluminum for envelope closure expected by June end. Present Progress 12%. PDC Dec 11
ii)	Water Treatment Plant	2.94	Awarded	Agency is mobilising the resources. PDC Dec 11
iii)	Sewage Treatment Plant	3.56	Awarded	
iv)	Baggage Handling System	54.94	Awarded	Shop Drgs are submitted by the agency for approval of AAI. Present Progress 10%. PDC Dec 11
v)	Building Automation Systems	26.91	Awarded	Work recently awarded. PDC Feb 12
vi)	External Lighting Works	3.04	Awarded	Work recently awarded. PDC Dec 11
vii)	Interior Glazing & Cladding Works	54.00	Award Process	Tender processed for award. PDC Feb 12
viii)	Check in, Custom & Immigration counters, Interior furnishing, SS Railings	65.00	NIT Action	NIT stage. Award by June 11. PDC Feb 12.
ix)	Chairs / XBIS / Security Equipments.	50.00	NIT Action	Action being taken up at CHQ PDC Feb 12
x)	Signages	4.97	NIT Action	NIT called. Award by June 11. PDC Dec 11
xi)	Aerobridges & VDGS	45.00	NIT Action	Action being taken up at CHQ PDC Feb 12
xii)	Furnishing Works / Art Work etc	5.64	Drawings / Design	NIT by July 11. PDC Feb 12.
xiii)	Special Light (Internal)	20.94	Drawings / Design	Tender stage. Award by June 11. PDC Dec 11
xiv)	Site development & Horticulture	5.00	Estimate	Package being submitted by the consultants as per the modified layout. Award by Aug 11. PDC Feb 12.

2,324.44

17.5.11

17.5.11

705914/2020/O/o APD(K)

~~ANNEXURE A~~

✓ Fax - (011) 24694574

महोदय, राष्ट्रीय राजमार्ग
परियोजना कार्यालय, कोलकाता

Date: 09.11.2011

COST PER SQM. OF INTEGRATED TERMINAL BUILDING
AT NSCBI AIRPORT - KOLKATA.

(Rs. in crores)

A. Revised Estimated Cost of Project : 2325.00

Less :

- Extension of Secondary Runway : (-) 104.00

- VIP Road Flyover : (-) 12.50

- Car Park & Land scaping (43,000 sqm) : (-) 127.00

B. Cost of Integrated Terminal Building : 2081.50

C. Area of Integrated Terminal Building : 2,33,000 sqm (excluding Car Park)

D. Cost per sqm. of ITB : Rs.89,335.00K B W
09/11/11For Eo (E-C)
01/05/2021Dhany
MTR (E-C)
01/05/2021AGM (E-C)
01/09/2021

→ E-D (Arch)

Annexure - F

NAME OF WORK:- "Construction of Integrated Passenger Terminal Building at NSCBI Airport, Kolkata"				
S.NO.	SUB-HEAD		Amt. For Civil	
1	EARTH WORK.	Rs.	31,35,10,380.00	I, I ₂
2	CONCRETE WORK.	Rs.	24,78,62,650.00	I ₃
3	R.C.C. WORK.	Rs.	494,60,40,781.00	I ₄
4	BRICK WORK.	Rs.	10,24,48,700.00	I ₅
5	MARBLE WORK	Rs.	56,00,57,608.00	I ₆ OW ₁
6	WOOD WORK	Rs.	5,07,22,550.00	I ₇
7	STEEL WORK	Rs.	224,89,99,520.00	I ₈
8	FLOORING.	Rs.	18,00,83,670.00	I ₉
9	ROOFING.	Rs.	161,76,79,700.00	I ₁₀
10	WATERPROOFING WORK	Rs.	13,22,42,480.00	I ₁₁
11	FINISHING.	Rs.	5,96,35,950.00	I ₁₂
12	PILE WORK	Rs.	129,05,56,200.00	I ₁₃
13	MISCELLANEOUS WORK	Rs.	3,31,99,330.00	I ₁₄
14	ROAD WORK	Rs.	14,47,59,680.00	I ₁₅
15	DISMENTLING AND DEMOLISHING	Rs.	(-) 2,00,000.00	I ₁₆
16	ALUMINIUM WORK	Rs.	167,12,07,790.00	I ₁₇
17	SANITARY FIXTURE	Rs.	7,47,97,580.00	I ₁₈
18	INTERNAL DRAINAGE SYSTEM	Rs.	12,35,18,790.00	I ₁₉
19	RAIN WATER PIPING	Rs.	16,20,00,500.00	I ₂₀
20	INTERNAL WATER SUPPLY	Rs.	3,64,81,050.00	I ₂₁
21	SEWERAGE TREATMENT PLANT	Rs.	16,17,31,680.00	I ₂₂
22	EFFLUENT TREATMENT PLANT	Rs.	12,91,93,920.00	I ₂₃
23	WATER TREATMENT PLANT	Rs.	3,00,16,470.00	I ₂₄
TOTAL:-			143,62,51,949.00	I ₂₅

Rupees One thousand four hundred thirty one crores ~~four~~ sixty five lacs
fifty one thousand nine hundred forty nine only. *Adm*

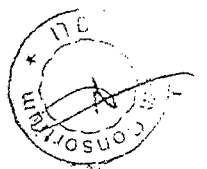
2/4
C - nil
I - Twenty five
O - one
OW - one
G.M. ENGG (KOL. PROJ) / CONTRACTOR

Summary (c)-1

25/6/18

25/6/18

CI-NIL, I-NIL, O-NIL



Appendix - IV

*Study of Operations and Maintenance
Expenses*

of

Netaji Subhash Chandra Bose
International Airport, Kolkata
(Second Control Period: 2016-21)

December 2021



TABLE OF CONTENTS

LIST OF TABLES AND FIGURES	3
1. OBJECTIVE OF THIS STUDY	4
1.1. Introduction.....	4
2. WORK PERFORMED.....	6
2.1. Terms of Reference	6
2.2. Methodology	6
3. OPERATION AND MAINTENANCE EXPENSES PROPOSED BY NSCBIA, KOLKATA FOR THE SECOND CONTROL PERIOD.....	9
3.1. Analysis of approved O&M expenses and O&M expenses submitted by AAI.....	9
3.2. Analysis	10
4. HISTORICAL BENCHMARKING AND TREND ANALYSIS.....	11
4.1. Trend Analysis of O&M Expenses of First and Second Control Period	11
4.2. Summary	11
4.3. Analysis of O&M expenses in the Second Control Period	13
4.4. AAI's estimation of O&M expenses for FY 2020-21.....	20
4.5. Summary of conclusions.....	21
5. ANALYSIS OF AAI'S CHQ EXPENSES TO NSCBIA, KOLKATA.....	22
5.1. Trend Analysis of CHQ Expenses in the Second Control Period.....	22
5.2. Analysis of Admin and General Expenses - CHQ submitted by AAI.....	23
5.3. Summary of conclusions.....	25
6. ALLOCATION OF O&M EXPENSES ACROSS AERO AND NON-AERO	27
6.1. Introduction to segregation of expenses.....	27
6.2. Examination of segregation and allocation by AAI.....	27
6.3. Conclusion	29
7. OVERALL SUMMARY OF THE STUDY	30
7.1. Operation and Maintenance Expenses proposed by NSCBIA, Kolkata for the Second Control Period	30
7.2. Historical benchmarking and trend analysis	30
7.3. Analysis of Apportionment of AAI's CHQ Expenses to NSCBIA, Kolkata	31
7.4. Allocation of O&M expenses across aero and non-aero.....	31
7.5. Conclusion	31

LIST OF TABLES AND FIGURES

Table 1: O&M expenses approved by the Authority in the Second Control Period	9
Table 2: O&M expenses submitted by AAI in the Second Control Period	9
Table 3: Comparison between CAGR of First and Second Control Period.....	11
Table 4: Comparison of O&M per PAX and per ATM between FY 2016-17 and FY 2019-20.....	13
Table 5: Comparison between payroll costs approved by the Authority and submitted by AAI.....	14
Table 6: Comparison between administrative and general expenses approved by the Authority and submitted by AAI	16
Table 7: Comparison between repair and maintenance expenses approved by the Authority and submitted by AAI	17
Table 8: R&M analysis vis-à-vis opening gross block.....	18
Table 9: Comparison between utilities and outsourcing expenses approved by the Authority and submitted by AAI	19
Table 10: Comparison between other outflows approved by the Authority and submitted by AAI	20
Table 11: Analysis of payroll costs - CHQ.....	22
Table 12: Analysis of admin and general expenses - CHQ	22
Table 13: Break-up of CHQ expenses submitted by AAI	23
Table 14: Break-up of staff costs at CHQ submitted by AAI.....	23
Table 15: Break-up of admin and general expenses at CHQ submitted by AAI.....	24
Table 16: Break-up of repair and maintenance expenses at CHQ submitted by AAI.....	25
Table 17: Break-up of utilities and outsourcing expenses at CHQ submitted by AAI.....	25
Table 18: Break-up of other expenses at CHQ submitted by AAI.....	25
Table 19: General principles of O&M expense categorization	27
Table 20: Principles of classification and allocation used by AAI.....	27
Table 21: Allocation ratios of common expenses as submitted by AAI.....	29
Table 22: Summary of allocation ratios submitted by AAI for the Second Control Period	29
Table 23: Allocation ratios approved by the Authority for the Second Control Period	29
Table 24: Efficient O&M expenses for the Second Control Period as per the study	31
Figure 1: Approach for this study.....	6
Figure 2: CAGR of O&M expenses (FCP and SCP).....	12
Figure 3: O&M expenses per PAX	12
Figure 4: O&M expenses per ATM.....	13
Figure 5: Payroll costs in the Second Control Period.....	14
Figure 6: Administrative and general expenses in the Second Control Period	15
Figure 7: R&M expenses in the Second Control Period.....	17
Figure 8: Utility expenses in the Second Control Period.....	19
Figure 9: Other Outflows in the Second Control Period.....	20

1. OBJECTIVE OF THIS STUDY

1.1. Introduction

Netaji Subhash Chandra Bose International Airport (NSCBIA), Kolkata is owned and operated by the Airports Authority of India (AAI), a *Miniratna* Category-1 Public Sector Enterprise. AAI was constituted by an Act of Parliament and was established in 1995 through the merger of erstwhile National Airports Authority and International Airports Authority of India. The merged entity—AAI was entrusted with the responsibility of creating, upgrading, maintaining and managing civil aviation infrastructure in India, both on ground and in air space.

NSCBIA, Kolkata is one of the ‘major airports’ notified by Airports Economic Regulatory Authority of India under the provisions of the AERA Act 2008. Pursuant to the AERA Act 2008, AERA issued guidelines for the purpose of determination of aeronautical tariffs for major airports. NSCBIA, Kolkata had submitted Multi Year Tariff Proposal (MYTP) for the Second Control Period from FY 2016-17 to FY 2020-21. AERA issued the order for the Second Control Period on 27 November 2017.

AERA has adopted the hybrid till approach for determination of tariff of NSCBIA, Kolkata. As per the hybrid till approach, 30% of the non-aeronautical revenues are to be used to cross-subsidize the aeronautical revenues, i.e., the Aggregate Revenue Requirement. Tariffs for aeronautical services under the hybrid till approach are based on the various building blocks, i.e. aeronautical Regulatory Asset Base (RAB), aeronautical depreciation, aeronautical operational expenses and aeronautical tax.

Establishing efficient Operation and Maintenance (O&M) expenses is important for the effective execution of tariff determination for aeronautical services. Across airports in India, the O&M expenditure has consistently been increasing, driven by investments in expansion and modernisation of the airports.

The objective of the study is to understand and analyse the O&M expenses of NSCBIA, Kolkata. The detailed analysis of O&M expenses is expected to help in establishing whether the existing expense levels are over or under the efficient expense levels. This will help in assisting the Authority in determining the efficient costs for O&M for the purpose of tariff determination at NSCBIA, Kolkata.

Accordingly, AERA decided to conduct a study on efficient O&M expenses for true-up of the Second Control Period. The analysis of various components of O&M expenses from FY 2016-17 to FY 2019-20 has been done based on the trial balances. For FY 2020-21, the projections submitted by AAI were examined.

As part of this study, the following have been examined/ referred:

- i. The AERA Act, 2008 with its amendment in 2019
- ii. Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011 dated 28 February 2011
- iii. AERA Order No. 23 / 2017-18 dated 27 November 2017 [In the matter of

determination of aeronautical tariffs in respect of Netaji Subhash Chandra Bose International Airport (NSCBIA), Kolkata, for the Second Control Period (01.04.2016 to 31.03.2021)]

- iv. Previous tariff orders of other airports
- v. Trial Balances, clarifications, and details received from NSCBIA, Kolkata

2. WORK PERFORMED

2.1. Terms of Reference

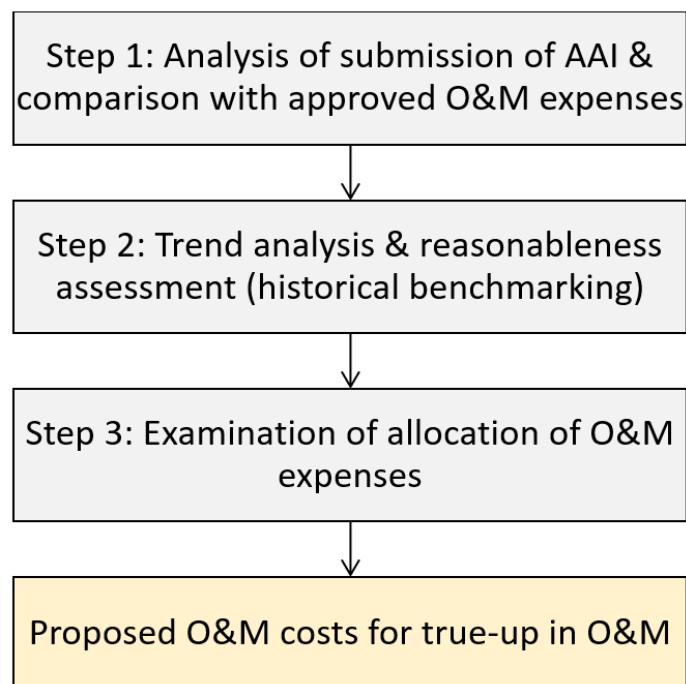
AERA has outlined the scope of work for a study on efficient O&M expenses and segregation of O&M expenses between aeronautical and non-aeronautical in clauses 3.1 (v) and 3.1 (vi) of Schedule 1 of its RFP No. 02/2020-21 for engagement of consultants to assist AERA in determination of tariffs for aeronautical services at NSCBIA, Kolkata, which state:

- “3.1 (v) – Asset / OPEX segregation between Aero and Non-Aero”
- “3.1 (vi) – Examine and recommend efficient costs for O&M as part of tariff determination process.”

2.2. Methodology

The steps elaborated below have been followed for determining the efficient O&M expenses at NSCBIA, Kolkata in this study.

Figure 1: Approach for this study



Step 1: Analysis of submission of NSCBIA, Kolkata

As a first step, assessment of the O&M expenses has been done based on the inputs shared by AAI. The trial balances of NSCBIA, Kolkata from FY 2016-17 to FY 2019-20 were examined to verify the expenses incurred during the Second Control Period. The expenses for FY 2020-21

are as per the projections submitted by the AAI. The reasonableness of the operational expense projections for FY 2020-21 has been assessed based on these projections itself. The operator has submitted O&M expenses under the following heads:

- **Payroll costs:** Includes the following expenses:
 - Salaries and wages (basic pay, dearness allowance, and house rent allowance)
 - Overtime expenses
 - Other staff benefits (employee perks, EL encashment etc.)
 - Medical expenditure
 - Provident fund contributions
 - Apportionment of CHQ expenses
- **Administrative and general expenses:** Includes the following expenses:
 - Rent, rates, and taxes (rent on office building, import license, and taxes on vehicles)
 - Insurance (vehicle, and plant & machinery insurance)
 - Advertising and publicity
 - Office expenses
 - Telephone charges
 - Printing and stationery
 - Legal expenses
 - Travelling expenses
 - Watch and ward expenses
 - Municipal tax
 - Hiring of manpower
 - Financing charges (apportionment of interest on loan taken at CHQ level)
 - Collection charges on UDF
 - Consultancy charges
 - Apportionment of admin (non-employee related overhead expenses) for CHQ
- **Repair and maintenance (R&M) expenses:** Includes the following expenses:
 - R&M for civil works
 - R&M for electrical works
 - R&M for vehicles
 - R&M for furniture and fixtures
 - R&M for computers, IT, and hardware
 - Annual maintenance contract (AMC) charges
- **Utilities and outsourcing expenses:** Include the following expenses:
 - Power charges (net of recovery)
 - Horticulture expenses
 - Upkeep expenses
 - Hire charges (cars, jeeps, etc.)
- **Other outflows:** Includes the following expenses:
 - Consumption of stores and spares
 - POL expenses

Step 2: Trend analysis & reasonableness assessment (historical benchmarking)

In order to understand the change / variation of the various elements of the O&M expenses, a trend analysis has been done for the First Control Period as well as the Second Control Period for the aeronautical portion of O&M expenses, as per AAI's submission.

The objective of the same is to understand the long term growth rates in these expenses and also the correlation between the year-on-year change in these expenses vis-à-vis the passenger traffic data. The study attempts to analyse the reasons for variance in the level and growth of O&M expenses as submitted by AAI for the Second Control Period in its MYTP vis-a-vis what was approved in the previous tariff orders for NSCBIA, Kolkata. The study attempts to understand whether AAI has been prudent in managing these expenses in line with the increase in passenger and ATM traffic. The major expenses submitted by AAI were studied in detail to assess the reasonableness of the same.

Step 3: Examination of allocation of O&M expenses

As the final step for establishment of the efficient O&M expenses for NSCBIA, Kolkata, the allocation of common expenses across aeronautical and non-aeronautical components by AAI has been analysed. Subsequently, wherever necessary, an alternate allocation principle has been suggested.

3. OPERATION AND MAINTENANCE EXPENSES PROPOSED BY NSCBIA, KOLKATA FOR THE SECOND CONTROL PERIOD

3.1. Analysis of approved O&M expenses and O&M expenses submitted by AAI

3.1.1. The Authority had approved O&M expenses of Rs. 1,706.7 Cr for the Second Control Period as shown in the table below:

Table 1: O&M expenses approved by the Authority in the Second Control Period

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	2021	Total
Payroll costs – CHQ	23.0	26.5	28.4	30.3	32.5	140.7
Payroll costs – non CHQ	127.9	147.5	157.1	167.4	178.3	778.2
Pay roll costs (A)	150.6	172.5	183.9	196.1	209.0	912.1
Repair & maintenance (B)	87.9	82.4	89.7	97.0	105.3	462.3
Utilities & outsourcing expenses (C)	74.5	63.8	62.0	63.6	65.2	329.1
Admin and general expenses - CHQ	18.8	18.5	19.5	20.4	21.4	98.6
Admin and general expenses - non CHQ	10.4	11.0	12.1	13.2	14.5	61.2
Admin. & other expenses (D)	29.2	29.5	31.5	33.6	35.9	159.7
Other outflows (E)	1.1	1.1	1.2	1.3	1.5	6.2
Total operating expenditure (A to E)	333.7	318.1	330.0	351.1	373.8	1,706.7

3.1.2. NSCBIA, Kolkata submitted O&M expenses of Rs. 2,110.47 Cr for the Second Control Period as shown in the table below:

Table 2: O&M expenses submitted by AAI in the Second Control Period

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	2021	Total
Payroll costs – CHQ	4.49	20.57	42.76	29.84	31.93	129.60
Payroll costs – non CHQ	120.75	128.33	143.13	160.18	171.39	723.76
Pay roll costs (A)	125.24	148.90	185.89	190.01	203.32	853.36
Repair & maintenance (B)	96.18	62.20	70.28	74.26	84.07	386.99
Utilities & outsourcing expenses (C)	68.33	64.56	62.15	64.62	68.21	327.86
Admin and general expenses –CHQ	57.10	53.59	32.78	93.15	97.80	334.43
Admin and general expenses – non CHQ	71.21	46.68	20.98	29.90	30.27	199.04
Admin. & other expenses (D)	128.31	100.27	53.76	123.04	128.07	533.47
Other outflows (E)	1.04	1.13	1.99	2.21	2.43	8.79
Total operating expenditure (A to E)	419.10	377.06	374.07	454.14	486.09	2,110.47

3.2. Analysis

- 3.2.1. A comparison of actual O&M expenses in Table 2 and approved O&M expenses in Table 1 shows that actual expenses are Rs. 403.77 Cr more than what was approved. Further analysis of the difference between approved and actual O&M expenses is detailed in the following chapters.
- 3.2.2. Further review of expense sub-heads shows that AAI's submission for pay roll costs, R&M expenses, utilities and outsourcing expenses was lower than what was approved by the Authority. AAI's submission on administrative and general expenses and other outflows is higher than what was approved by the Authority in the Second Control Period.
- 3.2.3. The biggest difference between approved and actual expenses can be attributed to administrative and general expenses – CHQ. While Rs. 98.60 Cr was approved by the Authority in the Second Control Period Order, AAI submitted actuals of Rs. 334.43 Cr for the Second Control Period.
- 3.2.4. Further, it is noted that while number of PAX and ATM fell significantly during FY 2020-21, O&M expenses submitted by AAI are higher in FY 2020-21 compared to FY 2019-20. The projections for FY2020-21 are discussed separately.

4. HISTORICAL BENCHMARKING AND TREND ANALYSIS

4.1. Trend Analysis of O&M Expenses of First and Second Control Period

4.1.1. In order to understand the change in various O&M expense heads over a longer period of time, the trend of O&M expenses has been analysed over the First and Second Control Period up to FY 2019-20 (as FY 2020-21 was impacted by the Covid-19 pandemics) against the change in traffic.

4.1.2. The following table provides a detailed summary comparing the trends between the First Control Period and Second Control Period in O&M expenses and in air traffic:

Table 3: Comparison between CAGR of First and Second Control Period

	First Control Period						Second Control Period					
FY ending March 31	2012	2013	2014	2015	2016	CAGR	2017	2018	2019	2020	CAGR (FY16 to FY20)	2021
PAX traffic (MPPA)	10.30	10.20	10.10	10.90	12.40	4.75%	15.82	19.89	21.88	22.02	15.44%	7.73
ATM (000's)	99.84	93.33	92.87	97.13	102.49	0.66%	124.15	148.80	162.03	165.76	12.77%	72.17
Operation and Maintenance Expenses (Rs. Cr)												
Payroll costs - non CHQ	91.30	100.00	116.10	123.30	125.90	8.36%	120.75	128.33	143.13	160.18	6.21%	171.39
Payroll costs - CHQ	17.70	39.30	20.50	35.30	22.50	6.18%	4.49	20.57	42.76	29.84	7.31%	31.93
Payroll costs (A)	109.00	139.30	136.60	158.60	148.40	8.02%	125.24	148.90	185.89	190.02	6.38%	203.32
Admin and general expenses - non CHQ	6.30	5.50	3.90	7.20	9.60	11.10%	71.21	46.68	20.98	29.90	32.85%	30.27
Admin and general expenses - CHQ	15.20	14.00	13.10	17.80	19.80	6.83%	57.10	53.59	32.78	93.15	47.28%	97.80
Admin and general expenses (B)	21.50	19.50	17.00	25.00	29.40	8.14%	128.31	100.27	53.76	123.05	43.03%	128.07
R&M expenses (C)	29.40	24.10	25.70	41.00	43.30	10.16%	96.18	62.20	70.28	74.26	14.44%	84.07
Utilities and outsourcing expenses (D)	15.60	30.70	49.30	61.80	74.30	47.73%	68.33	64.56	62.15	64.62	-3.43%	68.21
Other outflows (E)	0.80	1.00	0.80	0.80	1.00	5.74%	1.04	1.13	1.99	2.21	21.93%	2.43
Total O&M expenses (A to E)	176.30	214.60	229.40	287.20	296.40	13.87%	419.10	377.06	374.07	454.16	11.26%	486.10

4.2. Summary

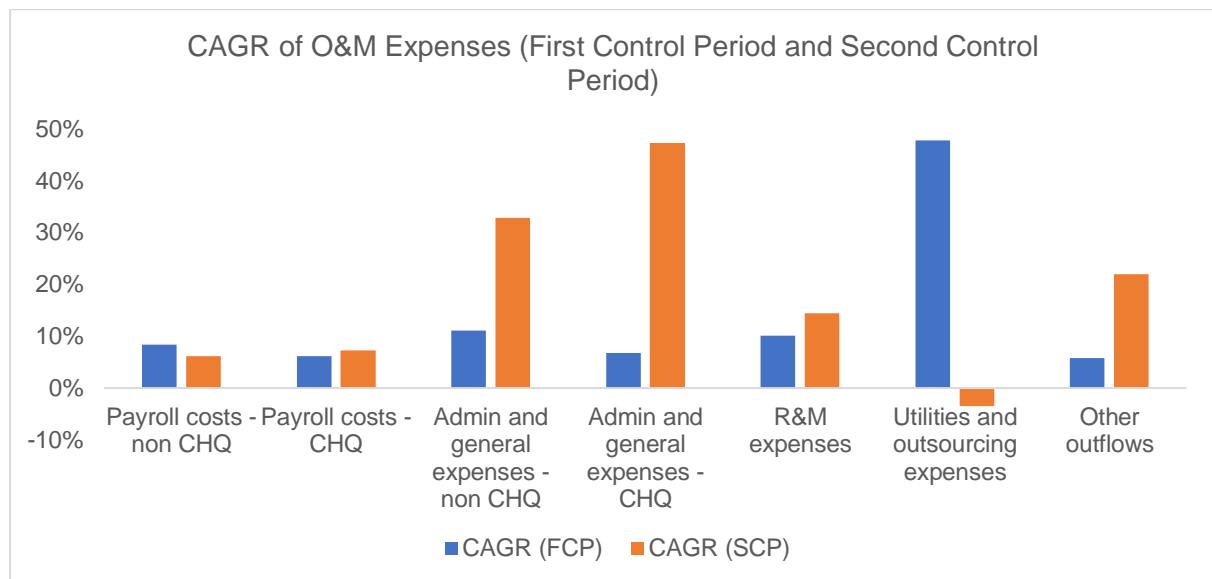
4.2.1. The CAGR of total operating expenses in the First Control Period and the Second Control Period is 13.87% and 11.26% respectively. Thus, there was a deceleration in O&M expenses growth in the Second Control Period. It may be noted that there is a steep increase in admin and general expenses – non CHQ from Rs. 9.60 Cr. in FY 2015-16 to Rs. 71.21 Cr. in FY 2016-17. The difference is attributable to the inclusion of financing charges of Rs. 49.51 Cr. (interest on bond) as part of the admin and general expenses – non-CHQ in FY 2016-17 by AAI. Moreover, Admin. & General Expenses of CHQ has increased in the Second Control Period as compared to First Control Period. This is because AAI allocates CHQ expenses across its airports based on revenue earned at

different airports. Since revenue of NSCBIA, Kolkata is high, allocation of the CHQ expenses has also been high.

4.2.2. In the First Control Period, CAGR of total O&M expenses has been higher than the CAGR in passenger and ATM traffic. However, in the Second Control Period, the O&M expense CAGR has been lower than CAGR of PAX and ATM traffic.

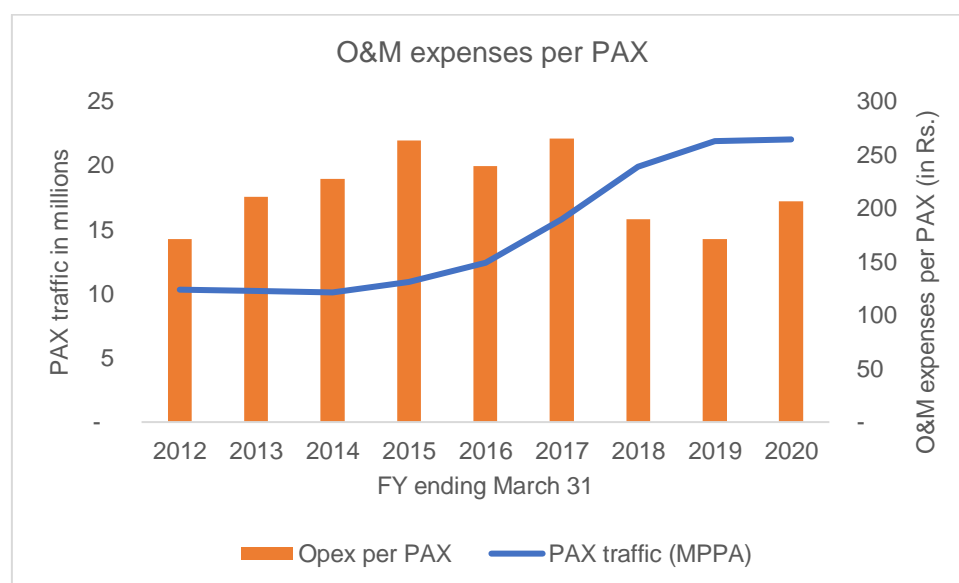
4.2.3. The following graph illustrates the difference between the CAGR during both these periods across various expense heads:

Figure 2: CAGR of O&M expenses (FCP and SCP)



4.2.4. The following graph compares the O&M expenses per PAX in the First Control Period and the Second Control Period with the passenger traffic:

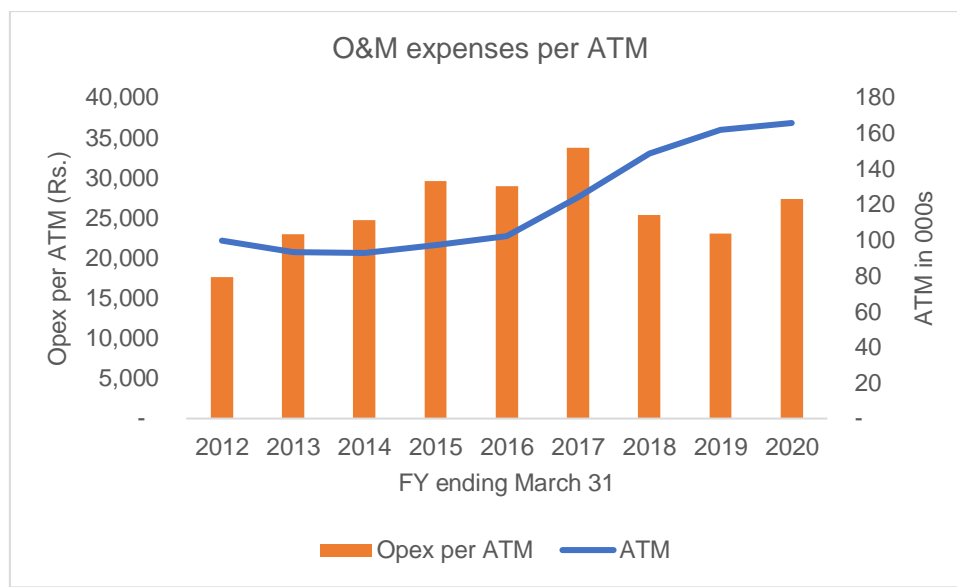
Figure 3: O&M expenses per PAX



4.2.5. It can be seen from the figure that the O&M per PAX is consistently decreasing in the Second Control Period, except in FY 2019-20, when it marginally increased due to the fall in PAX numbers due to the Covid-19 impact towards the end of the year.

4.2.6. The following graph compares the O&M expenses per ATM in the First Control Period and Second Control Period with the passenger traffic:

Figure 4: O&M expenses per ATM



4.2.7. It can be seen from the figure that the O&M expenses per ATM is decreasing in the Second Control Period, except in FY 2019-20 where the O&M expenses per ATM increased due to a fall in ATM traffic.

4.3. Analysis of O&M expenses in the Second Control Period

4.3.1. All O&M expenses other than utility and outsourcing expenses have seen a positive growth in the Second Control Period. Administrative and general expenses – CHQ and administrative and general expenses – non CHQ saw CAGR growth of 47.28% and 32.85% respectively

4.3.2. The following table compares the per PAX and per ATM O&M expenses in FY 2016-17 to those in FY 2019-20. Both the O&M expenses per PAX and O&M expenses per ATM have reduced between FY 2016-17 and FY 2019-20.

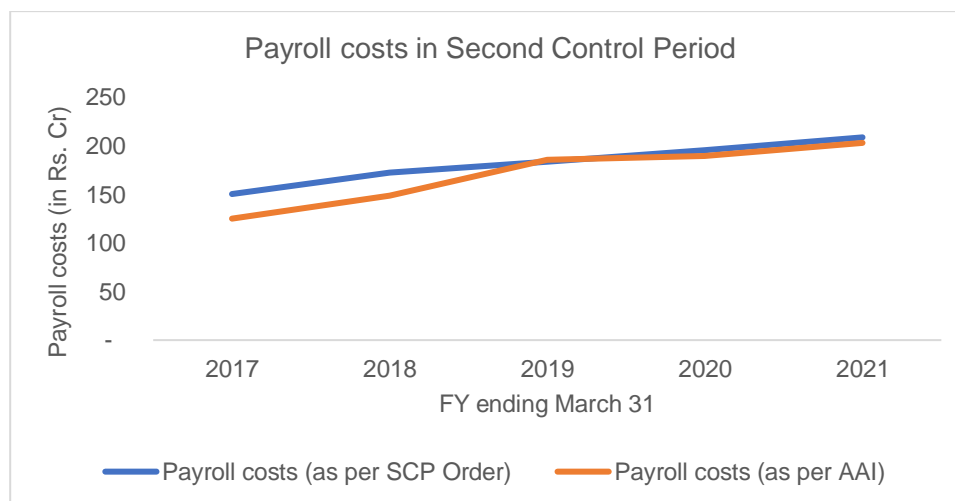
Table 4: Comparison of O&M per PAX and per ATM between FY 2016-17 and FY 2019-20

Parameter	2016-17	2019-20	Increase %
O&M expenses (Rs. Cr)	419.10	454.16	8.37%
PAX traffic MPPA	15.82	22.02	39.19%
O&M expenses per PAX (Rs/PAX)	264.92	206.25	(22.15%)
ATM ('000s)	124.15	165.76	33.52%
O&M expenses per ATM (Rs/ATM)	33,757.55	27,398.65	(18.84%)

Payroll Costs

- 4.3.3. The following figure compares the approved payroll costs as per the Second Control Period Order and the payroll costs submitted by AAI. The payroll costs submitted by AAI are lower than that approved by the Authority in the Second Control Period Order, for all years other than FY 2018-19.

Figure 5: Payroll costs in the Second Control Period



- 4.3.4. Payroll costs consist of the following sub-expenses:

- Salaries and wages (basic pay, dearness allowance, and house rent allowance)
- Overtime expenses
- Other staff benefits (employee perks, EL encashment etc.)
- Medical expenditure
- Provident fund contributions
- Apportionment of CHQ expenses

- 4.3.5. The following table examines the break-up of payroll costs approved by the Authority, and those submitted by AAI:

Table 5: Comparison between payroll costs approved by the Authority and submitted by AAI

	Approved in SCP Order						Submission by AAI					
FY ending March 31	2017	2018	2019	2020	2021	Total	2017	2018	2019	2020	2021	Total
Salaries and wages	77.81	89.72	96.00	102.72	109.91	476.15	72.42	68.25	82.38	87.11	93.21	403.37
Overtime expenses	6.34	7.31	7.67	8.06	8.46	37.83	5.55	4.30	4.02	8.90	9.52	32.29
Other staff benefits	23.32	26.88	28.23	29.64	31.12	139.18	22.69	35.20	35.41	39.53	42.29	175.12
Medical expenditure	12.49	14.40	15.41	16.49	17.64	76.42	12.35	13.19	13.37	15.38	16.46	70.75
Provident fund contributions	7.94	9.16	9.80	10.49	11.22	48.61	7.88	7.55	8.22	9.56	10.23	43.44
Less: Common expenses for Cargo and	(0.23)	(1.45)	(1.54)	(1.65)	(1.75)	(6.62)	(0.14)	(0.16)	(0.28)	(0.30)	(0.32)	(1.20)

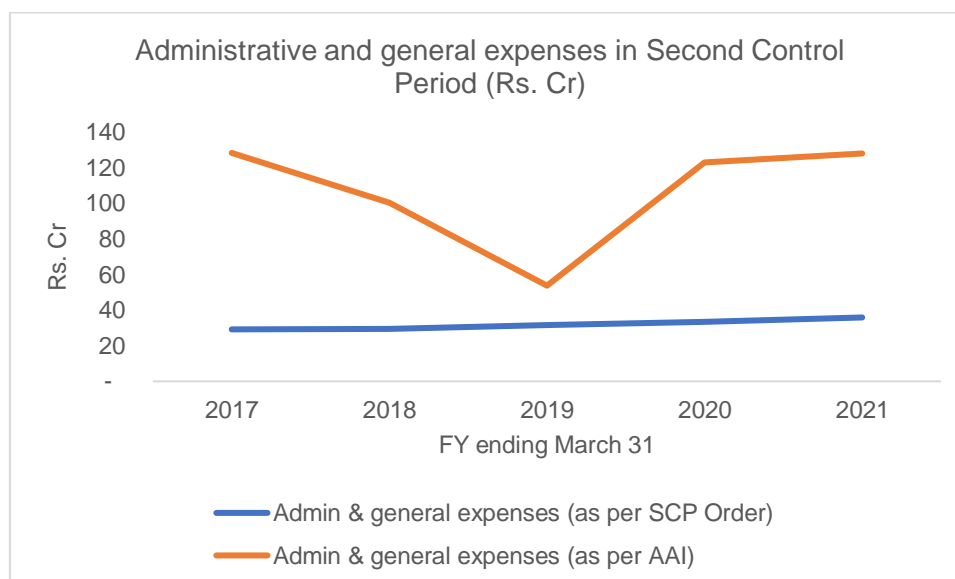
	Approved in SCP Order						Submission by AAI					
FY ending March 31	2017	2018	2019	2020	2021	Total	2017	2018	2019	2020	2021	Total
ANS employees												
Payroll costs - non CHQ	127.67	146.02	155.56	165.74	176.59	771.57	120.75	128.33	143.13	160.18	171.39	723.76
Payroll costs - CHQ	22.98	26.50	28.35	30.34	32.46	140.62	4.49	20.57	42.76	29.84	31.93	129.60
Total payroll costs	150.65	172.51	183.91	196.07	209.05	912.19	125.24	148.90	185.89	190.01	203.32	853.36

4.3.6. AAI's submission of payroll costs – non-CHQ and payroll costs – CHQ are lower than what was approved by the Authority. This is primarily because of the difference between approved salaries and wages and that submitted by AAI. Payroll costs – CHQ has been discussed later in the study.

Administrative and General Expenses

4.3.7. Figure 2 compares the approved administrative and general expenses as per the Second Control Period Order and that submitted by AAI. The expenses submitted by AAI are higher than the approved amounts for all tariff years. It may be noted that the actual expenses submitted by AAI reduced year by year till FY 2018-19, after which they increased. The difference between actuals and approved can largely be attributed to admin and general expenses – CHQ/RHQ, which is discussed later.

Figure 6: Administrative and general expenses in the Second Control Period



4.3.8. Administrative and general expenses comprise the following sub-expenses:

- Rent, rates, and taxes (rent on office building, import license, and taxes on vehicles)
- Insurance (vehicle, and plant & machinery insurance)
- Advertising and publicity
- Office expenses
- Telephone charges
- Printing and stationery
- Legal expenses
- Travelling expenses
- Watch and ward expenses

- Municipal tax
- Hiring of manpower
- Financing charges (apportionment of interest on loan taken at CHQ level)
- Collection charges on UDF
- Consultancy charges
- Apportionment of admin (non-employee related overhead expenses) for CHQ

4.3.9. The following table examines the break-up of administrative and general expenses approved by the Authority, and those submitted by AAI:

Table 6: Comparison between administrative and general expenses approved by the Authority and submitted by AAI

	Approved in SCP Order						Submission by AAI					
FY ending March 31	2017	2018	2019	2020	2021	Total	2017	2018	2019	2020	2021	Total
Rent and taxes	0.02	0.02	0.03	0.03	0.03	0.13	2.46	0.01	0.00	4.10	4.51	11.07
Insurance	0.03	0.02	0.02	0.02	0.03	0.13	0.11	0.06	0.07	0.08	0.09	0.41
Advertising and publicity	1.00	1.04	1.15	1.26	1.39	5.85	0.64	0.37	0.16	0.09	0.10	1.35
Office expenses	1.53	1.56	1.72	1.89	2.08	8.78	11.75	13.47	10.59	13.44	14.78	64.02
Telephone charges	0.43	0.44	0.48	0.53	0.58	2.46	0.48	0.25	0.38	0.30	0.33	1.75
Printing and stationery	0.25	0.26	0.28	0.31	0.34	1.44	0.19	0.16	0.19	0.51	0.56	1.62
Legal expenses	0.10	0.11	0.12	0.13	0.14	0.59	0.15	0.13	0.18	0.34	0.37	1.17
Travelling expenses	1.76	1.90	2.09	2.29	2.52	10.57	1.33	1.44	1.62	2.76	3.03	10.18
Watch and ward expenses	1.06	1.17	1.29	1.42	1.56	6.49	1.17	2.50	2.57	3.10	3.41	12.76
Municipal tax	0.57	0.57	0.57	0.57	0.57	2.85	1.35	0.74	0.98	0.98	1.08	5.13
Hiring of manpower	0.32	0.36	0.39	0.43	0.47	1.98	-	-	1.11	0.68	0.75	2.55
Financing charges	-	-	-	-	-	-	49.51	23.47	-	-	-	72.98
Collection charges on UDF	3.14	3.45	3.79	4.17	4.59	19.14	1.98	3.99	2.96	3.44	1.16	13.53
Consultancy charges	0.13	0.13	0.14	0.15	0.16	0.70	0.09	0.10	0.18	0.08	0.09	0.54
Administrative and general expenses – non CHQ	10.36	11.02	12.06	13.21	14.46	61.11	71.21	46.68	20.98	29.90	30.27	199.04
Administrative and general expenses – CHQ	18.82	18.53	19.45	20.43	21.45	98.67	57.10	53.59	32.78	93.15	97.80	334.43
Total Administrative and general expenses	29.18	29.55	31.51	33.63	35.91	159.78	128.31	100.27	53.76	123.04	128.07	533.47

4.3.10. While AAI's submission of administrative and general expenses – non CHQ are higher than what was approved by the Authority, the key differences are on account of inclusion of financing charges and increase in rent and taxes. Financing charges comprise of interest on loans that AAI has taken, which has been discussed in the next paragraph. The largest difference between and approved rents and taxes, and those submitted by AAI are in FY 2019-20 and FY 2020-21. This is due to an increase in administration fees for

enhancement and finance at the ATC. Since AAI has estimated FY 2020-21 expenses by applying a 10% growth over the FY 2019-20 expenses, this is reflected in FY 2020-21 as well. Administrative and general expenses – CHQ/RHQ has been discussed later in the study.

- 4.3.11. Para 14.13 of the Second Control Period tariff order proposed not to include financing charges in administration and general expenses as the expense consists of interest payments on long term debt. Therefore, the Authority may decide to exclude these expenses from O&M expenses for the Second Control Period.

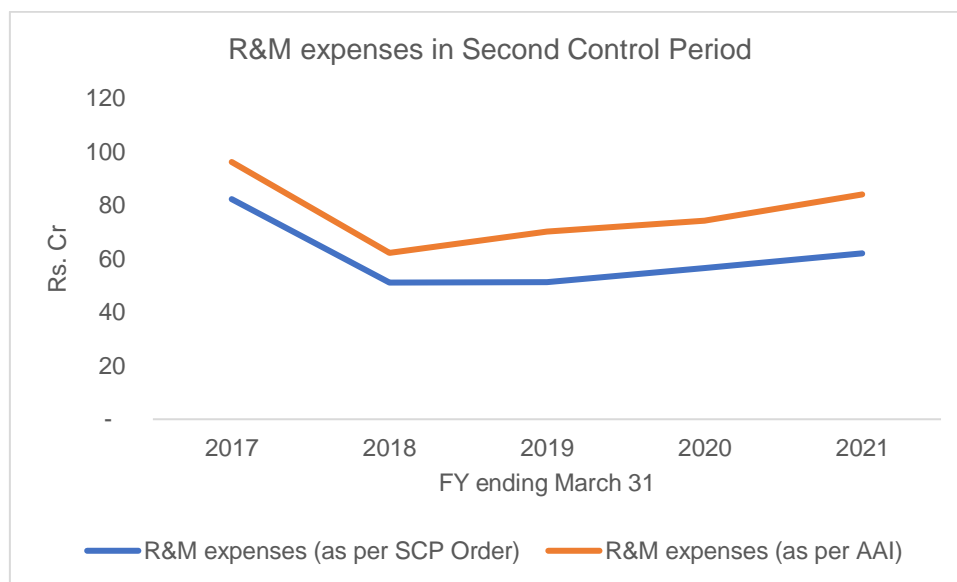
Repair and maintenance expenses

- 4.3.12. Repair and maintenance expenses consists of the following sub-expenses:

- R&M for civil works
- R&M for electrical works
- R&M for vehicles
- R&M for furniture and fixtures
- R&M for computers, IT, and hardware
- Annual maintenance contract (AMC) charges

- 4.3.13. The following figure compares the approved R&M expenses as per the Second Control Period Order and the R&M expenses submitted by AAI. The figure shows that the actual expenses submitted by AAI are higher than the approved amounts in the Second Control Period.

Figure 7: R&M expenses in the Second Control Period



- 4.3.14. The following table examines the break-up of R&M expenses approved by the Authority and those submitted by AAI:

Table 7: Comparison between repair and maintenance expenses approved by the Authority and submitted by AAI

FY ending March 31	Approved in SCP Order						Submission by AAI					
	2017	2018	2019	2020	2021	Total	2017	2018	2019	2020	2021	Total

	Approved in SCP Order						Submission by AAI					
FY ending March 31	2017	2018	2019	2020	2021	Total	2017	2018	2019	2020	2021	Total
Civil works	50.09	19.56	16.69	18.35	20.19	124.88	56.68	19.11	15.10	21.65	23.81	136.34
Plant and Machinery / Vehicle	1.02	1.00	1.10	1.21	1.33	5.65	1.13	1.74	1.20	1.62	1.79	7.47
Electrical Installations	27.12	27.04	29.74	32.72	35.99	152.61	29.12	32.12	45.14	40.62	44.68	191.68
Furniture, fittings, and electronics	4.09	3.47	3.81	4.2	4.62	20.21	9.26	9.24	8.84	6.72	7.40	41.45
AMC expenses	-	-	-	-	-	-	-	-	-	3.65	6.39	10.04
Total R&M Expenses	82.33	51.07	51.34	56.48	62.13	303.34	96.18	62.20	70.28	74.26	84.07	386.99

4.3.15. AAI's submission is higher than that approved amounts across all sub-expenses within R&M expenses. The difference is highest in R&M expenses for electrical installations and R&M expenses for furniture, fittings, and electronics.

4.3.16. The overall level of R&M expenses was analysed vis-à-vis the closing gross block of NSCBIA, Kolkata. The following table summarises R&M expenses as a percentage of the opening gross block in the Second Control Period:

Table 8: R&M analysis vis-à-vis opening gross block

Parameter (Rs. Cr)	2016-17	2017-18	2018-19	2019-20	2020-21
R&M expenses	96.18	62.20	70.28	74.26	84.07
Closing gross block	3,145.48	3,358.38	3,502.01	3,627.72	3,748.55
R&AM expenses (% of closing gross block)	3.06%	1.85%	2.01%	2.05%	2.24%

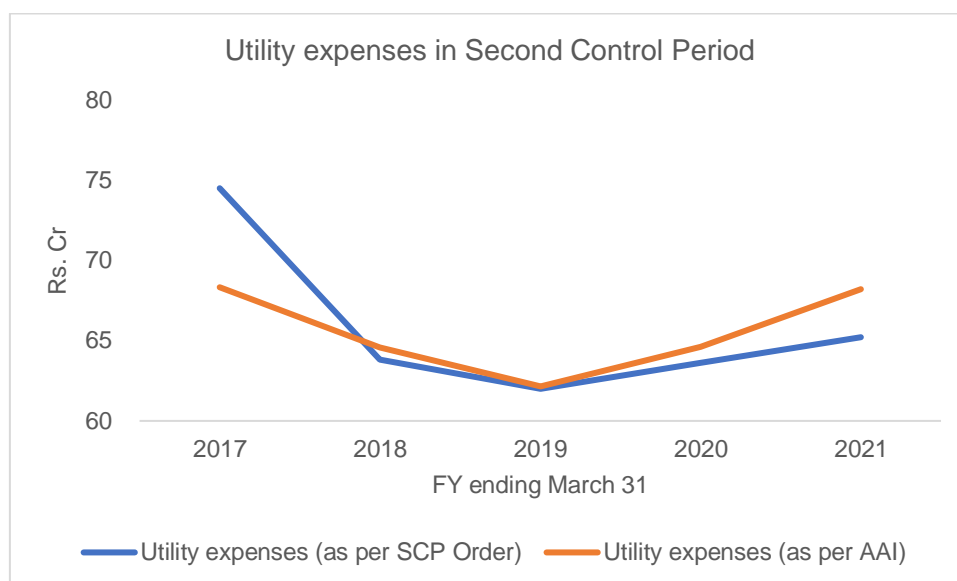
4.3.17. R&M expenses of NSCBIA, Kolkata range from 1.85% to 3.06% of the closing gross block. This is broadly in line with other major airports and seems to be reasonable.

Utility and Outsourcing Expenses:

4.3.18. Repair and maintenance expenses consists of the following sub-expenses:

- Power charges (net of recovery)
- Horticulture expenses
- Upkeep expenses
- Hire charges (cars, jeeps, etc.)

4.3.19. The following figure compares the approved utility expenses as per the Second Control Period Order and the utility expenses submitted by AAI. The actual expenses submitted by AAI are higher than the approved amounts for all tariff years of the Second Control Period other than FY 2016-17.

Figure 8: Utility expenses in the Second Control Period

4.3.20. The following table examines the break-up of utilities and outsourcing expenses approved by the Authority, and those submitted by AAI:

Table 9: Comparison between utilities and outsourcing expenses approved by the Authority and submitted by AAI

	Approved in SCP Order						Submission by AAI					
FY ending March 31	2017	2018	2019	2020	2021	Total	2017	2018	2019	2020	2021	Total
Power charges	61.74	49.93	46.73	46.73	46.73	251.86	53.33	47.50	40.43	40.99	42.22	224.48
Horticulture expenses	0.32	0.27	0.29	0.32	0.36	1.56	0.36	0.30	0.53	1.08	1.18	3.46
Upkeep expenses	10.31	11.34	12.48	13.73	15.10	62.95	13.37	16.29	20.85	22.31	24.54	97.35
Hire charges	2.14	2.30	2.53	2.79	3.07	12.83	1.27	0.46	0.33	0.25	0.27	2.58
Total Utilities and Outsourcing	74.51	63.84	62.03	63.56	65.25	329.20	68.33	64.56	62.15	64.62	68.21	327.86

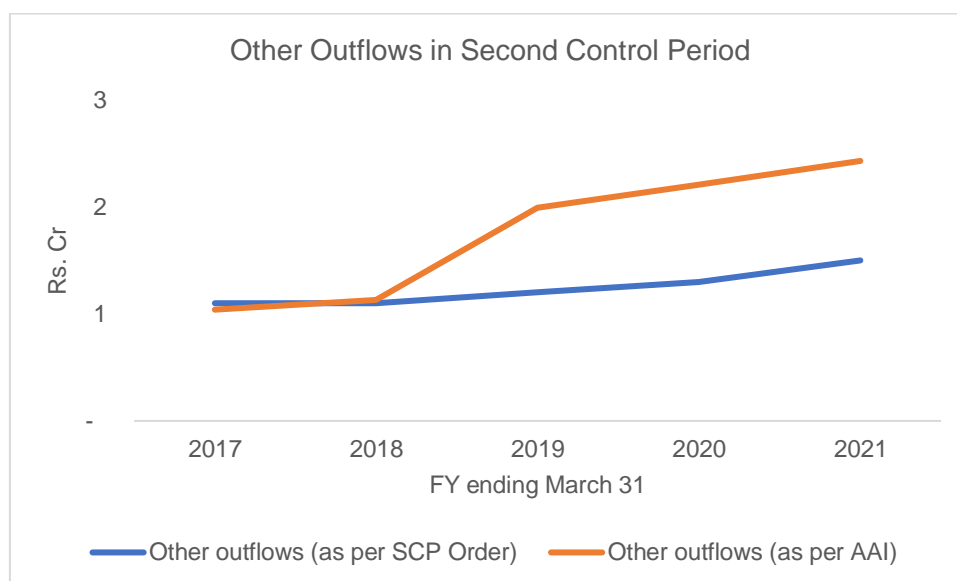
4.3.21. Within utilities and outsourcing expenses, there are significant differences between the approved and actuals for upkeep expenses. Upon analysis, it was found that the upkeep expenses increased because of the Environmental Support Services (ESS) and Mechanised Environmental Support Services (MESS) at NSCBIA, Kolkata.

Other Outflows:

4.3.22. Other outflows have further been examined. The expense consists of the following sub-expenses:

- Consumption of stores and spares
- POL expenses

4.3.23. The following figure compares the approved other outflows as per the Second Control Period Order and the other outflows submitted by AAI. The figure shows that the actual expenses submitted by AAI are higher than the approved amounts for all tariff years of the Second Control Period other than FY 2016-17.

Figure 9: Other Outflows in the Second Control Period

4.3.24. The following table examines the break-up of utilities and outsourcing expenses approved by the Authority, and those submitted by AAI:

Table 10: Comparison between other outflows approved by the Authority and submitted by AAI

	Approved in SCP Order						Submission by AAI					
FY ending March 31	2017	2018	2019	2020	2021	Total	2017	2018	2019	2020	2021	Total
POL	0.47	0.56	0.51	0.56	0.62	0.68	0.55	0.53	0.85	0.88	0.97	3.78
Consumption of stores and spares	0.60	0.56	0.71	0.78	0.86	5.55	0.48	0.60	1.15	1.32	1.46	5.01
Total other outflows	1.07	1.11	1.22	1.34	1.48	6.23	1.04	1.13	1.99	2.21	2.43	8.79

4.3.25. The primary difference between the approved outflows and outflows submitted by AAI is in POL expenses.

4.4. AAI's estimation of O&M expenses for FY 2020-21

4.4.1. AAI has estimated FY 2020-21 expenses by applying a growth rate over the FY 2019-20 expenses. In the case of payroll costs, AAI applied a growth rate of 7% over FY 2019-20 levels to estimate FY 2020-21 payroll costs. For other O&M expenses, AAI applied a growth rate of 10% on FY 2019-20 levels to estimate FY 2020-21 expenses.

4.4.2. FY 2020-21 was severely impacted by Covid-19 pandemic. The PAX numbers declined by 65% in FY 2020-21, from 22.02 million PAX in FY2019-20 to 7.73 million PAX in FY 2020-21. The ATM numbers declined by 56.46% in that year, from 1,65,760 in FY 2019-20 to 72,170 in FY 2020-21. This would imply that for a major part of this year, the airport facilities would have been shut or have remained under-utilized. While it is understood that fixed overheads, like manpower costs, would not have been impacted, there would be savings in other overheads like power costs, water charges, overtime,

repairs & maintenance.

- 4.4.3. Further, it is also noted that the overall O&M expenses growth in the Second Control Period (up to FY2019-20) is at a CAGR of 11.26%. However, considering the impact of the Covid-19 pandemic on the O&M expenses of airport operators, the growth rate used by AAI to estimate FY 2020-21 expenses may be reconsidered by the Authority.

4.5. Summary of conclusions

- 4.5.1. The overall O&M expenses submitted by AAI are higher than those approved by Authority in the Second Control Period order. The key reasons for these are (a) growth rates applied by AAI in projecting O&M expenses for FY2020-21 (b) apportionment of CHQ expenses of AAI to NSCBIA, Kolkata. Further, it can also be observed that the O&M expenses per PAX has shown a consistently downward trend from FY 2016-17 to FY 2018-19. The increase in O&M expenses per PAX in FY 2019-20 may be attributed to lower passenger traffic in February and March 2020 due to the Covid-19 pandemic.
- 4.5.2. R&M expenses of NSCBIA, Kolkata range from 1.85% to 3.06% of the closing gross block. This is broadly in line with other airports and seems to be reasonable.
- 4.5.3. Estimating O&M expenses for FY2020-21 by taking a 7% growth rate for payroll costs and a 10% growth rate for other O&M expenses over the actuals of FY 2019-20 is not appropriate, considering that traffic in FY 2020-21 was significantly lower due to the Covid 19 pandemic. The Authority may consider a 0% growth over FY 2019-20 expenses to estimate expenses of FY 2020-21.

5. ANALYSIS OF AAI'S CHQ EXPENSES TO NSCBIA, KOLKATA

5.1. Trend Analysis of CHQ Expenses in the Second Control Period

5.1.1. AAI manages 137 airports, of which 24 are international airports, 10 are Custom airport, and 103 are domestic airports.¹ AAI apportions its CHQ expenses to the various airports managed by it. The Authority sought additional details on CHQ expenses of AAI and its apportionment across AAI profit centres from AAI. Subsequently AAI submitted details regarding the same vide e-mail dated 17.11.2021 ("Revised CHQ & RHQ Allocation for the F.Y 16-17 to 19-20").

5.1.2. The following table compares the approved payroll costs – CHQ for NSCBIA, Kolkata with the submitted amounts:

Table 11: Analysis of payroll costs - CHQ

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	2021	Total
Payroll costs - CHQ submitted by AAI	4.49	20.57	42.76	29.84	31.93	129.60
Payroll costs - CHQ approved in SCP	22.98	26.50	28.35	30.34	32.46	140.62
Payroll costs – CHQ submitted by AAI (as % of approved)	20%	78%	151%	98%	98%	92%

Table 12: Analysis of admin and general expenses - CHQ

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	2021	Total
Admin and general costs - CHQ submitted by AAI	57.10	53.59	32.78	93.15	97.80	334.43
Admin and general - CHQ approved in SCP	18.82	18.53	19.45	20.43	21.45	98.67
Admin and general – CHQ submitted by AAI (as % of approved)	303%	289%	169%	456%	456%	339%

5.1.3. While payroll costs – CHQ submitted by AAI are 92% of what was approved in the Second Control Period, admin and general expenses – CHQ submitted by AAI are 339% of what was approved in the Second Control Period, with a significant year on year variation.

5.1.4. AAI has allocated payroll costs – CHQ, and admin and general expenses – CHQ between aeronautical and non-aeronautical costs using an allocation ratio of 95%:5%. However, it may be noted that as per para 14.8. of the Second Control Period Order, the Authority has decided to use an allocation ratio of 90%:10% for admin and general expenses – CHQ. It is recommended that the Authority adopts a methodology to allocate CHQ expenses into expenses that are related to airports and non-airport activities, and then allocate the CHQ expenses related to airports across AAI's profit centres on the basis of their respective revenues. The same is discussed in the subsequent sections.

¹ As per AAI website, accessed on 31 August 2021

5.2. Analysis of Admin and General Expenses - CHQ submitted by AAI

5.2.1. AAI submitted that the CHQ expenses after netting off revenue is apportioned across all AAI major airports based on their respective revenues. The following table analyses the Admin and General Expenses – CHQ submitted by AAI:

Table 13: Break-up of CHQ expenses submitted by AAI

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	Total
Staff Cost (CHQ employees) [A]	501.86	535.38	475.15	542.09	2,054.47
Admin and Gen Expenses [B]	45.63	52.23	80.77	61.19	239.82
Repair and Maintenance [C]	14.60	21.00	21.77	28.77	86.15
Utilities and Outsourcing [D]	35.66	23.98	31.29	35.23	126.17
Others [E]	47.09	23.89	11.03	27.64	109.65
Total Expenses [F = A to E]	644.84	656.48	620.01	694.93	2,616.26
Total Revenue [G]	353.48	411.63	484.22	304.20	1,553.53
Net Off (as taken tariff determination) [H = F – G]	291.36	244.85	135.79	390.73	1,062.73

5.2.2. From the above table it may be observed that staff costs comprise approximately 80% of the total CHQ expenses. The highest growth within CHQ expenses can be seen in repairs and maintenance expenses.

Staff Costs (CHQ)

5.2.3. The following table provides summarises the staff costs at CHQ submitted by AAI:

Table 14: Break-up of staff costs at CHQ submitted by AAI

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	Total
Salary and wages	135.80	147.08	171.10	185.15	639.13
Overtime	0.99	0.82	0.84	1.32	3.97
Other staff benefits	312.57	302.94	173.23	248.61	1,037.34
Medical expenditure	23.39	22.02	22.80	27.95	96.15
Retirement benefit & PF contribution	29.11	62.52	107.18	79.06	277.88
Total	501.86	535.38	475.15	542.09	2,054.47

5.2.4. With respect to the apportionment of pay and allowance costs incurred at the CHQ, the Authority has the following observations:

- AAI has considered pay and allowance costs of commercial department at CHQ as airport expenses, despite such expenses being non-airport related in nature.
- AAI has excluded pay and allowance costs of employees involved in ATM, CNS & Cargo department at CHQ while working out the allocation to AAI profit centres. However, AAI has not bifurcated the pay and allowance costs of common support service departments such as HR, finance, civil, terminal management (housekeeping), etc. between airport and non-airport related activities.
- AAI has considered 5% of the CHQ expenses (after netting off revenue) as non-airport related expenses. The Authority may consider a percentage share of expenses and apply it on total outflow of pay and allowances.
- Manpower of CHQ is also providing services to non-airport related activities such as ATC, CNS services at airports.

Considering the above facts and analysis, the Authority may take a view to exclude 20% of the payroll costs at CHQ as expenses related to support services such as ANS, and cargo, and expenses related to the Directorate of Commercial. The Authority may consider 80% of the payroll costs as aeronautical expenses.

Admin and General Expenses (CHQ)

5.2.5. The following table provides summarises the admin and general expenses at CHQ submitted by AAI:

Table 15: Break-up of admin and general expenses at CHQ submitted by AAI

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	Total
Insurance	3.15	5.33	4.76	16.45	29.68
Advt. and publicity	3.51	3.18	4.88	3.34	14.91
Office exp.	0.00	-	0.89	11.50	12.40
Telephone charges	0.30	0.33	0.31	0.20	1.14
Printing and stationary	0.66	1.05	1.13	0.96	3.82
Legal exp.	1.68	8.72	11.74	3.79	25.94
Travelling exp.	9.23	11.76	10.76	13.05	44.79
Upkeep exp.	0.50	0.63	0.20	0.13	1.46
Municipal exp, rent rate and taxes	0.32	0.36	0.33	0.34	1.36
Watch & ward exp.	0.40	0.93	1.09	1.45	3.87
Hiring of manpower	1.47	1.56	2.04	2.29	7.36
ATC admin fee and airport license fees	-	-	1.40	6.36	7.76
Import license, etc	1.25	2.42	0.09	0.03	3.79
Admission fee	-	-2.24	4.62	-	2.38
Interest & borrowing cost	15.78	9.11	4.35	-3.41	25.83
AOCC exp.	-	-	-0.00	0.00	0.00
Prior period exp.	-2.17	-0.09	-	-	-2.26
Other exp.	9.55	9.18	32.17	4.69	55.59
Total	45.63	52.23	80.77	61.19	239.82

5.2.6. With respect to the apportionment of admin and general expenses incurred at the CHQ, the Authority has the following observations:

- AAI's legal & arbitration expenses at CHQ level may need to be analysed and distributed to stations on a case-to-case basis. Since such details have not been provided by AAI, the Authority may consider excluding the same from the amount allocated to stations.
- The Authority may consider disallowing interest/penalties to Government of India at CHQ level, as stakeholders should not be burdened with interest/penalties paid to the Government of India, due to various lapses/delays on part of the airport operator.

Repair and Maintenance (CHQ)

5.2.7. The following table provides summarises the repair and maintenance expenses at CHQ submitted by AAI:

Table 16: Break-up of repair and maintenance expenses at CHQ submitted by AAI

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	Total
Civil	2.68	3.89	4.29	6.16	17.02
Electrical	1.54	1.90	2.75	2.83	9.02
Vehicles	0.49	0.19	0.65	0.36	1.69
Furniture & fixtures	0.20	0.62	0.01	0.02	0.84
Electronics	9.69	14.40	14.08	19.40	57.58
Total	14.60	21.00	21.77	28.77	86.15

Utilities and Outsourcing Expenses (CHQ)

5.2.8. The following table provides summarises the utilities and outsourcing expenses at CHQ submitted by AAI:

Table 17: Break-up of utilities and outsourcing expenses at CHQ submitted by AAI

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	Total
Electricity expenses	2.51	2.73	3.23	3.16	11.63
Consumption of stores and spares	0.36	0.38	2.55	2.34	5.63
POL	0.63	0.58	-	0.67	1.87
Fees paid to outsiders/consultancy charges	30.34	18.72	23.58	28.84	101.49
Hire charges car/jeep & others	1.82	1.57	1.92	0.24	5.55
Total	35.66	23.98	31.29	35.23	126.17

Other Expenses (CHQ)

5.2.9. The following table provides summarises other expenses at CHQ submitted by AAI:

Table 18: Break-up of other expenses at CHQ submitted by AAI

FY ending March 31 (Rs. Cr)	2017	2018	2019	2020	Total
Depreciation	7.77	9.61	11.01	14.01	42.40
CSR	32.91	14.28	0.02	13.62	60.83
Research & Development	6.42	-	-	-	6.42
Total	47.1	23.89	11.03	27.63	109.65

CHQ Expenses for FY 2020-21

5.2.10. AAI has stated that the actual CHQ expenses for FY 2020-21 are not available, and that the CHQ expenses for FY 2020-21 have been estimated by taking a 10% growth rate over that of FY 2019-20. This may not be appropriate considering that airports were not fully operating due to the Covid-19 pandemic in FY 2020-21. Due to the absence of actual CHQ expenses in FY 2020-21, the Authority may consider the FY 2020-21 CHQ expenses to be 95% of the actual CHQ expenses of FY 2019-20.

5.3. Summary of conclusions

5.3.1. Following are the conclusions regarding staff costs at CHQ expenses:

- AAI has considered pay and allowance costs of commercial department at CHQ as airport expenses, despite such expenses being non-airport related in nature.
- AAI has excluded pay and allowance costs of employees involved in ATM, CNS & Cargo department at CHQ while working out the allocation to AAI profit centres. However, AAI has not bifurcated the pay and allowance costs of common support service departments such as HR, finance, civil, terminal management (housekeeping), etc. between airport and non-airport related activities.
- AAI has considered 5% of the CHQ expenses (after netting off revenue) as non-airport related expenses. The Authority may consider a percentage share of expenses and apply it on total outflow of pay and allowances.
- Manpower of CHQ is also providing services to non-airport related activities such as ATC, CNS services at airports. The Authority may take a view to exclude 20% of the payroll costs at CHQ as expenses related to support services such as ANS, cargo and expenses related to the Directorate of Commercial. The Authority may consider 80% of the payroll costs as aeronautical expenses.

5.3.2. Following are the conclusions regarding admin and general costs at CHQ expenses:

- AAI's legal & arbitration expenses at CHQ level may need to be analysed and distributed to stations on a case-to-case basis. Since such details have not been provided by AAI, the Authority may consider excluding the same from the amount allocated to stations.
- The Authority may consider disallowing interest/penalties to Government of India at CHQ level, as stakeholders should not be burdened with interest/penalties paid to the Government of India, due to various lapses/delays on part of the airport operator.

5.3.3. AAI has stated that the actual CHQ expenses for FY 2020-21 are not available, and that the CHQ expenses for FY 2020-21 have been estimated by taking a 10% growth rate over the actual CHQ expenses of FY 2019-20. Since airports were not fully operational during the Covid-19 pandemic in FY 2020-21, this may not be appropriate. To estimate the CHQ expenses of FY 2020-21, the Authority may consider the FY 2020-21 CHQ expenses to be 95% of the actual CHQ expenses of FY 2019-20.

6. ALLOCATION OF O&M EXPENSES ACROSS AERO AND NON-AERO

6.1. Introduction to segregation of expenses

6.1.1. The following table summarizes the general principles for O&M expense categorization:

Table 19: General principles of O&M expense categorization

Expense Category	Expense Sub-Category / Description	Expense Classification
Manpower expenses	Salary, wages & bonus; Contribution to provident fund; Staff welfare expenses; New employee expenses	Common
A&G Expenses	Flood related expenses; Flood mitigation expenses	Aeronautical
	Rent; Rates and Taxes; Communication Expense; Travelling and Conveyance; Advertisement; Office Maintenance; Printing and Stationary	Common
	Auditor's Fees; Professional Charges	
	Insurance Costs; Bank Charges; Miscellaneous Expenses Scrap of assets; Foreign exchange loss; General charges Directors Sitting Fees; Rights Issue Expenses	
R&M Expenses	R&M costs for buildings, Plant & Machinery and Roads, Runways and culverts	Common
Other Expenses	Safety & Security expenses	Common
	Vehicle Running & Maintenance expenses	
	House Keeping expenses	

6.2. Examination of segregation and allocation by AAI

6.2.1. The classification of O&M expenses by AAI was found to be in line with the general principles discussed above. However, the basis for allocation of certain common costs needs to be analysed. The principles of classification followed by the airport operator are provided in the table below.

Table 20: Principles of classification and allocation used by AAI

Expense Category	Expense Sub-Category / Description	Expense Classification
Payroll costs	<ul style="list-style-type: none"> - Salaries and wages (basic pay, dearness allowance, and house rent allowance) - Overtime expenses - Other staff benefits (employee perks, EL encashment etc.) - Medical expenditure - Provident fund contributions - Staff recoveries - Apportionment of CHQ/RHQ expenses 	Common. Employee head count ratio was used to allocate between aeronautical and non-aeronautical

Expense Category	Expense Sub-Category / Description	Expense Classification
Admin & General Expenses	<ul style="list-style-type: none"> - Rent, rates, and taxes (rent on office building, import license, and taxes on vehicles) - Insurance (vehicle, and plant & machinery insurance) - Advertising and publicity - Office expenses - Telephone charges - Printing and stationery - Travelling expenses - Financing charges (apportionment of interest on loan taken at central level) - Consultancy charges - Apportionment of admin (non-employee related overhead expenses) for CHQ/RHQ 	Common: <ul style="list-style-type: none"> - TBLR was used for advertising - VEHR was used for insurance - EHCR was used for other expenses - 95% of CHQ/RHQ expenses was deemed aeronautical
	<ul style="list-style-type: none"> - Legal expenses 	Aeronautical
R&M Expenses	<ul style="list-style-type: none"> - R&M for civil works - R&M for electrical works - R&M for vehicles - R&M for furniture and fixtures - R&M for computers, IT, and hardware 	Common: <ul style="list-style-type: none"> - TBLR was used for electrical works - VEHR was used for R&M for vehicles - EHCR and EQTR was used for other R&M expenses
Utilities and outsourcing expenses	<ul style="list-style-type: none"> - Power charges - Water charges - Upkeep expenses 	Common: <ul style="list-style-type: none"> - TBLR was used for upkeep expenses - Electricity ratio was used for power and water charges
	<ul style="list-style-type: none"> - Watch and ward expenses 	Aeronautical
Other Outflows	<ul style="list-style-type: none"> - Consumption of stores and spares - POL expenses - Other miscellaneous expenses 	Common: <ul style="list-style-type: none"> - EHCR, and TBLR were used to allocate common expenses
	<ul style="list-style-type: none"> - Collection charges on UDF and PSF - Municipal taxes - Hire charges 	Aeronautical

6.2.2. The segregation of expenses carried out by AAI seems reasonable and is in line with the principles of segregation used by other AAI airports.

6.2.3. It may be noted that AAI has allocated various sub-expenses within O&M expenses based on the following ratios:

Table 21: Allocation ratios of common expenses as submitted by AAI

Particular	Ratios
Payroll Expenses	EHCR, 1EHCR (P&A)
Admin. And General Expenses	EHCR, TBLR, VEHR
Repair and Maintenance	EQTR, TBLR, VEHR, EHCR
Utilities and Outsourcing Expenses	Electricity
Other Outflows	EHCR and TBLR

Where:

- EHCR – Employee Head Count Ratio
- 1EHCR (P&A) – Employee Headcount Ratio excl. the security department
- TBLR – Terminal Building Ratio
- VEHR – Vehicle Ratio
- Electricity - Electricity ratio is based on the no. of units consumed by aero and non-aero departments.

6.2.4. A summary of the allocation ratios considered to be aeronautical based on the aforementioned ratios in AAI's submission is given below:

Table 22: Summary of allocation ratios submitted by AAI for the Second Control Period

Ratio (in %)	Aeronautical %
TBLR	94.35
EHCR	90.90
EQTR	93.07
VEHR	100

6.2.5. A summary of the allocation ratios considered to be aeronautical based on the aforementioned ratios in AAI's submission is given below:

Table 23: Allocation ratios approved by the Authority for the Second Control Period

Particulars	% Aeronautical Expense (excl. Cargo)
Apportionment of Admin CHQ expenses	90
Retirement benefits provided at CHQ in respect of employees at NSCBIA, Kolkata	95
TBLR	92.5
EQTR	96.7

6.3. Conclusion

6.3.1. It may be noted that the TBLR as per AAI submission is higher than that approved by the Authority in the Second Control Period Order. Thus, the Authority may consider using the approved allocation ratios to segregate common expenses.

7. OVERALL SUMMARY OF THE STUDY

7.1. Operation and Maintenance Expenses proposed by NSCBIA, Kolkata for the Second Control Period

- 7.1.1. A comparison of actual O&M expenses in Table 2 and approved O&M expenses in Table 1 shows that actual expenses are Rs. 403.77 Cr more than what was approved.
- 7.1.2. Further review of expense sub-heads shows that AAI's submission for pay roll costs, R&M expenses, utilities and outsourcing expenses was lower than what was approved by the Authority. AAI's submission on administrative and general expenses and other outflows is higher than what was approved by the Authority in the Second Control Period.
- 7.1.3. The biggest difference between approved and actual expenses can be attributed to administrative and general expenses – CHQ. While Rs. 98.60 Cr was approved by the Authority in the Second Control Period Order, AAI submitted actuals of Rs. 334.43 Cr for the Second Control Period.
- 7.1.4. Further, it is noted that while number of PAX and ATM fell significantly during FY 2020-21, O&M expenses submitted by AAI are higher in FY 2020-21 compared to FY 2019-20. The projections for FY2020-21 are discussed separately.

7.2. Historical benchmarking and trend analysis

- 7.2.1. The overall O&M expenses submitted by AAI are higher than those approved by Authority in the Second Control Period order. The key reasons for these are (a) growth rates applied by AAI in projecting O&M expenses for FY2020-21 (b) apportionment of CHQ expenses of AAI to NSCBIA, Kolkata. However, O&M expenses per PAX and per ATM are lower in FY2019-20 than in FY2016-17.
- 7.2.2. R&M expenses of NSCBIA, Kolkata range from 1.85% to 3.06% of the closing gross block. This is broadly in line with other airports and seems to be reasonable.
- 7.2.3. Estimating O&M expenses for FY2020-21 by taking a 7% growth rate for payroll costs and a 10% growth rate for other O&M expenses over the actuals of FY 2019-20 is not appropriate, considering that traffic in FY 2020-21 was significantly lower due to the Covid 19 pandemic. The Authority may consider a 0% growth over FY 2019-20 expenses to estimate expenses of FY 2020-21.

7.3. Analysis of Apportionment of AAI's CHQ Expenses to NSCBIA, Kolkata

7.3.1. Following are the conclusions regarding staff costs at CHQ expenses:

- AAI has considered pay and allowance costs of commercial department at CHQ as airport expenses, despite such expenses being non-airport related in nature.
- AAI has excluded pay and allowance costs of employees involved in ATM, CNS & Cargo department at CHQ while working out the allocation to AAI profit centres. However, AAI has not bifurcated the pay and allowance costs of common support service departments such as HR, finance, civil, terminal management (housekeeping), etc. between airport and non-airport related activities.
- AAI has considered 5% of the CHQ expenses (after netting off revenue) as non-airport related expenses. The Authority may consider a percentage share of expenses and apply it on total outflow of pay and allowances.
- Manpower of CHQ is also providing services to non-airport related activities such as ATC, CNS services at airports. Hence, the Authority may consider adjusting the pay and allowances accordingly.

7.3.2. Following are the conclusions regarding admin and general costs at CHQ expenses:

- AAI's legal & arbitration expenses at CHQ level may need to be analysed and distributed to stations on a case-to-case basis. Since such details have not been provided by AAI, the Authority may consider excluding the same from the amount allocated to stations.
- The Authority may consider disallowing interest/penalties to Government of India at CHQ level, as stakeholders should not be burdened with interest/penalties paid to the Government of India, due to various lapses/delays on part of the airport operator.

7.3.3. AAI has stated that the actual CHQ expenses for FY 2020-21 are not available, and that the CHQ expenses for FY 2020-21 have been estimated by taking a 10% growth rate over the actual CHQ expenses of FY 2019-20. Since airports were not fully operational during the Covid-19 pandemic in FY 2020-21, this may not be appropriate. To estimate the CHQ expenses of FY 2020-21, the Authority may consider the FY 2020-21 CHQ expenses to be 95% of the actual CHQ expenses of FY 2019-20.

7.4. Allocation of O&M expenses across aero and non-aero

7.4.1. It may be noted that the TBLR as per AAI submission is higher than that approved by the Authority in the Second Control Period Order. Thus, the Authority may consider using the approved allocation ratios to segregate common expenses.

7.5. Conclusion

7.5.1. After the above adjustments and reallocations discussed in the previous sections, the efficient O&M expenses for the Second Control Period have been considered as per the table below:

Table 24: Efficient O&M expenses for the Second Control Period as per the study

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Payroll costs – CHQ	4.34	19.89	41.34	28.85	28.85	123.26

FY ending March 31 (in Rs. Cr.)	2017	2018	2019	2020	2021	Total
Payroll costs – non CHQ	112.34	128.33	143.13	160.18	160.18	704.15
Payroll costs (A)	116.68	148.21	184.47	189.02	189.03	827.41
Repair and maintenance (B)	95.20	61.22	69.21	73.18	75.56	374.37
Utilities & outsourcing expenses (C)	67.71	63.84	61.22	63.61	63.61	320.00
Admin and general expenses – non CHQ	21.53	23.21	20.98	29.89	27.58	123.20
Admin and general expenses for CHQ	39.04	29.15	1.66	68.71	65.28	203.84
Admin & Other expenses (D)	60.57	52.36	22.64	98.6	92.86	327.04
Other Outflows (E)	0.97	1.12	1.98	2.17	2.17	8.41
Total O&M Expenses (A to E)	341.13	326.75	339.52	426.58	423.23	1,857.23

7.5.2. AAI had proposed a total O&M expenditure (aeronautical) of Rs. 2,110.47 Cr. for the Second Control Period. Based on this study, the proposed O&M expenditure is Rs. 1,857.23 Cr. for the Second Control Period, thus resulting in a reduction of **Rs. 253.24 Cr.** for the Second Control Period. After making the abovementioned changes to the O&M expenses of the Second Control Period submitted by AAI, it is observed that the 4-year CAGR from FY 2015-16 to FY 2019-20 has reduced from 11.26% to 9.31%. This is primarily on account of:

- Reduction in admin and general expenses - CHQ by Rs. 130.59 Cr.
- Considering O&M expenses (other than admin and general expenses – CHQ) of FY 2020-21 to be the same as O&M expenses of FY 2019-20