File: AERA/20010/MYTP/CIAL/CP-II/2016-17/Vol-IV

Consultation Paper No. 06 / 2017-18

सत्यमेव जयते

Airports Economic Regulatory Authority of India

In the matter of Determination of tariffs for Aeronautical Services in respect of Cochin International Airport, Cochin, for the Second Control Period (01.04.2016 to 31.03.2021)

New Delhi: 12th May, 2017

AERA Building

Administrative Complex

Safdarjung Airport

New Delhi – 110 003

Contents

1. Brief on Cochin International Airport Limited (CIAL) 5

1.1 Background 5
1.2 The Existing Airport 5
1.3 Construction of the New International Terminal 6
1.4 Ownership Structure 7
1.5 Management Structure 7
1.6 Subsidiaries 8
1.7 Cargo Operations 9

2. MYTP Submission by CIAL 11

2.1 Initial Submissions 11
2.2 Additional Submissions 12

3. Framework for Determination of Tariff for CIAL 13

3.1 Till to be adopted 13
3.2 Control Period 14
3.3 Consideration of Cargo Operations carried out by CIAL 14
3.4 Consideration of Cargo, Ground Handling, Fuel Farm services and rental revenues 15

4. Review of First Control Period 17

4.1 CIAL's submission for the First Control Period 17
4.2 Tariff determination for the First Control Period 17
4.3 Authority's analysis relating to truing up of First control period 18

5. Traffic Projections 21

5.1 CIAL’s submissions on Passenger Traffic and Authority’s analysis 21
5.2 CIAL’s submission on Air Traffic Movements (ATMs) and Authority’s analysis 22
5.3 CIAL’s submission on Cargo traffic and Authority’s analysis 24
6. Allocation of Assets between Aeronautical and Non-Aeronautical services 27
6.1 Allocation basis submitted by CIAL for Assets 27
6.2 Authority’s evaluation of Allocation basis submitted by CIAL for Assets 28
7. Regulatory Asset Base including Additional Capital Expenditure 31
7.1 CIAL's submissions on Opening Regulatory Asset Base and Capital Expenditure 31
7.2 Authority’s examination of Opening RAB and Capital expenditure 32
8. Depreciation 37
8.1 CIAL’s submissions on Depreciation 37
8.2 Authority’s examination of Depreciation 38
9. Regulatory Asset base 41
9.1 CIAL’s submission of Regulatory Asset Base for the second control period 41
9.2 Authority’s assessment of Regulatory Asset Base for the second control period 41
10. Operating Expenditure 43
10.1 CIAL’s submission on Allocation of expenditure between Aeronautical and Non-Aeronautical services and Authority’s analysis of the same 43
10.2 CIAL’s submission on Operating Expenditure estimates 46
10.3 Authority’s Examination of Operating Expenditure 53
11. Non Aeronautical Revenue (NAR) 57
11.1 CIAL’s submissions on Non-Aeronautical revenues 57
11.2 Authority’s Examination of Non-Aeronautical Revenues 63
12. Cost of Equity, Cost of Debt and Fair Rate of Return (FRoR) 69
12.1 CIAL’s submissions on Cost of Equity, Debt and FRoR 69

12.2 Authority’s examination of CIAL’s submissions on Cost of Equity, Debt and FRoR 72

13. Taxation matters 74

13.1 CIAL's Submission on Taxation 74

13.2 Authority’s Examination of Taxation 75

14. WPI Computations 78

14.1 CIALs submission on Wholesale Price Index 78

14.2 Authority’s examination of CIALs submission on WPI 78

15. Quality of Service 79

15.1 CIAL’s Quality of Service 79

16. Aggregate Revenue Requirement 80

16.1 CIAL’s submission on Aggregate Revenue Requirement (ARR) 80

16.2 Authority’s evaluation on Aggregate Revenue Requirement (ARR) 80

17. Summary of Proposals put forth for Stakeholder consultations 83

18. Stakeholder Consultation Timeline 87

19. List of Annexures 88

20. List of Tables 89

1. Brief on Cochin International Airport Limited (CIAL)

1.1 Background

1.1.1 CIAL was the first airport in India to be built under Public Private Partnership (PPP), with equity participation from the Airport users as well as the general public, Non Resident Indians (NRIs), Government of Kerala (GoK) and the airport service providers. The Cochin Airport, as it exists today, was an alternative to the then Civil Enclave in the Naval Airport at Cochin. According to CIAL, *"the involvement of airport users was a pioneering concept of this project, which was conceived even while a definite policy on private participation in airport infrastructure was not in place".*

1.1.2 Cochin International Airport Limited (CIAL) was incorporated on 30th March 1994 as a public limited company, with an Authorized Share Capital of Rs. 90 Crores. The construction work commenced in August 1994. The airport was inaugurated by the President of India on 25th May 1999. CIAL's operations started from June 1999 with Air India operating the first flight to the Gulf.

1.1.3 A significant part of air traffic is driven by strong state-domiciled Non-Resident Indian (NRI) community residing in the Middle East and attractiveness of the state as an international and domestic tourist destination.

1.2 The Existing Airport

1.2.1 The total project cost for the initial phase of airport was around Rs. 315 Crores financed through a paid up equity capital of Rs. 85 Crores and term loan of Rs. 218 Crores. The balance was tied up through interest free security deposits from various airport service providers.

1.2.2 There are two existing centrally air-conditioned terminals for domestic (9381 sq. m) and international operations (46359 sq. m). The integrated cargo complex at the airport is capable of handling perishable/non-perishable and dangerous cargo. CIAL commenced its 'Duty Free' operations in May 2002. Air India and Bird Worldwide Flight Services (BWFS) provide ground handling operations at the airport. Bharat Petroleum Corporation Limited operates the Hydrant Refueling System for the aircrafts.

1.2.3 The company, through its subsidiary company – CIAL Infrastructures Limited (CIL), commissioned Solar Power plants of 15.4 MWp capacity at Cochin International Airport, which enabled the Airport to become the first airport in the world to be fully powered by solar energy. The company has taken steps to augment the solar capacity at the Airport to 28.8 MWp during the financial year 2016-17, with an aggregate power potential of an average of 1,15,000 units a day (42 million units per annum).

1.2.4 Technical Highlights:

- 3400m long, 45m wide, Code E Runway with Boeing-747-400 as critical aircraft
- Full length parallel taxi track, Rapid Exit Taxiway and 3 normal taxi links
- 5 contact bays and 11 remote bays
- CAT – 1 Runway Lighting and ILS facility
- CIAL, has a cargo village comprising of 70,000 sq. ft. of International cargo, 40,000 sq. ft. domestic cargo with annual handling capacity of over 100,000 MTs
- 25000 MT storage area for perishables
- Fully equipped CAT -9 fire-fighting and rescue services
- MRO Facility with 2 conventional hangars

1.3 Construction of the New International Terminal

1.3.1 In order to cater to the projected traffic demand, CIAL undertook construction of New International Terminal from 2013-14 which has been inaugurated in March 2017. The new Terminal has a capacity to handle 4000 pax during peak hours and when fully operational, would have 112 check-in counters, 19 gates and 15 aerobridges.

1.3.2 The car park area adjoining the new International Terminal would be able to accommodate 1,500 cars at a time and will be equipped with access control systems and electric car battery charging facilities. The car parking area would be provided with a solar roof which will add 2.4 MW to the existing solar capacity of the airport.

1.3.3 The completion of the new four-lane railway over bridge which is under construction, adjacent to the existing over bridge would provide seamless four-lane connectivity from the national highway to the Airport.

1.3.4 After the commissioning of the new International Terminal, the existing International Terminal would be converted as the new Domestic Terminal, with a five-fold increase in area.

1.3.5 The capital outlay for the construction of the New International Terminal together with the Apron and Roads is Rs. 1121 Crores. This project was funded by internal accruals, proceeds from rights issue and debt finance.

1.4 Ownership Structure

1.4.1 Cochin International Airport is owned and managed by Cochin International Airport Limited (CIAL) which has an ownership structure involving equity contributions from Government of Kerala, financial institutions, and more than 16,000 individual investors who are mostly non-resident Keralites (NRKs).

1.4.2 The shareholding pattern of equity investors is shown in the table below as at 30th November 2015:

Table 1: Equity Share Holding Pattern

Equity Share	% Share
Government of Kerala	32.40%
Directors, their relatives and associates	31.70%
BPCL	3.40%
National Aviation Company Limited	3.30%
HUDCO	3.30%
State Bank of Travancore	3.30%
KSIDC, Plantation, KTDFC, KAMCO	1.70%
Federal Bank Limited	2.00%
Indian Overseas Bank	0.30%
Others	18.60%
Total	100.00%

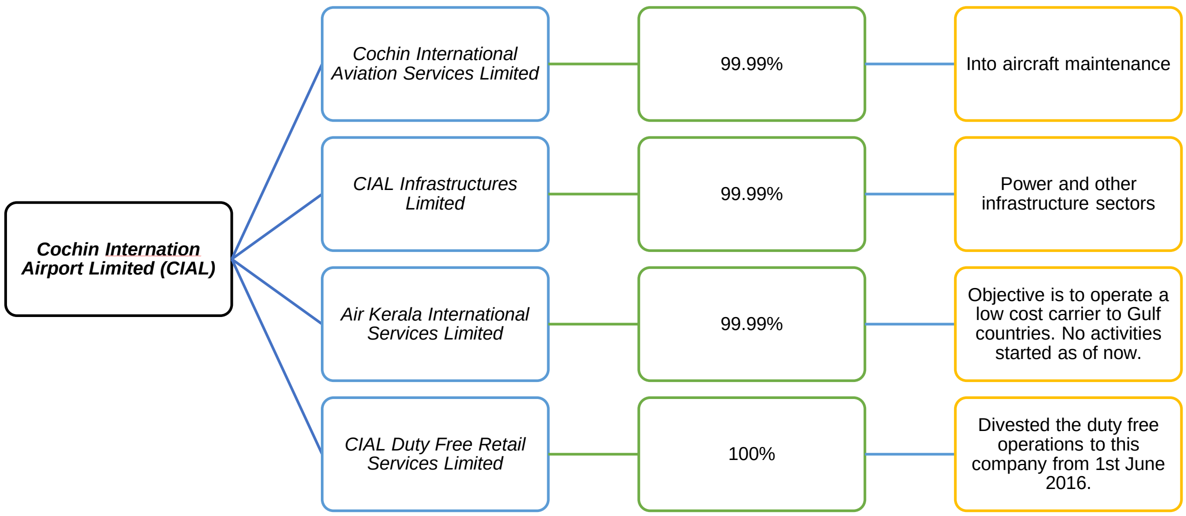
1.4.3 In June 2015, CIAL raised Rs. 382.60 Crores through a rights issue to existing equity shareholders. The object of this issue was to part finance the construction cost of the new International Terminal Building, other ongoing projects and also for the future expansion and diversification projects of CIAL.

1.4.4 CIAL had for the first time declared dividend to its shareholders in the fifth year of its operation (i.e. 2003-04). It has been regularly declaring dividend to its shareholders ever since.

1.5 Management Structure

1.5.1 The Chief Minister of Kerala is the Chairman of CIAL. As per clause 125 (1) of the Memorandum and Articles of Association of the company, so long as the Government of Kerala and/or its Public Sector Undertakings jointly or severally hold not less than 26% of the paid up equity capital of the company, the Government of Kerala shall have the right to appoint one among the Directors as Managing Director of the Company for such term, not exceeding five years at a time, and will also have the right to withdraw/cancel the appointment so made at their discretion.

1.6 Subsidiaries



Cochin International Aviation Services Limited

1.6.1 Cochin International Aviation Services Limited (CIASL) is a subsidiary of CIAL, which has been incorporated for aircraft Maintenance Repair and Overhaul (MRO) services and for Aviation Training. The organization has secured approvals from regulators like Director General of Civil Aviation (DGCA), European Aviation Safety Agency (EASA), General Civil Aviation Authority (GCAA - UAE), Civil Aviation Authority of Singapore (CAAS), Qatar Civil Aviation Authority (QCAA), Civil Aviation Authority of Srilanka and DGCA – Kuwait for line maintenance services.

1.6.2 For base maintenance, the Company has established two Narrow Body Hangars, with easy and direct access to the Airport Runway. CIASL is currently exploring proposals for technical partnership with reputed MRO service providers to commence the base maintenance services. CIASL is currently undertaking Line Maintenance Services for international carriers operating at Cochin International Airport.

Air Kerala International Services Limited

1.6.3 Air Kerala International Services Limited (AKISL) is a subsidiary of the Cochin International Airport Limited, and the primary objective of the Company was to establish a low cost airline based at Cochin International Airport, to benefit the huge population of non-resident Keralites in the Middle East.

1.6.4 CIAL submitted that the current policy restriction of Government of India, requiring Indian carriers to have a fleet of at least 20 aircraft and 5 years of operations in the domestic market had constrained AKISL from taking the initiative forward. In the National Civil Aviation Policy 2016, the Government has decided to ease the restrictions on the requirement that mandated airlines to have five years of domestic operations to be eligible to fly overseas and CIAL has stated that once new policy is approved, AKISL would be able to take the initiative forward.

CIAL Infrastructures Limited

1.6.5 CIAL Infrastructures Limited (CIL) was incorporated in the year 2012 to broaden the horizons of CIAL to exploit the opportunities in the power and other infrastructure sectors. CIL has commissioned 15.4 MWp solar power plant at the Airport premises, which enabled the company to become the world's first fully solar powered Airport.

1.6.6 The plant now generates adequate power to meet the energy requirements of CIAL. As the requirement of power at the Airport will increase substantially with the commissioning of the new International Terminal Building, CIL has taken steps to augment the solar capacity by installing additional 13.4 MWp solar plants within the airport premises. With the commissioning of these additional projects, the total solar capacity will increase to 28.8 MWp, and will enable CIAL to continue its status as a fully solar powered airport, even after the commencement of full-fledged operations of the new international terminal.

1.6.7 The Government of Kerala has allotted 8 Small Hydro Electric Power (SHEP) Projects aggregating to 49.8 MW to CIL on BOOT basis under IPP category, which are in various stages of progress.

CIAL Duty free and Retail Services Limited

1.6.8 CIAL Duty free and Retail Services Limited (CDRSL) is a newly incorporated wholly owned public limited subsidiary company of CIAL. The Company was incorporated on the 1st day of March 2016. The Company commenced its commercial business activities with effect from 1st June 2016.

1.7 Cargo Operations

1.7.1 CIAL, in addition to being the Airport operator at Cochin International Airport also manages and operates the Cargo facility at Cochin International Airport.

1.7.2 The Air Cargo Centre at Cochin International Airport was commissioned on 1st December 2000. The facility has more than 100,000 sq. ft. of office and warehouse area space dedicated for the cargo operations.

1.7.3 Key Features as per CIAL are as follows:

- The total area earmarked for the Cargo village is 50 acres.
- Separate areas are dedicated for the storage and handling of Domestic (in bound, out bound including courier) and international Cargo including the Transshipment cargo
- The entire International air cargo centre is designated as a Customs Bonded area.

2. MYTP Submission by CIAL

2.1 Initial Submissions

2.1.1 The Airports Economic Regulatory Authority of India (Authority) was established under "The Airports Economic Regulatory Authority of India Act, 2008" (the "AERA Act") to perform the functions in respect of major airports, inter alia:

- to determine the tariff for the aeronautical services;
- to determine the amount of the development fees in respect of major airports;
- to determine the amount of the passengers service fee levied under rule 88 of the Aircraft Rules, 1937 made under the Aircraft Act, 1934; and
- 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 authorized by it in this behalf.

2.1.2 As per Section 2 (a) of the AERA Act, any service provided, inter alia:

- for the landing, housing or parking of an aircraft or any other ground facility offered in connection with aircraft operations at an airport;
- for ground safety services at an airport;
- for ground handling services relating to aircraft, passengers and cargo at an airport;
- for the cargo facility at an airport; and
- for supplying fuel to the aircraft at an airport,

are aeronautical services and the tariff for such aeronautical services at a major airport is to be determined by this Authority in terms of Section 13(1)(a) of the Act.

2.1.3 In the discharge of its functions of determination of tariff for aeronautical services, and to call for such information as may be necessary to determine tariff under the AERA Act, and to ensure transparency, the Authority had issued an Order No.13/2010-11 dated 12th Jan 2011 ("Airport Order") finalizing the Regulatory Philosophy and approach for economic regulation of Airport Operators. The Authority thereafter issued Order No.14/2010-11 dated 28th Feb 2011 providing the Authority's responses to the comments of stakeholders received in response to CP 3/2009-10. These Orders were issued by the Authority after stakeholder consultation based on responses received on the White Paper on "Regulatory Objectives and Philosophy in Economic Regulation of Airports and Air Navigation Services" (White Paper) on 22nd Dec 2009 and Consultation Paper No. 03/2009-10 issued on 26th Feb 2010. The Airports Economic Regulatory Authority of India (Terms and Conditions for determination of tariffs for Airport Operators) Guidelines, 2011 (the "Airport Guidelines") was also issued by the Authority under Section 15 of the AERA Act directing all Airport Operators to act in accordance with the Guidelines.

2.1.4 The Authority also issued the Regulatory Philosophy and approach for Economic Regulation of the Aeronautical Services of Cargo facility, Ground Handling and Supply of fuel to an aircraft ("CGF") vide Order No. 12/2010-11 (the "CGF Order") and issued Direction No. 04/2010-11 dated 10th Jan 2011 (the "CGF Guidelines") detailing the terms and conditions for determination of tariffs in respect of Service Providers (including Independent Service Providers ("ISPs")) for the CGF services.

2.1.5 As per proviso to clause 3.1 of the Airport Guidelines, the Airport Operator(s) are required to submit to the Authority for its consideration, a Multi-Year Tariff Proposal (MYTP) for the respective control periods within the due date as specified by the Authority.

2.1.6 Further, the Authority has issued Order No. 14 dated 12th January 2017 in relation to aligning certain aspects of AERA's Regulatory Approach with provisions of National Civil Aviation Policy approved by Government of India.

2.1.7 CIAL has, as part of the MYTP submissions for the second control period, submitted the proposal and details and documents in November 2015 and had also submitted the MYTP forms online in AERA's portal.

2.2 Additional Submissions

2.2.1 Further to the review of submissions made by CIAL, details and clarifications were sought for by AERA which have been submitted by CIAL on various dates viz. 8th August 2016, 23rd November 2016, 17th January 2017, 24th January 2017, 10th February 2017, 27th February 2017, 15th March 2017 and 25th March 2017. **(Refer Annexure 1)**

2.2.2 CIAL has also, as part of the updated submissions, updated the Business model for actual financial results of March 2016 and submitted the same to AERA. AERA has, for the purpose of evaluation of the various building blocks, used the said Business model submitted by CIAL.

3. Framework for Determination of Tariff for CIAL

3.1 Till to be adopted

3.1.1 The methodology adopted by the Authority to determine Aggregate Revenue Requirement ("ARR") is based on AERA Act, 2008 and the Airport Guidelines issued by AERA.

3.1.2 The methodology also takes into account the recent amendments to the Guidelines regarding the Hybrid-Till mechanism, wherein, only 30% of the Non-Aeronautical revenue is to be used for cross-subsidizing the aeronautical charges as against the earlier practice of taking the entire Non-Aeronautical revenues for cross-subsidizing the aeronautical charges (Single Till).

3.1.3 The ARR under hybrid till for the Control Period (ARR) shall be expressed as under:

$$\text{ARR} = \sum_{t=1}^{5}(ARR_t) \text{ and}$$
$$\mathrm{ARR_t} = (\mathrm{FRoR \ x \ RAB_t}) + \mathrm{D_t} + \mathrm{O_t} + \mathrm{T_t} - (\boldsymbol{x}\% * \mathrm{NARt})$$

- Where t is the Tariff Year in the Control Period
- Where ARR_t is the Aggregate Revenue Requirement for year t
- Where FRoR is the Fair Rate of Return for the control period
- Where RAB_t is the Regulatory Asset Base pertaining to Aero activities for the year t
- Where D_t is the Depreciation corresponding to the RAB for the year t
- Where O_t is the Operation and Maintenance Expenditure for the year t, which include all expenditures incurred by the Airport Operator(s) pertaining to Aero activities
- Where T_t is the Taxation cost for the year t, relating to the Aero activities
- Where NAR_t is the revenue from Non Aeronautical Services.

3.1.4 Accordingly, different elements of Aeronautical Tariff is projected for the 5 years in the control period in such a way that the present value of the Aeronautical Revenues over the 5 year period equals the present value of the ARR computed.

3.1.5 The present value of total aeronautical revenue that is estimated to be realized each year during the control period at proposed tariff levels is compared with the present value of the ARR during the control period. In case the present value of estimated aeronautical revenue during the control period is lower than the present value of ARR during the control period, the airport operator may opt to increase the proposed tariff. In case the present value of estimated aeronautical revenue is higher than the present value of the ARR then the airport operator will have to reduce its proposed tariff.

3.1.6 The Authority's examination of each of the building block in respect of Cochin International Airport, Cochin is presented in the subsequent sections.

3.2 Control Period

3.2.1 In terms of Direction No.5 issued on 28th Feb 2011, Control Period means a period of five Tariff Years, during which the Multi Year Tariff Order and Tariff(s) as determined by the Authority pursuant to such Order shall subsist and the First control period commences from 1st April 2011. Accordingly, the Second Control Period shall commence from 1st April 2016.

3.2.2 As per the guidelines, CIAL has furnished details information and particulars relevant for the MYTP for the Second Control Period.

3.2.3 The Authority's analysis of First Control Period is given in Para 4 below.

3.3 Consideration of Cargo Operations carried out by CIAL

3.3.1 The Authority notes that Cargo Operations in Cochin Airport have been carried out by CIAL only.

3.3.2 The CGF guidelines lays down the manner of determination of Tariff for Cargo activities based on the principles of Materiality, Competition and reasonableness of User agreements.

3.3.3 The Authority shall determine the materiality index with respect to services provided for cargo facility at a major airport based on information to be obtained from the AAI or any other source it may deem fit. The materiality index for service provided for cargo facility at major airport A shall be defined as:

$$\text{Materiality index for service provided for cargo facility at Major Airport A} = (\text{Cargo Volume at major Airport A} \div \text{Total Cargo Volume at Major Airports}) \times 100\%$$

3.3.4 Where the Materiality Index, as calculated above is 2.5% or more at a major airport, the service provided for cargo facility at major airport shall be deemed "material". If Materiality Index is below 2.5%, then service provided for cargo facility at major airport A shall be deemed "not material".

3.3.5 The Authority has evaluated the level of cargo handled by CIAL and compared the same with the other airports in India for the period April 2016 to October 2016 based on AAI data and concluded that the % of cargo handled by CIAL as a percentage of major airports is above 2.5%. Hence, the Authority notes that the Cargo services provided at CIAL are **material**. The Authority notes that the Cargo Operations at Cochin Airport are only carried out by CIAL and hence the Authority determines the same to be **non-competitive**.

3.3.6 The Authority notes that rates for Cargo charged by CIAL are carried over from 2001 and there are no specific user agreements for the same. The Authority notes that CIAL has proposed for certain changes to the Cargo rates as part of its ATP submissions.

3.3.7 Accordingly the Authority decides to carry out assessment of cargo services provided by CIAL under "Price Cap" method, together with the determination of tariff for Airport activities.

3.3.8 Determination of ARR for Airport Operations together with the ARR for Cargo Operations has been made in order to provide flexibility to the Airport Operator to determine individual charges within the overall ARR. This is because the Cargo Operator is the same legal entity that operates the Airport. In future, if a different legal entity operates the Cargo services, determination of ARR would, accordingly be done individually.

3.4 Consideration of Cargo, Ground Handling, Fuel Farm services and rental revenues

3.4.1 The Authority notes that Cargo Activities are carried out by CIAL and Ground Handling and Fuel Farm activities are concessioned to different service providers.

3.4.2 The Authority considers the services provided towards Cargo, Ground Handling and Fuel Farm as Aeronautical activities and accordingly consider the charges as Aeronautical services.

3.4.3 The Authority notes that CIAL does not collect any rent from other Government agencies such as CISF, Customs etc. and only collects rentals from AAI and Income Tax department. The Authority proposes to consider activities such as giving space for fuel farm on rent, giving space to airlines and other government agencies on rent as Aeronautical revenues.

3.4.4 Accordingly, the Authority proposes to determine tariff for CIAL considering these services as Aeronautical services.

Proposal No 1. Regarding Regulatory Till and principles of determination of Tariff

1.a. Based on the material before it and its analysis, the Authority proposes:

- **i. To compute Aggregate Revenue Requirement under 30% Hybrid Till for the second control period.**
- **ii. To consider Cargo services provided by CIAL as material and non-competitive and determine tariff under "price cap" regulation together with determination of tariff for Airport Operations.**

iii. **To consider revenues from Cargo, Ground Handling and Fuel Farm services and Rentals from leasing of space to agencies providing Aeronautical services as Aeronautical revenues.**

4. Review of First Control Period

4.1 CIAL's submission for the First Control Period

4.1.1 CIAL submitted Multi Year Tariff Proposal (MYTP) for the first control period from FY 2011 to FY 2016. The first control period's MYTP submission was made in two parts. The initial MYTP submission was made in 2011. With elapse of time, AERA requested CIAL to update the MYTP submission made in 2011. CIAL submitted the updated MYTP and ATP in 2014, pursuant to carrying out consultations with airport users in February 2013, on the proposed new terminal development project.

4.2 Tariff determination for the First Control Period

4.2.1 CIAL had submitted that they did not intend to increase its aeronautical tariffs namely Landing & Parking charges and Cargo Charges in the first control period (FY12-FY16).

4.2.2 C1AL had also submitted that these charges were based on the tariffs of Airports Authority of India (AAI) prevailing in 2001. Further, CIAL had also stated that the existing tariffs, that were last revised in 2001, will continue till the end of this control period except for services such as ground handling, fuel supply and CUTE charges, where fees are collected based on separate user agreements.

4.2.3 CIAL had submitted the prevailing item wise tariffs of Landing, Parking and Cargo charges. CIAL also furnished the agreements pertaining to ground handling, fuel supply and CUTE charges along with the tariffs for these services.

4.2.4 In consideration of all the above factors, CIAL had requested this Authority to consider a light touch approach for determining the aeronautical tariffs for Cochin International Airport in the first Control Period.

4.2.5 The Authority had issued the Consultation Paper No. 03/2014-15 with the tentative decisions as below

"…Proposal No. 1. Regarding tariff determination

1.a. The Authority proposes to further continue with the existing aeronautical tariffs i.e., Landing, Parking, Housing, Aerobridge charges, Facilitation Component of Passenger Service Fee, X Ray Baggage Screening and Cargo charges at Cochin International Airport, Cochin as were already continued by the Authority's earlier Order No. 15/2010-11 dated 24.03.2011 till the end of the control period, i.e. upto 31.03.2016 (As per Tariff Card – Annex-II).

1.b. The Authority also notes that CIAL has entered into agreements with the service providers of Ground Handling as well as Supply of fuel to Aircraft. The Authority proposes to allow CIAL *to revise the tariffs for Ground Handling, Supply of Fuel to Aircraft, CUTE charges as per the relevant agreements entered into with the service providers as well as recipients of the aeronautical services.*

1.c. CIAL shall approach the Authority in due course and at an appropriate time for tariff determination for the next control period, namely, 2016-2021.

1.d. As the Authority has proposed to continue the existing charges for 2014-15 as well as 2015-16, the question of "truing up" of any element related to regulatory building blocks does not arise at the time of tariff determination for the next control period starting w.e.f. 01.04.2016…"

4.2.6 Stakeholders' comments on the Authority's proposals given in the Consultation Paper, include comments from IATA etc. as follows:

"…As long as CIAL maintain this philosophy and airport charges are not increased or are brought down overtime, the need for strong-handed regulation would be less compelling. However, the Authority should be in a position to introduce strong-handed price-cap regulation in future control periods should there be an adverse shift in the philosophy of CIAL or if there were to be a significant incurrence of capital expenditure, bath resulting in higher airport charges.

…

IATA supports AERA's tentative decision outlined in the proposal No.1 of the Consultation Paper No. 03/2014-15 dated 05.06.2014 of Cochin International Airport…"

4.2.7 The Authority had in its Order 15/ 2015-16 dated 17th April 2015 stated as follows:

"(i) CIAL which is pending determination for the first control period, would continue at the existing levels on an adhoc basis

(ii) …………..

(iii) CIAL is advised to submit the MYTP for the Second Control Period well in time as per Guidelines by incorporating the actual financials of 2014-15 which would be examined by Authority along with the Aggregate Revenue Requirement for the first control period…"

4.3 Authority's analysis relating to truing up of First control period

4.3.1 CIAL, in its submissions of MYTP for the second control period has requested the Authority to treat the Order dated 17th April 2015 issued by the Authority for the first control period as final and to review only submissions made for the second control period.

4.3.2 CIAL has also submitted a letter to the Authority giving reasons and justification for not truing up/ determining the tariff for the first control period, on 14th February 2017**.**

4.3.3 Key reasons provided by CIAL in its submission include:

4.3.3.1 *Low Cost functionally efficient Airport with emphasis on affordability.*

4.3.3.2 *Continued focus on low cost development.*

4.3.3.3 *Lower historical tariffs – Tariff fixed in 2001 and the 10% interim hike given to all Airports not given to CIAL. Government of Kerala had instructed to withdraw the UDF then prevailing at the Airport.*

4.3.3.4 *Unique business model of Duty free operations and cost effective airport execution supporting lowest tariffs.*

4.3.4 CIAL has also, in its aforementioned letter stated that "*had the Authority determined tariffs in the first control period itself, the business model and the strategic decisions taken by CIAL Management would have been much different and it had a consequential impact on the performance and financials of the company, which cannot be compensated by any dynamics of Regulators determining process*".

4.3.5 The Authority notes that there is a shift between the proposal in the Consultation Paper and the final Order of the Authority. The rationale behind this shift has not been elaborated in the Authority's final order.

4.3.6 Aeronautical tariffs at Cochin Airport are among the lowest in India and were determined on par with AAI rates in 2001, and have remained unchanged since then. The Authority notes that the increase of 10% of landing, parking and housing charges that were approved for AAI airports as well as airports of Delhi, Mumbai, Bangalore and Hyderabad in 2009 was also not approved for CIAL.

4.3.7 The Authority notes that CIAL has effectively used the Non-Aeronautical Revenues to cross subsidize the Aeronautical charges and kept them constant for a long period of time. The Authority also notes that the tariff determination or fixation process for CIAL was not in tandem with the Airport's Operational cycle which commenced from 1999 onwards.

4.3.8 Determination of ARR for the first control period now would mean re-determination and changing of tariffs which were prevalent since 2001 and which were collected, without any increase in the previous control period.

4.3.9 The Authority notes that the stakeholders had also supported Authority's views on the Proposals mentioned in the Consultation Paper for the first control period.

4.3.10 Having regard to the aforementioned factors, the Authority proposes to not revisit and recompute the Aggregate Revenue Requirement for the First control period.

Proposal No 2. Regarding truing up of First control period Aggregate Revenue Requirement (ARR)

2.a. Based on the material before it and its analysis, the Authority proposes

i. To not recalculate the Aggregate Revenue Requirement (ARR) for the first control period.

5. Traffic Projections

5.1 CIAL's submissions on Passenger Traffic and Authority's analysis

5.1.1 Passenger traffic at CIAL grew at a CAGR of 10.2% for FY 2010 - FY 2015. According to the submissions made by CIAL, *"Historical growth in domestic traffic has been driven by a period of sustained increase in per capita incomes, low air fares, active promotion of Kerala's tourism industry and increasing business travel given Kochi's importance as a business center in Kerala. Growth in international traffic at Kerala has been primarily driven by Non Resident Keralites (NRKs) and tourists."*

5.1.2 Trend of passenger traffic for the period till March 2016 is as below:

Table 2: Historical Trend in Passenger Traffic (Pax in Mn)

Past Traffic	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
Domestic PAX	1.99	2.14	1.97	2.11	2.66	3.13	9.53%
International PAX	2.36	2.59	2.93	3.27	3.74	4.64	* 11.74%
Total PAX	4.35	4.72	4.90	5.39	6.41	7.77	
***** International PAX for 2015-16 reduced by 0.53 Mn (Kozhikode traffic diversion) to compute CAGR							

5.1.3 Based on the above trend, the projections submitted by CIAL for passenger traffic in the second control period is as follows:

Table 3: Projections of Passenger Traffic based on Revised CAGR (Pax in Mn)

Projected Traffic	2016-17	2017-18	2018-19	2019-20	2020-21
Domestic PAX	3.43	3.75	4.11	4.50	4.93
International PAX	*4.86	5.14	5.75	6.42	7.18
Total PAX	8.29	8.90	9.86	10.93	12.11
* International PAX for 2016-17 increased by 0.27 Mn (Kozhikode traffic diversion) for half year in addition to the growth projected as per CAGR					

5.1.4 CIAL stated in its submissions that the sudden increase in traffic between FY 2016 and FY 2015 (by about 13%) was due to the diversion of traffic from Kozhikode Airport which was partially closed for renovation. This increase, being temporary in nature was not included for the purpose of calculation of CAGR and consequently for the traffic projections for the Second Control Period. As per CIAL, *"Passenger traffic for FY 2016 is forecasted based on extrapolation of the half year traffic numbers after accounting for traffic diversion from Kozhikode. Traffic projections for FY 2017* *onwards is based on historical Compounded Annual Growth Rate (CAGR) for domestic and international traffic. The international traffic during first half of FY 2017 has been adjusted to account for diversion from Kozhikode as it is expected that the phenomena will continue during the first half of FY 2017 as well."*

5.1.5 The Authority had sought for clarification from CIAL on the basis of calculation of the Kozhikode traffic adjustment for FY 2016 and FY 2017 for passengers. In response to this query, CIAL stated that the traffic diversion from Kozhikode for 2015-16 was estimated at 0.27 Million for the first half of 2015-16, based on flight information for the period and the assumption is that the trend will continue during the first half of 2016 – 17.

5.1.6 The Authority studied the trend of 10 year CAGR which was as follows:

Table 4: 10 year CAGR of Passengers (Pax in Mn.)

Past Traffic	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	CAGR
Domestic	0.73	1.13	1.57	1.35	1.71	1.99	2.14	1.97	2.11	2.66	3.13	15.64%
International	1.15	1.43	1.77	2.01	2.23	2.36	2.59	2.93	3.27	3.74	4.64	* 13.54%
Total PAX	1.89	2.56	3.34	3.36	3.95	4.35	4.72	4.90	5.39	6.41	7.77	
* International PAX for 2015-16 reduced by 0.53 Mn (Kozhikode traffic diversion) to compute CAGR												

5.1.7 The Authority noted that the 10 year CAGR for CIAL shows a higher trend of growth beyond 13% in International traffic and over 15% in domestic traffic. This is partly due to the lower base of passengers at the beginning in 2005-06. Further, the Authority notes that traffic may get realigned between Kannur – the new airport coming up, Kozhikode and Cochin airports, when all three airports operate to their full capacity. Hence, the Authority proposes to consider the 5 year CAGR as worked out in Table 2 as the base for projecting the revenues and ARR for CIAL.

5.2 CIAL's submission on Air Traffic Movements (ATMs) and Authority's analysis

5.2.1 Domestic ATMs at Cochin International Airport increased from 23,476 in 2010 to 26,823 in 2015 while international ATMs at the airport increased from 18,068 movements in 2010 to 25,970 movements in 2015.

5.2.2 The ATM traffic during the first control period is as shown below:

Table 5: Actual ATMs during the past years (Nos.)

Past ATM Traffic	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
Domestic ATM	22600	22817	21252	24082	26823	27907	4.31%

Past ATM Traffic	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
International ATM	18481	18324	20286	23134	25970	29861	10.07%
Total ATM	41081	41141	41538	47216	52793	57768	
Domestic - PAX/ATM	88	94	93	88	99	112	
International - PAX/ATM	128	141	145	141	144	155	

5.2.3 CIAL submitted that the ATMs at Cochin International Airport for the second control period were forecasted using the forecasts for passenger traffic and forecast of Pax per ATM for domestic and international sectors. CIAL submitted that it expected that the Pax per ATM at Cochin International Airport would increase to 120.32 for domestic operations and to 163.06 for international operations by FY 2021, based on benchmarking of the Pax per ATM at comparable airports of Bengaluru and Hyderabad, whose current traffic trends are in line with the expected traffic of CIAL in 2021. Accordingly the projected Pax per ATM and consequently the projected ATM traffic is as given below:

Table 6: Projected Pax per ATM and ATM traffic (Nos.)

Projected ATM Traffic	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Domestic - PAX/ATM	112	114	115	117	119	120
International - PAX/ATM	155	157	158	160	162	163
Domestic ATM	27,907	30,127	32,531	35,134	37,952	41,005
International ATM	29,861	30,985	32,448	35,920	39,768	44,031
Total ATM	**57,768**	**61,113**	**64,979**	**71,054**	**77,720**	**85,036**

5.2.4 CIAL also submitted that the growth in air-traffic and ATMs would require the Airport to invest in a secondary runway in the medium to long term and that the Airport would also require sufficient funds to finance the acquisition of land and development of the secondary-runway.

5.2.5 The Authority noted that CIAL had estimated that the Pax per ATM of Cochin International Airport in the year 2021 would be in line with the Pax per ATM trends at BIAL and HIAL's airports.

5.2.6 The Authority also noted that CIAL had submitted that the sharp increase in the ATMs in FY 2016 and FY 2017 was partially due to diversion of traffic from Kozhikode Airport which was partially closed for renovation. CIAL expected this increase in traffic, due to diversion from Kozhikode Airport, to be a short-term phenomenon, and have thus excluded this increase in the traffic projections.

5.3 CIAL's submission on Cargo traffic and Authority's analysis

5.3.1 Cochin International Airport handles international and domestic cargo including perishables, valuables and general cargo. Air cargo traffic increased from 5,951 Metric Tons (MT) in FY 2002 to 64,940 MT in FY 2015. Cargo traffic is dominated by exports to Middle East and Europe. Out of the 64,940 MT of cargo handled in FY 2015, approximately 54,633 MT was Export-Import (EXIM) cargo.

5.3.2 Air cargo handled at Cochin airport has grown from 41,092 MT to 64,940 MT during FY 2011 to FY 2015. Details of actual cargo handled are as given below:

Table 7: Past Cargo Traffic (MT)

Past Cargo Traffic	09-10	10-11	11-12	12-13	13-14	14-15	15-16	CAGR 11-16	CAGR 10-15
Domestic Outbound cargo	1,611	1,921	2,205	2,162	2,150	2,630	2,815	7.94%	10.31%
Domestic Inbound cargo	4,284	5,018	5,099	5,196	5,825	7,677	8,543	11.23%	12.38%
Total Domestic cargo	**5,894**	**6,939**	**7,303**	**7,358**	**7,975**	**10,307**	**11,359**		
Export cargo	25,628	24,867	26,183	28,818	33,277	42,394	63,095	20.47%	10.59%
Import cargo	9,872	9,286	9,358	10,355	13,189	12,239	4,634	-12.98%	4.39%
Total International cargo	**35,500**	**34,154**	**35,541**	**39,172**	**46,465**	**54,633**	**67,729**		
Total cargo	**41,394**	**41,092**	**42,844**	**46,530**	**54,440**	**64,940**	**79,088**		

5.3.3 Cargo projections for the second control period have been made considering 5 year CAGR from 2011-16 for Domestic Cargo and 5 year CAGR from 2010-15 for International Cargo. For international cargo, the 5 year period considered for calculation of CAGR is taken as 2010 to 2015 because export cargo in FY 2016 had increased due to diversions from Kozhikode, which is not expected to be recurring and the Import cargo reduction in 2016 has impacted the CAGR computed for 2011-16.

5.3.4 Accordingly, the projections for second control period are as given below:

Table 8: Projected Cargo Traffic (MT)

Projected Cargo Traffic	2016-17	2017-18	2018-19	2019-20	2020-21
Domestic Outbound cargo	3039	3280	3541	3822	4126
Domestic Inbound cargo	9503	10570	11757	13078	14547
Total Domestic cargo	**12542**	**13851**	**15298**	**16900**	**18673**
Export cargo	51849	57341	63414	70129	77557
Import cargo	4837	5050	5272	5503	5745
Total International cargo	**56687**	**62391**	**68685**	**75633**	**83302**

5.3.5 The Authority also observed that the import cargo had reduced from 12,239 MT in 2015 to 4,634 MT in 2016 and this was queried to CIAL. CIAL, in their response, stated that this was due to restrictions placed on import of certain items of cargo.

5.3.6 The Authority also noted that the international cargo had decreased from 63,095 MT in FY 2016 to 51,849 MT in FY 2017. CIAL had stated that FY 2016 data was inclusive of divergent international export traffic from Kozhikode which was not expected to continue in FY 2017 and hence, considered as an exceptional data point.

5.3.7 The Authority had analysed the 10 year CAGR for Cargo and noted that the cargo growth rate has been volatile. Hence the Authority proposed to consider the 5 year CAGR and projections as detailed in Para 5.3.4 above.

Table 9: 10 year CAGR for Cargo (MT)

Past Traffic	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	CAGR
Domestic Outbound	1554	2240	2452	2393	1611	1921	2205	2162	2150	2630	2815	6%
Domestic Inbound	2406	2682	3766	4222	4284	5018	5099	5196	5,825	7677	8543	14%
Total Domestic	3960	4922	6218	6615	5894	6939	7303	7358	7975	10307	11359	
Export	12058	12647	15024	20645	25628	24867	26183	28818	33277	42394	63095	18%
Import	5629	4364	5828	6898	9872	9286	9358	10355	13189	12239	4634	-2%
Total International	17687	17011	20852	27544	35500	34154	35541	39172	46465	54633	67729	

5.3.8 After analysis the Authority proposes to consider the traffic estimates provided by CIAL as above. Accordingly, summary of the traffic projections of passengers, ATM and Cargo is as given below:

Table 10: Total Traffic Projection for Second Control Period

Traffic Projections	**UOM**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Domestic PAX	Mn	3.43	3.75	4.11	4.50	4.93
International PAX	Mn	4.86	5.14	5.75	6.42	7.18
Total PAX	Mn	8.29	8.90	9.86	10.93	12.11
Domestic ATM	Nos	30,127	32,531	35,134	37,952	41,005
International ATM	Nos	30,985	32,448	35,920	39,768	44,031
Total ATM	Nos	61,113	64,979	71,054	77,720	85,036
Domestic Outbound cargo	MT	3039	3280	3541	3822	4126
Domestic Inbound cargo	MT	9503	10570	11757	13078	14547
Total Domestic cargo	MT	12542	13851	15298	16900	18673

Traffic Projections	UOM	2016-17	2017-18	2018-19	2019-20	2020-21
Export cargo	MT	51849	57341	63414	70129	77557
Import cargo	MT	4837	5050	5272	5503	5745
Total International cargo	MT	56687	62391	68685	75633	83302

5.3.9 The Authority also notes that the actual traffic at CIAL may depend on the operations of Kozhikode Airport and the traffic that may get redistributed to other new airports (Kannur etc.) in Kerala. In view of this, the Authority proposes to true up the traffic projections for the current control period based on actuals at the time of tariff determination for the next control period.

Proposal No 3. Regarding Traffic projections

3.a. Based on the material before it and its analysis, the Authority proposes

i. To consider traffic projections as per 5 years' CAGR as detailed in Para 5.3.8 above for determination of tariff for the second control period.

ii. To true up the traffic of the second control period based on actuals, at the time of determination of tariff for the next control period.

6. Allocation of Assets between Aeronautical and Non-Aeronautical services

6.1 Allocation basis submitted by CIAL for Assets

6.1.1 CIAL has submitted basis of allocation of Assets – for existing assets and new assets as follows:

Table 11: Basis of Allocation of Existing assets, as per CIAL

<table>
<tr><th>Existing Assets</th><th>Basis for Segregation</th></tr>
<tr><td>Land</td><td>Existing land as on FY 2015 has been segregated based on the land usage by aeronautical and non-aeronautical activities. The land utilization details have been mentioned in Annexure along with land usage for non-aeronautical assets.</td></tr>
<tr><td>Buildings and civil works</td><td>Existing buildings & civil works assets as on FY 2015 have been firstly divided into terminal (passenger terminal) buildings and non-terminal buildings. Terminal building assets have been apportioned based on aeronautical and non-aeronautical area in the existing terminals. Total aeronautical area in the existing terminals is 51,518 sqm and total non-aeronautical area in the terminals is 4,222 sqm. For non-terminal buildings, classification of aeronautical & non-aeronautical assets has been done based on usage of each assets as indicated in Annexure.</td></tr>
<tr><td>Golf Course Development</td><td>Golf course development assets as on FY 2015 have been considered as 100% non-aeronautical assets. The Gross block value for Golf course development for FY 2014-15 is Rs.26.6 Crores (Refer Asset Allocation sheet in the MYTP Model)</td></tr>
<tr><td>Runway, roads and culverts</td><td>Existing runway, roads and culverts as on FY 2015 have been considered as aeronautical assets. The Gross block value for Runway, roads and culverts for FY 2014-15 is Rs.213.9 Crores (Refer Asset Allocation sheet in the MYTP Model)</td></tr>
<tr><td>Plant and Equipment</td><td rowspan="6">All these Assets as on FY 2015 have been segregated based on segregation of aeronautical assets and non-aeronautical assets in existing terminals. Total aeronautical area in the existing terminals is 51,518 sqm and total non-aeronautical area in the terminals is 4,222 sqm, i.e. 7.6% Non-Aero Area and 92.4% Aero Area in the terminal. These costs have been apportioned at this ratio. (Refer Asset Allocation sheet in the MYTP Model).</td></tr>
<tr><td>Office Equipment</td></tr>
<tr><td>Computer and accessories</td></tr>
<tr><td>Furniture and Fixtures</td></tr>
<tr><td>Vehicles</td></tr>
<tr><td>Intangible Assets</td></tr>
</table>

Table 12: Basis of allocation of new assets as per CIAL

New Assets	Basis for Segregation
New International Terminal	New international terminal assets have been apportioned based on aeronautical and non-aeronautical area earmarked for the relevant purposes in the new

New Assets	Basis for Segregation
	international terminal. Total aeronautical area in the new terminal is 132,236 Sq.m and total non-aeronautical area in the new terminal is 7,118 Sq.m.
Other than new international terminal assets	Classification of aeronautical and non-aeronautical assets has been carried out based on the usage of such assets.

6.2 Authority's evaluation of Allocation basis submitted by CIAL for Assets

6.2.1 The Authority has carefully reviewed the submission and allocation made by CIAL between Aeronautical and Non-Aeronautical assets and Operating Expenditure.

6.2.2 Authority's analysis on **Existing Assets** (other than land) is detailed below.

6.2.3 **Building**: The Authority had reviewed in detail, the workings relating to computation of Building area considered as Aeronautical resulting in 76% of the Building costs being considered as Aeronautical and 24% as Non-Aeronautical. The Authority noted certain calculation errors, which has been corrected. Consequently, the Authority proposes to consider the Building allocation ratio to be 71% and 29% between Aeronautical Assets and Non Aeronautical Assets.

6.2.4 **Other Assets**: The Authority noted that as per CIAL, (other than Golf course considered as Non-Aero and Road, Runways and Culverts considered as Aero), other assets have been segregated in the ratio of area of Aeronautical and Non-Aeronautical space in the Terminal Building. The Authority noted that in computing the Terminal Area relating to Non-Aeronautical assets, CIAL has considered only the specific area used for Non-Aeronautical activities as Non-Aeronautical Area and the common area has not been allocated to Aeronautical and Non-Aeronautical Activities. Hence, instead of the allocation of 7.57% of Terminal as towards Non-Aeronautical services, the Authority proposes to consider 10% of existing Terminal area as towards Non-Aeronautical services. The Authority notes that CIAL is in the process of converting the current integrated terminal to a domestic terminal and hence, the usage pattern of the terminal area is bound to undergo a change, which the Authority proposes to consider and true up at the end of the control period.

6.2.5 Authority's Analysis on allocation of **assets to be commissioned** is as follows:

6.2.6 Authority noted that assets relating to Terminal Building have been identified and split between Aeronautical and Non-Aeronautical assets based on the area usage and accordingly, based on the proposed usage, 5.1% of the area is allocated towards Non-Aeronautical use. The Authority notes that CIAL has done a segregation of assets in its existing terminal approximately in the ratio of 92.5%

to 7.5% which the Authority proposes to adopt, for the new terminal. The Authority accordingly, proposes to consider the allocation provided by CIAL for existing terminal viz – 7.5% as towards Non-Aeronautical, subject to it being trued up based on actuals at the end of the current control period. The Authority also notes that this is a new terminal which is proposed to be commissioned in the control period and the usage pattern of the Terminal area is bound to undergo revisions till the same is standardized.

6.2.7 The Authority noted that costs relating to Runways, Road, and Culverts is fully considered as Aeronautical assets.

6.2.8 The Authority noted that other Capital Expenditure spends have been identified by CIAL as Aeronautical or Non-Aeronautical and segregated accordingly. However, the Authority has noted certain inconsistencies in classification of certain assets between Aeronautical and Non-Aeronautical assets as given below:

6.2.8.1 Maintenance Capital Expenditure was considered entirely as Aeronautical – without evaluating the nature of assets (This has been not considered by the Authority as Capital Expenditure. See section on Regulatory Asset Base).

6.2.8.2 Expenses relating to alterations/ changes to Terminal is considered entirely as Aeronautical instead of segregating the same based on Terminal Area.

6.2.8.3 Parking Management system outside terminal was considered as Aeronautical asset, whereas it is a Non-Aeronautical service.

6.2.8.4 Certain Furniture/ Office Equipment were considered entirely as Aeronautical without segregating the same between Aeronautical and Non-Aeronautical services.

6.2.9 The Authority had a detailed discussion with CIAL on these and sought clarifications on the same. CIAL clarified that these are Aeronautical assets. The Authority however proposes to consider a part of the same as towards Non-Aeronautical services, in proportion of the terminal area.

6.2.10 Based on the above, the Authority has recomputed the ratio of Aeronautical and Non-Aeronautical assets. Table showing asset allocation as per CIAL and as recomputed by the Authority, (at Gross block level) for the second control period is as given below:

Table 13: Asset allocation ratio as per CIAL and as per Authority

Particulars (Gross block)	As per CIAL	As per Authority
Land	89.06%	Not considered as part of RAB. Refer below
Buildings & Civil Works	73.42%	69.28%

Particulars (Gross block)	As per CIAL	As per Authority
Golf Course Development	0.00%	0.00%
Runway, Roads and Culverts	100.00%	100.00%
Plant and Equipment	89.60%	86.79%
Office Equipment	81.95%	74.22%
Computers and Accessories	96.50%	91.85%
Furniture and Fixtures	93.22%	86.50%
Vehicles	96.34%	94.81%
Intangible assets	90.05%	84.21%

6.2.11 The Authority notes that actual asset costs could change from the projections made herein, based on which the allocation of costs between Aeronautical and Non-Aeronautical is also likely to change. Authority also notes that the allocation of assets depends on various factors including the value of Capital Expenditure, year of capitalization, actual usage of area etc. The Authority hence proposes to consider the above for the purpose of computation of ARR now and true up the same at the end of the second control period based on actuals.

6.2.12 The Authority also notes that area segregation done between Aeronautical usage and Non-Aeronautical usage of Terminal building needs to be technically validated and confirmed.

Proposal No 4. Regarding allocation of assets between Aeronautical and Non-Aeronautical services

4.a. Based on the material before it and its analysis, the Authority proposes

- **i. To consider allocation of assets and between Aeronautical and Non-Aeronautical services as detailed in Para 6.2.10 above for determination of tariff for the second control period.**
- **ii. To carry out a technical study on the area used between Aeronautical and Non-Aeronautical in the existing and new terminal once the operations are commissioned and stabilised.**
- **iii. To true up the details considered in Para 6.2.10 above based on the actuals and consider the same in the next control period.**

7. Regulatory Asset Base including Additional Capital Expenditure

7.1 CIAL's submissions on Opening Regulatory Asset Base and Capital Expenditure

7.1.1 Regulatory Asset Base of CIAL as a whole, for the first control period and the Opening RAB as at 1st April 2016, beginning of the second control period, is as follows:

Table 14: Regulatory Asset Base at the beginning of the second control period of CIAL (Rs. Crores)

Existing RAB	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Gross block as per books	553.58	574.13	640.12	711.15	732.10	771.73
Net block as per books	387.84	389.12	434.10	484.86	457.35	467.43

7.1.2 As per the submissions, the break-up of the Net block of Assets as of 1st April 2016, is as given below:

Table 15: Breakup of Opening Net Block of assets (Rs. Crores)

Asset Type	Net block as of 1st April 2016	RAB for Hybrid Till as per CIAL
Land	125.02	111.34
Buildings	143.71	109.22
Golf Course	16.62	0.00
Roads, Runways etc.	66.06	66.06
Other Assets – Plant & Machinery, Furniture, Office Equipment etc.	116.02	107.23
TOTAL	**467.43**	**393.85**

7.1.3 CIAL has, as part of its MYTP proposed a total of Rs. 2781 Crores worth assets to be capitalized in the second control period as given below.

Table 16: Assets proposed to be capitalised, as submitted by CIAL

Project details	Total cost proposed (Rs. Crores)	Year of Capitalisation
New Terminal, related works. proposed to be commissioned in March 2017	926.93	2017-18
Apron works, Roads proposed to be commissioned in March 2017	200.46	2017-18
Maintenance Capital Expenditure proposed	206.75	2019-20 and 2020-21
Commercial projects - Commercial complex, Family Entertainment Centre, Product display showrooms	353.63	Largely in 2020-21
New Cargo Warehouse and allied works	131.34	2018-19

Project details	Total cost proposed (Rs. Crores)	Year of Capitalisation
Runway recarpeting and Code F Correction	175.90	2019-20
Additional Parking Bays, Code F upgradation, Approach Road and other road works	310.85	Over 5 years of control period
Ground Handling related	70.45	
Other works - Including Terminal modification, new equipment purchase etc.	405.14	
TOTAL	**2,781.45**	
Of the above, addition considered as Aeronautical	**2372.32**	
Financing Allowance added under Hybrid Till (See Para 7.1.5 below)	**101.42**	
TOTAL ADDITION TO RAB UNDER HYBRID TILL	**2473.74**	

7.1.4 CIAL had submitted that CIAL has carried out Airport User Consultation for the New Terminal and allied works in 2013 and has submitted the minutes of the meetings to the Authority.

7.1.5 Apart from the above cost Rs. 117.1 Crores which is computed as Financing Allowance on the Work In progress assets (of which Rs. 101.42 crores pertains to Aero Assets) at the beginning of the Control period and on the assets proposed to be capitalised, as per Airport Guidelines.

7.2 Authority's examination of Opening RAB and Capital expenditure

7.2.1 **Land**: CIAL has in their submissions stated that Cochin airport has been developed over an area of 1,275 acres. The land was progressively acquired during the period 1993-1999 in multiple phases and aggregation of fragmented land parcels was done under the State Land Acquisition Act. CIAL has stated that the entire land was acquired at market rates by the Government of Kerala (GoK) and transferred to Cochin International Airport Limited at cost. CIAL has submitted that the total cost of land acquisition was Rs. 124 Crores (approximately) and no subsidy was provided by GoK or Government of India (GoI).

7.2.2 In respect of cost of land, the Authority notes that land is not a depreciable asset and if taken into RAB, the return over it has to be paid perpetually. Besides, if the principle of FRoR based on cost of capital is applied on cost of land, the aeronautical charges may have to be fixed at high rates. Since the Authority has so far not come across instances where the land cost is significant part of the RAB, it is necessary to examine all the ramifications of taking the value of cost of land into RAB. The Authority recognises that unless some kind of return is given on future land acquisitions for airport purposes, it could become a major hurdle for airport development. Therefore, it is proposed to conduct a study based on which the treatment to be given to cost of land can be determined on a sound footing.

Therefore, it is proposed to exclude the cost of land from the RAB till a final decision is taken on the issue.

7.2.3 The Authority noted that CIAL has carried out User Consultation for the New Terminal and allied works in 2013. The Authority, noted that while cost projected at the time of AUCC was around Rs. 850 Crores for Terminal, Apron and Roads being commissioned now, the actual cost is above Rs. 1000 Crores. The Authority had asked CIAL to submit details regarding the same. CIAL has provided major reasons for increase in cost.

7.2.4 The Authority noted that apart from new Terminal to be capitalized, a large value of Capital Expenditure is proposed to be spent during the second control period.

7.2.5 The Authority had asked CIAL to submit detailed workings for Projects individually costing above Rs. 5 Crores, on the need justification and break-up workings. Details submitted by CIAL on the same is as given in **Annexure 2.**

7.2.6 The Authority noted that apart from the above projects costing above Rs. 5 Crores, a total of Rs. 206.75 Crores is proposed to be spent as Maintenance Capital Expenditure. The Authority had enquired on the reason, necessity and workings for the Maintenance Capital Expenditure to which CIAL has responded as follows:

"Maintenance capital expenditure is required throughout the second control period from FY2017 to FY2021 to sustain the business and for efficient operations. The estimated total gross block for the second control period without the maintenance expenditure is INR 13,315 Cr. The proposed maintenance capex is around 1.5% of the total gross block for second control period. To minimize the burden on passenger through increase in aeronautical tariffs, the maintenance for the entire second control period has been planned only in FY20 and FY21"

7.2.7 The Authority noted that CIAL had listed the Individual assets proposed to be created and that the costs to be spent, including replacements/ replenishments etc. have been budgeted in detail, and asked CIAL to explain the need for the maintenance capital expenditure and break-up/ detail of items on which this is proposed to be spent. CIAL has responded that since there are generally some minor Capital expenditures that come up, CIAL has estimated a cost for the same.

7.2.8 The Authority noted that Maintenance Capex costs listed do not have a detailed break-up/ basis at this point of time and would need to be evaluated in detail and proposed to not consider this for the purpose of considering Capital Expenditure cost projections. The Authority will review this after the same is incurred and capitalised by CIAL.

7.2.9 The Authority had asked CIAL to provide details on how the terminal cost and the cost for proposed airside works viz Recarpeting, Additional Parking Bays, Rapid exit taxiways etc. were within the costs approved as per Normative Order of the Authority. CIAL has submitted as follows:

1. *… the estimate for Code E to Code F corrections was taken Rs 4750/- sq meters. In fact there is no prescribed rates given in the normative order for Code F type of runway. However, our estimates are more or less similar to Code E category works.*
2. *The estimate for rapid exit and vertical links are taken at Rs 5400/sq mtrs and these works is scheduled to be conducted on FY 2017 and FY 2018. This rate is an inflation adjusted figure on the price levels of 2015 and it was estimated within the normative rate of Rs. 4700/- sq mtr itself.*
3. *Similarly the estimate for construction of phase II parking bays is taken @Rs. 6500/-sq meters based on the fact that the cost of similar project just concluded at this airport is completed at Rs 6500/sq meters. However, it may please be noted that this figures includes the earthwork, soil stabilization works and stone column works upto subgrade level and the pavement cost alone would work out well below the normative figure of Rs. 4700/- per sq meters."*

7.2.10 The Authority noted that CIAL has projected for Dummy Aircraft and Aircraft Recovery equipment, which the Authority proposes to not consider for the purpose of estimating the additions to RAB. The Authority has requested CIAL to reconsider the need and the responsibility on who is required to provide for these, before these costs are actually incurred. The Authority also proposed to correct the cost of Aerobridges considered incorrectly in one of the capital expenditure estimations.

7.2.11 The Authority also noted that Financing allowance and the methodology for computation of the same is detailed in the Airport guidelines and would need to be provided to the Airport Operator. The Authority however proposed to consider only the Financial allowance on the Work in progress assets available as per the March 2016 financial statements and not on the future capital expenditure, as the financing allowance would be dependent on the period in which the amounts are spent, length of asset construction etc. The Authority also noted that the Interest cost capitalised to Opening CWIP has been additionally considered in the Opening WIP assets for computing Financing allowance, which has been rectified by the Authority.

7.2.12 Considering the above, the revised total Capital expenditure proposed to be considered by the Authority for the second control period and the amount to be considered as addition to RAB under Hybrid Till, out of the above, are as given below:

Table 17: Recomputed addition to RAB as per Authority (Rs. Crores)

	As per CIAL	As per Authority		
Project details	**Total**	**Total**	**Aero**	**Non-Aero**
New Terminal, related works proposed to be commissioned in March 2017	926.93	926.93	857.41	69.52
Apron works, Roads proposed to be commissioned in March 2017	200.46	200.46	200.46	0.00
Maintenance Capital Expenditure proposed	206.75	0.00	0.00	0.00
Commercial projects - Commercial complex, Family Entertainment Centre, Product display showrooms	353.63	353.63	0	353.63
New Cargo Warehouse and allied works	131.34	131.34	131.34	0.00
Runway recarpeting and Code F Correction	175.90	175.90	175.90	0.00
Additional Parking Bays, Code F upgradation, Approach Road and other road works	310.85	310.85	310.85	0.00
Ground Handling related	70.45	70.45	70.45	0.00
Other works - Including Terminal modification, new equipment purchase etc.	405.14	369.78	346.17	23.61
TOTAL	**2,781.45**	**2,539.34**	**2,092.59**	**446.75**
Of the above, addition considered as Aeronautical	**2,372.32**	**2,092.59**		
Financing Allowance added for Hybrid Till	**101.42**	**66.43**		
Total addition - Hybrid Till	**2,473.74**	**2,159.01**		

7.2.13 The Authority noted that other than the New International Terminal and allied works which have commenced before the beginning of second control period, no user consultation is initiated for the other projects. The Authority expects that CIAL will carry out user consultations with all stake holders at appropriate time for projects beyond the limit of Rs. 50 Crores as detailed in the Airport Guidelines.

7.2.14 The Authority notes that the RAB computed above is subject to changes based on the actual value of assets capitalised, the period of capitalization and changes in asset allocations. The Authority therefore proposes to true up the Capital Expenditure and the Average RAB based on actuals, at the end of the Control period.

Proposal No 5. Regarding Capital Expenditure and Depreciation

5.a. Based on the material before it and its analysis, the Authority proposes

i. To not consider Land as part of RAB for computing return, as detailed in Para 7.2.2 above, pending study to be conducted.

ii. **To consider Capital Expenditure detailed in Para 7.2.12 above for computing the Average RAB and return for the second control period.**

iii. **To true up the actual Capital Expenditure on actuals at the time of determination of tariff for the next control period.**

8. Depreciation

8.1 CIAL's submissions on Depreciation

8.1.1 CIAL has submitted that Depreciation on assets has been provided on the basis of rates prescribed in Schedule II of the Companies Act 2013 and for assets where useful life is not available in Schedule II, these are adopted based on the technical assessments made by the technical team of CIAL /Consultants and have been consistently following its useful life in its annual financial statements duly audited and certified by statutory auditors.

8.1.2 Accordingly, the useful life for computation of rates considered by CIAL for key assets are as below:

Table 18: Useful lives and depreciation rates adopted by CIAL

Asset Category	Useful Life (Years)	Depreciation Rate (after salvage value) %
Land	NIL	NIL
Buildings / Civil works	60	1.58
Roads	5	19.00
Runways , Roadways and Culverts – Runway, Parking Bay etc.	15	6.33
Plant and Equipments *	15	6.33
Office Equipments	5	19.00
Computers and Accessories - End use	3	31.67
Computers and Accessories - Servers	6	15.83
Furniture & Fixtures	10	9.50
Vehicles	8	11.88
Intangible Assets	5	19.00
Maintenance Capex Expenditure	21	4.43
** Some minor value of assets depreciated at lower useful lives*		

8.1.3 Accordingly, the total Depreciation considered by CIAL for the assets, under Hybrid Till, for the control period is as given below:

Table 19: Depreciation considered by CIAL in its submissions (Rs. Crores)

Depreciation - Hybrid Till	2017	2018	2019	2020	2021
Land	0	0	0	0	0
Buildings & Civil Works	9.57	13.92	15.13	16.75	19.88
Golf Course Development	0.00	0.00	0.00	0.00	0.00

Depreciation - Hybrid Till	2017	2018	2019	2020	2021
Runway, Roads and Culverts	21.15	32.68	34.71	42.44	50.87
Plant and Equipment	24.36	41.25	48.76	56.38	65.59
Office Equipment	1.22	2.46	2.57	2.70	2.85
Computers and Accessories	4.76	9.72	11.61	10.77	8.05
Furniture and Fixtures	1.12	1.36	1.42	1.49	1.59
Vehicles	0.60	0.78	0.84	0.88	0.94
Intangible assets	3.10	3.18	2.71	1.06	1.14
TOTAL	**65.89**	**105.36**	**117.75**	**132.46**	**150.90**

8.2 Authority's examination of Depreciation

8.2.1 The Authority notes that CIAL has adopted depreciation rates as per Companies Act. The Authority notes that useful life for airside works relating to Runway, Taxiway, Apron etc. and upgrades to these structures has been considered as 15 years and these are adopted in the Financial statements of the Company.

8.2.2 The Authority notes that useful lives and depreciation rates charged vary for certain assets among different airport Operators. In this regard, the Authority has separately commissioned a study to determine appropriate depreciation rates for regulation of airports in line with the provisions of the Companies Act 2013. The Authority will consider the recommendations of the study as and when a decision is taken on the study and the computations will be updated accordingly in RAB and true up depreciation.

8.2.3 Pending the above, in the interim, for the purpose of computing the depreciation rate in this consultation paper, the Authority proposes to consider the following useful lives and update the depreciation computations accordingly.

Table 20: Different useful lives considered by the Authority

Category of asset	Useful life as per CIAL (Years)	Useful life considered by the Authority (Years)
Runway, Taxiway, Apron	15	30
Roads	5	30
Baggage Inspection System	10	15
Crash Fire Tender	8	15

8.2.4 The Authority has accordingly recomputed the depreciation for the new assets. The Authority is aware that there are certain existing assets, relating to Airside works /roads etc. which are part of the

Opening RAB (Approx. Rs. 80 crores) on which also the proposed useful lives would apply and the computation of the revised depreciation for these assets would need reassessment of balance useful live for each asset and revising the depreciation. These are not considered for the purpose of the revision in depreciation and will be done once the depreciation study is finalized.

8.2.5 Accordingly, the recomputed value of Depreciation (also considering other changes to Capital Expenditure etc.) is as below:

Table 21: Depreciation recomputed by the Authority (Rs. Crores)

Depreciation on Existing Assets	**2017**	**2018**	**2019**	**2020**	**2021**
Land	-	-	-	-	-
Buildings & Civil Works	2.44	2.44	2.43	2.38	2.38
Golf Course Development	-	-	-	-	-
Runway, Roads and Culverts	10.26	9.27	7.14	6.28	3.92
Plant and Equipment	10.17	9.77	9.42	8.61	8.24
Office Equipment	0.03	0.03	0.01	0.00	0.00
Computers and Accessories	0.83	0.65	0.58	0.50	0.23
Furniture and Fixtures	0.65	0.38	0.34	0.28	0.24
Vehicles	0.43	0.40	0.36	0.33	0.28
Intangible assets	2.82	2.59	1.97	0.22	0.08
TOTAL	**27.62**	**25.52**	**22.25**	**18.61**	**15.37**
Depreciation - New Assets	**2017**	**2018**	**2019**	**2020**	**2021**
Land	0.00	0.00	0.00	0.00	0.00
Buildings & Civil Works	6.20	10.21	11.06	11.64	12.89
Golf Course Development	0.00	0.00	0.00	0.00	0.00
Runway, Roads and Culverts	4.03	8.39	9.80	13.67	18.40
Plant and Equipment	12.03	26.66	33.60	41.21	48.75
Office Equipment	1.08	2.20	2.31	2.42	2.54
Computers and Accessories	3.71	8.60	10.45	9.68	7.26
Furniture and Fixtures	0.42	0.88	0.97	1.07	1.18
Vehicles	0.15	0.37	0.47	0.53	0.62
Intangible assets	0.18	0.44	0.58	0.70	0.86
TOTAL	**27.79**	**57.74**	**69.25**	**80.93**	**92.51**
Grand Total	**55.41**	**83.27**	**91.50**	**99.54**	**107.88**

8.2.6 Accordingly, the Authority proposes to consider the recomputed depreciation for the purpose of computing Average RAB and reimbursement of depreciation.

Proposal No 6. Depreciation for the second control period

6.a. Based on the material before it and its analysis, the Authority proposes

i. To consider depreciation as per Para 8.2.5 above to compute Average RAB and depreciation to be considered in ARR.

ii. To true up the Depreciation based on the actual Capital Expenditure and the change in useful lives/ rates as per the results of the Depreciation study.

9. Regulatory Asset base

9.1 CIAL's submission of Regulatory Asset Base for the second control period

9.1.1 Based on the above, Average RAB computed by CIAL for the second control period under Hybrid is as given below:

Table 22: Average RAB computation as per CIAL, under Hybrid Till (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**	**TOTAL**
Opening RAB	393.85	1521.91	1564.05	1714.23	1926.31	
Additions during the year	1193.95	147.50	267.93	344.54	519.82	**2473.74**
Depreciation during the year	65.89	105.36	117.75	132.46	150.90	**572.36**
Closing RAB	1521.91	1564.05	1714.23	1926.31	2295.24	
Average RAB	**957.88**	**1542.98**	**1639.14**	**1820.27**	**2110.77**	

9.2 Authority's assessment of Regulatory Asset Base for the second control period

9.2.1 The Authority's individual assessment of Capital Expenditure, Land and Depreciation are as detailed in earlier paragraphs.

9.2.2 Considering the above, the Authority's computation of Average RAB under Shared Revenue Till (considering allocation of assets between Aeronautical and Non Aeronautical as detailed in Section 6 above) is as given below:

Table 23: Recomputed Average RAB as per Authority under Hybrid Till (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**
Opening RAB	374.90	1461.48	1508.52	1669.27	1820.92
Additions during the year	1142.00	130.31	252.25	251.18	383.28
Depreciation during the year	55.41	83.27	91.50	99.54	107.88
Closing RAB	1461.48	1508.52	1669.27	1820.92	2096.32
Average RAB	918.19	1485.00	1588.90	1745.10	1958.62
Less: Land excluded from RAB (Relating to Aero included in Opening RAB)	-102.39	-102.39	-102.39	-102.39	-102.39
RAB to be used for computing ARR	**815.80**	**1382.61**	**1486.50**	**1642.70**	**1856.23**

Proposal No 7. Regulatory Asset Base for the second control period

7.a. Based on the material before it and its analysis, the Authority proposes

i. **To consider Regulatory Asset Base as given in Para 9.2.2 above for the purpose of computation of Aggregate Revenue Requirement.**

ii. **To true up the Regulatory Asset Base at the end of the Control period based on actuals, at the time of determination of tariff for the next control period.**

10. Operating Expenditure

10.1 CIAL's submission on Allocation of expenditure between Aeronautical and Non-Aeronautical services and Authority's analysis of the same

10.1.1 Basis of allocation of Operating Expenses between Aeronautical and Non-Aeronautical Expenses as per CIAL is as given below:

Table 24: Basis of allocation of O&M expenses as per CIAL

O&M Expense Head	Basis for segregation of O&M cost
Employee cost	Total employee cost has been segregated into aeronautical and non-aeronautical in the proportion of number of employee providing aeronautical and non-aeronautical services. Employees working in commercial department, duty free department and golf course have been considered as employees providing non-aeronautical services.
Administration and General costs	Segregated into aeronautical and non-aeronautical in the proportion of number of employee providing aeronautical and non-aeronautical services.
Utilities Costs	Power, water and fuel charges have been prorated in the proportion of actual usage by aeronautical activities and non-aeronautical activities
Repair and maintenance costs	Repair and maintenance costs have been prorated in the proportion of gross block for aeronautical and non-aeronautical assets for buildings, runway, roads & culverts and plant & equipment.
Other operational expenses	These expenses pertain to safety & security expenses, vehicle operations & maintenance, housekeeping expenses, consumables and other miscellaneous expenses. Expenses have been segregated in the proportion of number of employee providing aeronautical and non-aeronautical services.
CUTE expenses	CUTE operational expenses incurred are considered to be aeronautical expenses.

10.1.2 The total salary cost has been divided into Aero and Non Aero. The following is the classification of departments into Aero and Non Aero:

Table 25: Classification of employees between Aeronautical and Non Aeronautical services

Designation/ Department	Classification
Managing Director and Executive directors	Aero
MD's office	Aero
Airport Operations/Elec/IT	Aero
Operations	Aero
IT & Communication	Aero
Electrical Engineering	Aero
Cargo Employees	Aero
Security	Aero

Designation/ Department	Classification
ARFF	Aero
CSO/ARFF	Aero
Secretarial	Aero
Human Resource	Aero
Finance	Aero
Public relations & Corp Communication	Aero
Duty Free	Non Aero
Civil Eng.	Aero
Kochi international Airport Security	Aero
Commercial	Non Aero
CIAL Golf & country club	Non Aero
Civil Eng. - Airport Works	Aero
Civil Eng. - LUP works	Aero

10.1.3 Based on the above classification, the % of personnel cost allocated to Aero, ass computed by CIAL is 96.14%. The method of calculation followed by CIAL is as follows:

Table 26: Calculation of % of employee cost to be allocated to Aero

Designation/ Department	Classification	Existing Employees	Additional Employees	Total Employees	Aero	Non Aero
Managing Director and Executive directors	Aero	3		3	0.48%	0.00%
MD's office	Aero	4		4	0.64%	0.00%
Airport Operations/Elec/IT	Aero	1	40	41	6.60%	0.00%
Operations	Aero	106		106	17.07%	0.00%
IT & Communication	Aero	14		14	2.25%	0.00%
Electrical Engineering	Aero	80		80	12.88%	0.00%
Cargo Employees	Aero	109		109	17.55%	0.00%
Security	Aero	63		63	10.14%	0.00%
ARFF	Aero	86		86	13.85%	0.00%
CSO/ARFF	Aero	1		1	0.16%	0.00%
Secretarial	Aero	7		7	1.13%	0.00%
Human Resource	Aero	8		8	1.29%	0.00%
Finance	Aero	15		15	2.42%	0.00%
Public relations & Corp Communication	Aero	1		1	0.16%	0.00%
Duty Free	Non Aero	4		4	0.00%	0.64%
Civil Eng.	Aero	2		2	0.32%	0.00%

Designation/ Department	Classification	Existing Employees	Additional Employees	Total Employees	Aero	Non Aero
Kochi international Airport Security	Aero	2		2	0.32%	0.00%
Commercial	Non Aero	17		17	0.00%	2.74%
CIAL Golf & country club	Non Aero	3		3	0.00%	0.48%
Civil Eng. - Airport Works	Aero	43	7	50	8.05%	0.00%
Civil Eng. - LUP works	Aero	5		5	0.81%	0.00%
Total		**574**	**47**	**621**	**96.14%**	**3.86%**

10.1.4 The proportion of Aero cost to Total expenses, category wise, as considered by CIAL, is as given below:

Table 27: Proportion of Aeronautical expenses as a % of Total expenses, category wise

Nature of expense	% of Cost considered as Aeronautical				
	2017	2018	2019	2020	2021
Total Repairs Costs	87.67%	87.67%	87.67%	87.67%	87.67%
Safety & Security expenses	96.14%	96.14%	96.14%	96.14%	96.14%
Power Charges	97.74%	97.74%	97.74%	97.74%	97.74%
Water Charges	97.74%	97.74%	97.74%	97.74%	97.74%
Fuel Generator Sets	97.74%	97.74%	97.74%	97.74%	97.74%
Vehicle Running & Maintenance expenses	96.14%	96.14%	96.14%	96.14%	96.14%
House Keeping expenses	96.14%	96.14%	96.14%	96.14%	96.14%
Consumables	96.14%	96.14%	96.14%	96.14%	96.14%
Other operational expenses	96.14%	96.14%	96.14%	96.14%	96.14%
CUTE operational expenses	100.00%	100.00%	100.00%	100.00%	100.00%
Payment to employees	96.14%	96.14%	96.14%	96.14%	96.14%
Admin Expenses	96.14%	96.14%	96.14%	96.14%	96.14%

10.1.5 Authority had reviewed the basis of segregation of expenses between Aeronautical and Non-Aeronautical assets and expenditure submitted by CIAL.

10.1.6 The Authority's analysis is as follows:

10.1.7 **Employee Costs**: The Authority noted that CIAL has segregated costs relating to Employees as Aeronautical and Non-Aeronautical based on the number of employees working in different departments and not based on the salary costs. The Authority also noted that CIAL has proposed to add team members for 2016-17 for the Terminal Operations, which is only commissioned by March 2017. The Authority also noted that common departments viz. MD's office, Finance, HR etc. have not been segregated between Aeronautical and Non-Aeronautical and they have been totally considered as Aeronautical costs which the Authority proposes to allocate between both Aeronautical and Non-Aeronautical.

10.1.8 Based on these factors, the has prepared revised computations and accordingly, the authority considers 82% for the first year and 92.5% for the rest of the years in the control period as ratio for allocation Personnel costs and other costs dependent on the ratio of Personnel costs as relating to Aeronautical services (Difference in ratio due to large number of employees being added to Operations from 2017-18, after commissioning of New Terminal).

10.1.9 The Authority noted that CIAL has considered the Power, water related utility charges levied from concessionares as Non-Aeronautical Revenue. The Authority proposes to consider these recoveries as a reduction to Utility cost and therefore consider the net costs relating to Utilities as Aeronautical after set off.

10.1.10 Recomputed Aeronautical Ratio of O&M expenses is as given below:

Table 28: Recomputed allocation ratio of Aeronautical Expenses to total expenses, category wise

Nature of expense	**% of Cost considered as Aeronautical**				
	2017	**2018**	**2019**	**2020**	**2021**
Total Repairs Costs	85.36%	85.36%	85.36%	85.36%	85.36%
Safety & Security expenses	82.00%	92.50%	92.50%	92.50%	92.50%
Power Charges	100.00%	100.00%	100.00%	100.00%	100.00%
Water Charges	100.00%	100.00%	100.00%	100.00%	100.00%
Fuel Generator Sets	100.00%	100.00%	100.00%	100.00%	100.00%
Vehicle Running & Maintenance expenses	82.00%	92.50%	92.50%	92.50%	92.50%
House Keeping expenses	82.00%	92.50%	92.50%	92.50%	92.50%
Consumables	82.00%	92.50%	92.50%	92.50%	92.50%
Other operational expenses	82.00%	92.50%	92.50%	92.50%	92.50%
CUTE operational expenses	100.00%	100.00%	100.00%	100.00%	100.00%
Payment to employees	82.00%	92.50%	92.50%	92.50%	92.50%
Admin Expenses	82.00%	92.50%	92.50%	92.50%	92.50%

10.2 CIAL's submission on Operating Expenditure estimates

10.2.1 CIAL has stated that CIAL has been cost effective in managing the airport and its operational expenditure per passenger is relatively lower as compared to some other major airports.

10.2.2 CIAL in their submissions has stated: *"Notwithstanding the low operational expenditure, CIAL has always ensured that customer service is always of high standards and has planned airport development in line with this objective. As a no-frills airport, Cochin International Airport has maintained consistent levels of service quality."*

10.2.3 The Operation and Maintenance (O&M) cost projected by CIAL consists of the employee costs, repairs & maintenance cost, utilities costs, other operational expenditure costs, administration and general costs. CIAL has submitted that while estimating future operations and maintenance costs, the relevant costs drivers such as inflation, increase in terminal area, increase in manpower and increased passenger traffic have been taken into account. The break-up of operating and maintenance expenses of previous years is as follows:

Table 29: Operating and Maintenance expenses over the Previous Years – Total cost (Rs. Crores)

Particulars	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Payment to employees	28.42	30.17	38.23	42.15	54.70	55.85
Operational Expenses	30.33	34.72	38.84	51.40	55.68	84.14
Cost of Goods sold	40.89	47.60	56.18	69.50	85.93	105.93
Admin Expenses	7.51	8.23	9.15	12.97	8.21	10.61
Total	**107.15**	**120.72**	**142.39**	**176.02**	**204.51**	**256.53**

10.2.4 Details of cost projected by CIAL for the current control period, under Hybrid Till is as follows:

Table 30: Projection of Operating and Maintenance Expenses, under Hybrid Till as per CIAL (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**
Payment to Employees	60.66	90.99	100.08	110.09	121.10
Repair cost	18.41	22.67	28.13	34.82	40.50
Safety & Security Expenses	4.73	6.70	7.11	7.54	8.01
Power, Water and Fuel	34.88	51.53	57.42	63.27	69.69
Vehicle Running Expenses	0.84	0.84	0.85	0.85	0.86
Housekeeping Expenses	11.56	18.53	20.16	21.93	23.86
Consumables	3.18	5.42	5.68	5.95	6.24
Miscellaneous Expenses	14.13	16.80	19.98	23.75	28.23
CSR Expenses	4.89	4.10	4.37	5.24	6.06
CUTE Operational Expenditure	3.75	3.91	4.08	4.26	4.45
Administration Expenditure	15.16	16.44	18.05	19.96	22.57
TOTAL OPERATING EXPENDITURE	**172.19**	**237.92**	**265.89**	**297.67**	**331.58**

Employees' Cost

10.2.5 The cost incurred towards employees in a year is determined by the headcount and the average compensation per employee.

10.2.6 Average compensation per employee is increased by 10% year on year and the average pay is revised every 5 years by 50%. The 5 yearly revision in salary has been assumed to be during year 2018.

10.2.7 The new international terminal will be commissioned in 2016-17 and the increase in employee strength on account of airport expansion has been considered by CIAL for forecasting the employees' cost. 47 new employees are proposed be added in FY 2017 on account of commissioning of new international terminal, in addition to transferring the erstwhile employees working in Duty free being to Operations.

Table 31: Details of Employee cost computed by CIAL (Rs. Crores)

Particulars	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Salary cost for existing employees	55.85	61.43	92.15	101.36	111.50	122.65
Growth Rate		10%	50%	10%	10%	10%
Salary for new employees		1.66	2.49	2.74	3.02	3.32
Growth Rate			50%	10%	10%	10%
Total Salary cost	55.85	63.10	94.64	104.11	114.52	125.97
% considered Aeronautical		96.14%	96.14%	96.14%	96.14%	96.14%
Employee cost - Aeronautical		**60.66**	**90.99**	**100.08**	**110.09**	**121.10**

Operational Expenses

Repairs Cost

10.2.8 Repairs cost is divided into two types – repairs to building and repairs to plant and machinery.

10.2.9 Repairs to Building:

10.2.9.1 Percentage of repairs to the gross block of buildings was calculated for the past 5 years. Average of such %s calculated was applied on the total closing gross block of buildings as on 31st March 2016. The amount so calculated was marked up by the Wholesale Price Inflation (WPI) to arrive at the projected repair cost.

10.2.9.2 Repair costs on new assets are calculated at a pre-determined % (Year 1: 0.50%; Year 2: 0.75%; Year 3: 1.00%; Year 4 onwards: 1.25%) of the new assets which are added every year.

10.2.10 Repairs Plant and Machinery:

10.2.10.1 Percentage of repairs to the gross block of "Runway, Roads and Culverts and Plant and Equipment" was calculated for the past 5 years.

10.2.10.2 Average of such %s calculated was applied on the total closing gross block of "Runway, Roads and Culverts and Plant and Equipment" as on 31st March 2016. The above result was then marked up by the Wholesale Price Inflation (WPI) to arrive at the projected repair cost.

10.2.10.3 Repair costs for the new assets were calculated at a % (Year 1: 0.50%; Year 2: 0.75%; Year 3: 1.00%; Year 4 onwards: 1.25%) of the new assets which were estimated to be added every year.

10.2.11 Details of projected Repairs & Maintenance cost is as given below:

Table 32: Details of Repairs & Maintenance cost computed by CIAL (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**
Repairs to Existing assets - Buildings	7.17	7.43	7.70	7.98	8.26
Repairs to Existing assets - Plant, Equipment and Runway	7.42	7.69	7.96	8.25	8.55
Repairs to New assets	6.41	10.74	16.42	23.49	29.39
Total Repairs & Maintenance	21.00	25.86	32.08	39.72	46.20
% considered Aeronautical	87.67%	87.67%	87.67%	87.67%	87.67%
Repair & Maintenance cost - Aeronautical	**18.41**	**22.67**	**28.13**	**34.82**	**40.50**

Safety & Security expenses

10.2.12 Safety and security expenses have been forecasted based on historical compounded annual growth rates (CAGR) and increase in terminal area. The historical 5 year CAGR (based on 2012-16) is calculated to be 6.14%. This has been used to project the expenses for the second control period. CIAL has also projected additional Security expenditure on account of commencement of operations from new terminal.

Power, Water & Fuel charges

10.2.13 Power, water and Fuel charges have been forecasted based on growth drivers such as increase in terminal area and WPI.

10.2.14 Power charges are projected by adding the product of power units supplied by KSEB and effective unit rate of KSEB and the product of power units supplied by CIAL Infra and effective unit rate of CIAL Infra. Effective Unit Rate of CIAL Infra is calculated at 90% of the Effective Unit Rate of KSEB.

10.2.15 Consumption of power units in the Terminal area has been increased as per increase in Terminal area, accounting for historical growth rate. City side and airside facilities' power consumption has increased proportionately as per the airport expansion on account of new international terminal. Power consumption by other cost centers has been increased by historical growth rate.

10.2.16 Water charges are calculated by multiplying the units consumed with the effective rate. Water is obtained from both internal sources and from Kerala Water Authority. Water consumption is assumed to grow at 10% annually. Unit rate is assumed to grow at 25% once in every 4 years.

10.2.17 CIAL has submitted that the water units' consumption for FY 2017 has been increased on account of the airport expansion. Out of total water units required, CIAL will generate 6 lakhs units per day through internal sources and remaining water units will be supplied by Kerala Water Authority.

10.2.18 Fuel Generator Sets cost is calculated by multiplying the total cost of 2016 by a growth %. Growth % is assumed to be 5%.

10.2.19 Summary of Power charges computed by CIAL is as given below:

Table 33: Details of utility cost computed by CIAL (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**
Power costs	33.49	50.23	55.26	60.79	66.87
Water costs	2.04	2.34	3.32	3.76	4.25
Fuel Generator charges	0.15	0.16	0.16	0.17	0.18
Total Utility cost	35.68	52.72	58.75	64.73	71.31
% considered Aeronautical	97.74%	97.74%	97.74%	97.74%	97.74%
Utility cost - Aeronautical	**34.88**	**51.53**	**57.42**	**63.27**	**69.69**

Other expenses

10.2.20 Vehicle running and maintenance expenses have been forecasted based on the historical growth rates. CAGR of the year 2011 to 2016 has been taken as the basis for forecasting expenses from 2017.

10.2.21 Housekeeping expenses have been projected based on growth drivers such as historical trends, increase in terminal area and CPI.

10.2.22 Consumables expenses have been projected based on growth drivers such as historical trends, increase in terminal area and CPI.

10.2.23 Other Operational Expenses - Other operational expenses consist of miscellaneous expenses and Corporate Social Responsibility (CSR) expenses. While miscellaneous expenses have been projected using the 5-year CAGR, CSR has been calculated at a % of the profits.

10.2.24 Summary of these other Operational Expenditure projected by CIAL is as given below:

Table 34: Details of Other Operational Expenditure computed by CIAL (Rs. Crores)

Particulars	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Vehicle Running Expenses	0.86	0.87	0.87	0.88	0.89	0.89
Housekeeping Expenses	6.67	12.02	19.27	20.97	22.81	24.82

Particulars	2016	2017	2018	2019	2020	2021
Consumables	1.72	3.31	5.64	5.91	6.19	6.49
Miscellaneous Expenses	12.37	14.70	17.48	20.78	24.70	29.37
CSR Expenses	8.46	5.09	4.26	4.55	5.45	6.31
Total	30.08	35.99	47.53	53.08	60.05	67.87
% considered Aeronautical		96.14%	96.14%	96.14%	96.14%	96.14%
Other Operating Expenditure - Aeronautical		**34.60**	**45.69**	**51.03**	**57.72**	**65.25**

CUTE Operational Expenditure

10.2.25 CIAL has stated in its submissions that it proposed to render CUTE, CUSS and BRS directly to airlines with effect from 1st January 2016 and the capital and operating expenditure for provision of these services would be incurred by CIAL.

10.2.26 CIAL has submitted that M/s SITA was awarded the contract through a competitive tendering process for supply, installation and commissioning of the hardware, software and equipment for remote connectivity services and M/s SITA would also provide operations and maintenance of the CUTE, CUSS and BRS facilities.

10.2.27 The extracts of the purchase orders entered into with M/s SITA as submitted by CIAL is as follows:

Table 35: Extracts of the Purchase Orders entered with M/s SITA

Purchase Order No.	Capex/ Opex	Particulars of the Purchase Order	Amount	Validity
CIL/PO/2015-16/SITA/001	Capex	Design, Supply, Installation, Testing and Commissioning of CUPPS, CUSS and BRS	Rs. 268,552,270	There are two phases in which the equipments would be installed. **Phase 1** - Implementation in the existing International and Domestic Terminal **Phase 2** - Implementation in the new International Terminal
CIL/PO/2015-16/SITA/002	Opex	Operation and Maintenance of CUPPS, CUSS, BRS and Networking	Rs. 103,647,953	7 years from the commissioning of Phase 1
CIL/PO/2015-16/SITA/003	Opex	Operation and Maintenance of CUPPS, CUSS, BRS and Network - Remote	USD 2,368,543	7 years from the commissioning of Phase 1

10.2.28 Based on the above, the projections have been made by CIAL as follows:

Table 36: Projection of CUTE Opex Fees (Rs. Crores)

Particulars	2017	2018	2019	2020	2021
Annual maintenance Opex to SITA India	1.50	1.50	1.50	1.50	1.50
Report Support Opex to SITA USA	2.25	2.41	2.58	2.76	2.95
Escalation		7%	7%	7%	7%
Total Opex	**3.75**	**3.91**	**4.08**	**4.26**	**4.45**

Administration and General Cost

10.2.29 CIAL, in their submissions have stated that different components of administrative and general costs have been projected based on relevant drivers like historical CAGR, inflation (WPI), an increase in terminal area and as % of gross block.

10.2.30 The forecast for different types of administration and general costs have been projected as follows:

Table 37: Basis of Projection of Admin and General Costs

Administration and General Costs Head	Basis for Projection of Admin and General Costs
Repairs to office equipment	Repairs to office equipment has been forecasted as 10% of gross block of office equipment based on the internal technical estimates.
Rent	Rent charges has been increased by 10% growth year on year as per the relevant agreements.
Rates and Taxes	Rates and taxes increased by the increase in terminal areas.
Printing and Stationery	Printing and stationery expenses have been forecasted, considering inflation.
Telephone, Postage and Communication	Telephone, postage and communication expenses increased by a CAGR over a period from FY 2011 to FY 2015.
Travelling expense	Travelling expenses increased by a CAGR over a period from FY 2011 to FY 2015.
Insurance	Insurance expenses have been projected using historical % of gross block estimates.
Advertisement duty free	Duty free advertisement expenses have been forecasted as an average of last 5 years' expenses as a % duty free sales.
Bank charges	Forecast was done based on the average of last 5 years' actual expenses as a % of total expenses.
Auditors remuneration	Auditors remuneration has been forecasted as an average of last 5 years' actual expenses as a % of total revenues.
Professional charges	Professional charges increased by a CAGR over a period from FY 2011 to FY 2015. CIAL submitted that the FY 2016 value was too low as compared to previous 4 years'

Administration and General Costs Head	Basis for Projection of Admin and General Costs
	values and expenses in FY 2016 was considered to be an exception. Hence, the forecast done based on 4 year CAGR – from FY 2011 to FY 2015.

10.2.31 The projections submitted by CIAL in this regard are as follows:

Table 38: Projection of Admin and General Costs (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**
Repairs to office equipment	1.59	1.66	1.74	1.89	2.05
Rent	0.06	0.06	0.07	0.07	0.08
Rates & Taxes	3.09	3.09	3.09	3.09	3.09
Printing & Stationery	0.55	0.57	0.59	0.61	0.63
Telephone, Postage & Communication	0.45	0.47	0.50	0.53	0.56
Travelling Expenses	2.06	2.40	2.80	3.26	3.80
Insurance	5.08	5.48	6.20	7.06	8.49
Advertisement (duty free)	0.51	0.58	0.70	0.85	1.02
Bank charges	0.59	0.82	0.91	1.02	1.14
Auditors Remuneration	0.10	0.12	0.14	0.16	0.18
Professional charges	1.55	1.71	1.88	2.07	2.28
Sitting fees	0.15	0.15	0.15	0.15	0.15
Total	15.77	17.10	18.77	20.77	23.48
% considered Aeronautical	96.14%	96.14%	96.14%	96.14%	96.14%
Admin Expenses - Aeronautical	**15.16**	**16.44**	**18.05**	**19.96**	**22.57**

10.3 Authority's Examination of Operating Expenditure

10.3.1 Authority has carefully analysed each component of the Operating Expenditure. Authority's Analysis is as follows:

Employee Cost

10.3.2 The Authority noted that the movement in employee cost over the past 5 years varies between 6% and 30%. The Authority also noted that the increase in the employee cost by 50% once in 5 years has been factored into the projections in 2018. The Authority enquired about these growth rates and trends considered by CIAL.

10.3.3 In response to the above query, CIAL stated that the pay revision of CIAL employees is done on a five year pattern for staff cadre and the revision of officers' salary is done once in 10 years. CIAL represented that incidentally, the revision of salary of both staff and officers' cadre was due in FY 2017, and hence a higher estimate was made for the FY 2017. Thereafter, the annual growth rate was pegged at 10%.

10.3.4 The Authority proposes to moderate the increase in costs considered to 25% in 2017, instead of 50% and at 7% for the other years instead of 10% proposed by CIAL for the purpose of projecting the Personnel cost and compute the costs attributable to Aeronautical services based on its analysis of allocation of expenses detailed earlier.

10.3.5 The Authority further noted that in 2016, the no. of employees in duty free was 72. From 2017, it was reduced to 4. The difference of 68 employees were added to the count of employees in the operations department. The Authority queried CIAL regarding the same. In response to the above query, CIAL stated that the Management has decided that employees in the duty free division would be re-allocated to airport operations as there is a need to increase the Operations Department's strength with the increase in Terminal area and commissioning of a new terminal.

Repairs Cost

10.3.6 The Authority noted that the repair costs were calculated as a % of the new assets which were added on a yearly basis. CIAL was asked to provide the basis for this % applied on the additions to assets. CIAL stated that this basis was arrived through internal assessment of repairs & maintenance costs for new assets.

10.3.7 The Authority noted that the repair costs are dependent on the value of assets proposed to be capitalized and the period / year of capitalization. Accordingly, the Authority proposes to consider the Repair costs projected by CIAL and consider the costs relating to Aeronautical Services based on its analysis of allocation of expenses detailed earlier.

Power, Water & Fuel Charges

10.3.8 The Authority noted that the consumption of total units of power had increased from 2.07 Crore units in 2016 to 3.38 Crore units in 2017 (63% increase) followed by an increase thereafter. The Authority queried CIAL on the rationale and basis for increase in the yearly consumption of power units.

10.3.9 CIAL stated that increase in power units was calculated based on historical CAGR of unit consumption and increase in operational areas.

10.3.10 The Authority also enquired about the basis of the assumption that the effective unit rate of power supplied by CIAL Infra as 90% of the effective unit rate of power supplied by KSEB, whereas there is a long term fixed agreement to buy power at Rs. 6.80. CIAL clarified that the fixed rate can be used instead of the rate considered by CIAL in projections. Accordingly, the Authority proposes to consider the rate for power supplied by CIAL Infra at Rs. 6.80 instead of the higher rate considered by CIAL.

10.3.11 For Water charges, the Authority noted that CIAL has considered 10% increase in consumption year on year which CIAL clarified was based on internal assessment, keeping in mind the commissioning of new international terminal and increase in passenger traffic.

10.3.12 The Authority noted that CIAL has considered 25% increase (once in 5 years) in per unit rate of water consumed. CIAL clarified that this is based on the past trend of step increase charged by the Government.

10.3.13 As detailed in Para 11.2.20 below, the Authority proposes to consider Utility cost net of recoveries from concessionaires as Aeronautical costs and proposes to recalculate the expenses accordingly.

Other Expenses

10.3.14 The Authority noted that CIAL has estimated the CSR cost as part of the Operating Expenditure. Being an appropriation from profits, the Authority proposes to not allow CSR expense in the projection of ARR for CIAL.

10.3.15 The Authority noted that advertisement expenses relating to duty free operations were classified as Aeronautical expenses. The Authority proposes to not include the marketing costs relating to duty free operations in the ARR projections under Hybrid Till for the second control period.

10.3.16 The Authority reviewed the CUTE Operational Expenditure with the agreement with M/s SITA. The Authority noted that 7% escalation considered by CIAL was not part of the agreement. Hence the Authority proposed to consider the cost without any escalation.

10.3.17 Considering the changes above, the Authority has recalculated the Operating Expenditure relating to Aeronautical Services as follows:

Table 39: Operating Expenditure recomputed by Authority under Hybrid Till (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**
Payment to Employees	58.79	70.96	75.93	81.25	86.93
Repair cost	17.89	21.97	27.23	33.32	37.54

Particulars	2017	2018	2019	2020	2021
Safety & Security Expenses	4.04	6.44	6.84	7.26	7.70
Power, Water and Fuel	26.05	39.35	43.83	48.25	53.14
Vehicle Running Expenses	0.71	0.81	0.81	0.82	0.82
Housekeeping Expenses	9.86	17.83	19.39	21.10	22.96
Consumables	2.71	5.22	5.47	5.73	6.00
Miscellaneous Expenses	12.06	16.17	19.22	22.85	27.16
CSR Expenses	0.00	0.00	0.00	0.00	0.00
CUTE Operational Expenditure	3.75	3.75	3.75	3.75	3.75
Administration Expenditure	12.46	15.11	16.52	17.92	19.88
TOTAL OPERATING EXPENDITURE	**148.32**	**197.60**	**218.99**	**242.24**	**265.89**

10.3.18 The Authority notes that all components of Operating Expenditure estimated above, could vary, especially considering the New Terminal being commissioned, large scale Capital expenditure being proposed by CIAL and other factors. The Authority, hence proposes to true up the costs based on actuals at the end of the current control period.

Proposal No 8. Regarding Operating Expenditure

8.a. Based on the material before it and its analysis, the Authority proposes

i. To consider the allocation of Operating Expenditure relating to Non-Aeronautical services as detailed in Para 10.1.10 above.

ii. To consider Operating Expenditure under Hybrid Till as detailed in Para 10.3.17 above for determination of tariff for the second control period.

iii. To true up the Operating Expenditure for the current control period, at the time of determination of tariff for the next control period.

11. Non Aeronautical Revenue (NAR)

11.1 CIAL's submissions on Non-Aeronautical revenues

11.1.1 CIAL has submitted that CIAL has always pioneered to augment their NARs, and this has consequently helped in subsidizing the aeronautical tariffs. CIAL's submission on Non-Aeronautical Revenue is classified into the following categories:

11.1.1.1 Duty free revenues

11.1.1.2 Non-aeronautical royalties, license fees and lease rentals

11.1.1.3 Utility service charges

11.1.1.4 Interest income

11.1.1.5 Other income

11.1.1.6 Revenue from Golf Course and other commercial activities

11.1.2 CIAL has submitted Non-Aeronautical Revenue details for the past 5 years and projected Non-Aeronautical Revenue (Note : Duty Free Revenues given for past period are Gross sale values) as below:

Table 40: Composition of Non Aero Revenues – Historic (Rs. Crores)

Non-Aero Revenue (Past)	**2012**	**2013**	**2014**	**2015**	**2016**
Non aero Royalty, license Fees & lease rentals	42.56	41.23	46.59	54.09	63.46
Duty Free Revenues ***(Gross Revenue as per Financials)***	93.64	112.71	138.41	165.36	212.49
Interest Income	13.70	13.49	12.45	11.07	17.26
Utility services charges	1.60	1.81	5.05	4.85	5.22
Other income	5.31	9.22	5.70	7.59	7.46
Golf Course, Trade center, Commercial Complex	2.22	2.88	3.93	3.86	4.72
Total Non-Aero Revenues	**159.03**	**181.34**	**212.13**	**246.82**	**310.60**

Table 41: Composition of Projected Non Aero Revenues as per CIAL for the Second control period (Rs. Crores)

Non Aero Revenue Projections	**2017**	**2018**	**2019**	**2020**	**2021**
Non aero Royalty, license Fees & lease rentals	73.18	99.24	120.26	142.74	152.83
Duty Free Revenues (Revenue Share only)	60.14	68.72	82.98	100.22	121.03
Interest Income	2.69	0.94	0.94	0.94	0.94
Utility services charges	8.88	13.11	14.61	16.10	17.74
Other income	8.20	9.02	9.93	10.92	12.01
Golf Course, Trade center, Commercial Complex	4.61	4.86	6.33	7.94	9.72

Non Aero Revenue Projections	2017	2018	2019	2020	2021
Total Non-Aero Revenues	**157.71**	**195.90**	**235.06**	**278.86**	**314.26**

11.1.3 Details of individual components of Non-Aeronautical Revenue is as given below.

Duty Free Revenues

11.1.4 A 100% subsidiary (CIAL Duty Free and Retail Services Limited – CDRSL) was set up which commenced operations in Jun-16. The entire duty free operations were hived off to this subsidiary.

11.1.5 CIAL has stated that:

“CIAL is partnering with a specialized agency for operations of duty free business to put in place international best practices for the new international terminal. CIAL is desirous of increasing the volume of the duty free operations significantly and bringing greater operational expertise and efficiencies into the duty free business. Accordingly, it plans to hive off these operations to a subsidiary for having greater focus. CIAL proposes to set up a 100% subsidiary company to carry out the duty free operations.”

11.1.6 Duty free revenue share is governed by the agreement between Cochin International Airport Limited and CIAL Duty Free and Retail Services Limited. This agreement was entered on 1-Jun-16. Extract of this agreement relating to revenue sharing is as follows:

"Space for Departure shop space, arrival shop space and warehouse space will be provided by CIAL to the vendor. Fee to CIAL - 25% of the net sales"

11.1.7 Duty free revenues have been projected by multiplying the international passenger traffic and the revenue per international passenger. The international passengers have been estimated to grow at 12% from 2019. Per passenger revenue has been estimated to grow at 8% annually.

11.1.8 Based on the above, CIAL’s duty free revenues for the second control period were forecasted as follows:

Table 42: Projection of Duty Free Revenues for Second Control Period

Particulars	2017	2018	2019	2020	2021
Duty free Revenue per passenger Rs.	494.70	534.52	577.55	624.04	674.27
Growth rate	8%	8%	8%	8%	8%
Duty Free Revenue Rs. Crores	60.14	68.72	82.98	100.22	121.03

Non Aero Royalty and License Fee Income

11.1.9 Non Aero Royalty and License fee income comprise of the following:

11.1.9.1 License Fee Carpark

11.1.9.2 License fee Catering Services

11.1.9.3 License Fee Space/Royalty – sub-divided into Meet & Greet revenue share, Revenue Sharing Rent (Retail & FB), Fixed Rent, Minimum Annual Guarantee

11.1.9.4 Fuel throughput Lease rentals

11.1.9.5 Lease rentals from CIAL infra

11.1.10 ***License Fee Carpark:*** Agreement has been entered into between CIAL and Bency & Co for license for management of car park in front of International and Domestic terminal and in front of domestic cargo terminal. Monthly license fee is Rs. 56.56 lakhs (for existing facility). Projected income has been calculated at the amount paid for in 2016 and increasing the same by 10% every year. The projections submitted by CIAL in this regard was as follows:

Table 43: Projection of License Fee for Car Park (Rs. Crores)

Particulars	2017	2018	2019	2020	2021
License Fee Carpark	7.90	8.69	9.56	10.52	11.57

11.1.11 ***License Fee Catering Services****:* Agreements were entered into with Lulu Flight Kitchen and Anjali Hotels Limited. The fees agreed is 8% of the monthly gross turnover. The annual projections for the second control period was as follows:

Table 44: Projection of License Fee for Catering Services (Rs. Crores)

Particulars	2017	2018	2019	2020	2021
License Fee Catering Services	2.56	2.74	3.04	3.37	3.73

License Fee Space/Royalty: This revenue is further sub-divided into:

11.1.12 **Meet & Greet revenue share:** This fees has been calculated at the amount paid for in 2016, increased by 10% every year.

11.1.13 ***Revenue Sharing Rent (Retail & FB):*** This fees has been calculated at the amount paid for in 2016, increased by 10% every year.

11.1.14 ***Fixed Rent*** **-** further divided into Airline office space and other commercials, Retail space rentals and F&B. It has been assumed that this rent shall increase based on the change in proposed leased space and with an escalation of 10%

11.1.15 ***Minimum Annual Guarantee:*** Minimum annual guarantee income is calculated based on growth in the leased area. Lease area increase in 2016-17 has been considered to be available for half year, due to new terminal opening and time taken to setup the concessions. CIAL has submitted that the award of airport concessions for different non-aeronautical activities in the new terminal would take place in due course of time.

11.1.16 Projections submitted by CIAL for License fee – space royalty is as follows:

Table 45: Projections for License Fees for Space/Royalty (Rs. Crores)

Particulars (Amount Rs. Crores)	**2017**	**2018**	**2019**	**2020**	**2021**
Meet & Greet revenue share	0.08	0.09	0.10	0.11	0.12
Revenue Sharing Rent (Retail & FB)	5.68	6.24	6.87	7.56	8.31
Fixed Rent	20.34	27.91	35.28	43.52	48.83
Minimum Annual Guarantee	26.55	42.72	53.42	64.41	65.60
Total License Fee Space/Royalty	**52.65**	**76.96**	**95.67**	**115.59**	**122.86**

11.1.17 ***Fuel Throughput Lease rentals:*** Agreement has been entered into between CIAL and BPCL. Hydrant complex was built by BPCL covering an area of 22550 sq. m. The base lease rentals were taken as per the existing MOU. Escalation terms provided in the agreement was 12.5% per annum. Projected revenues have been calculated by CIAL as "sq mt * rent per sq mt * escalation %". Projection of fuel throughput lease charges are provided below:

Table 46: Projection of Fuel Throughput related rental income (Rs. Crores)

Particulars	**2017**	**2018**	**2019**	**2020**	**2021**
Fuel throughput Lease rentals	2.30	2.37	2.67	3.00	3.38

11.1.18 ***Lease rentals from CIAL infra:*** Two agreements were entered into with CIAL Infrastructures Limited. The extracts of the agreement are as detailed below:

11.1.18.1 **Agreement 1:** 21.3086 Hectares = 52.65283 acres of land leased for 30 years from 1st Aug 2015 to 31st July 2045. Yearly rent - Rs. 5.26 lakhs @ Rs. 10,000 per acre. Land so leased out to be used only for setting up of solar power plant.

11.1.18.2 **Agreement 2:** 13.16 acres - Rent Rs. 1.31 lakhs @ Rs. 10,000 per acre. This land ought to be used only for the administrative office of CIAL Infrastructure Limited.

Interest Income

11.1.19 Interest income has been anticipated at 5% on the average deposit balance that will be maintained.

11.1.20 The deposit balance for each year is projected by applying the same ratio of deposits to total cash and bank balances as in the previous years.

11.1.21 The projections given by CIAL in this regard for the second control period are as follows:

Table 47: Projections for Interest Income (Rs. Crores)

Particulars	2017	2018	2019	2020	2021
Interest Income	2.69	0.94	0.94	0.94	0.94

Other Income

11.1.22 Other income is divided into the following categories:

- Income from rent & services from other activities
- Miscellaneous Income
- Public Admission Fees

11.1.23 All components of Other Income have been calculated at the amount paid for in 2016 with an increase of 10% every year.

11.1.24 Accordingly, CIAL submitted the following projections in respect of other income:

Table 48: Projection of Other Income (Rs. Crores)

Particulars	2017	2018	2019	2020	2021
Other Income	8.20	9.02	9.93	10.92	12.01

Utility Service charges

11.1.25 Utility services charges is collected from various parties as a recovery for the utilities such as heat, light, power and water used by them. This is the area leased out for duty free shops, kiosks, etc.

11.1.26 The respective agreements with the shops, kiosks, etc. mention the rate at which use of utilities shall be charged.

11.1.27 Utility services charges are calculated at a percentage on the total Power, Water & Fuel charges, based on the past trend. The projections provided by CIAL in this respect is as follows:

Table 49: Projections provided by CIAL for Utility Service Charges income (Rs. Crores)

Particulars	2017	2018	2019	2020	2021
Utility services charges	8.88	13.11	14.61	16.10	17.74

Golf Course, Trade center, Commercial Complex

11.1.28 This income consists of the following categories of revenue:

11.1.29 **Income from Golf Course and Facilities:** A standard Rs. 2.1 Crores has been projected for every year.

11.1.30 **Income from Trade Fair Centre:** This fees has been calculated at the amount collected in 2016 plus 10%. It has been assumed that this license fee shall increase by 10% every year.

11.1.31 **Income from Commercial Complex:** Revenue projection is a product of rate per sq mt and area in sq mts. Rate per sq mt is escalated by 5% every year. The area leased out has been gradually increased over the years. CIAL submitted that the total area of the proposed commercial complex was 10,582 sq mts and it was expected that it would take at least four years for the commercial complex to get fully occupied.

11.1.32 Total income projected under this head is as follows:

Table 50: Details of Miscellaneous Income - Non-Aeronautical (Rs. Crores)

Particulars	2017	2018	2019	2020	2021
Income from Golf course	2.14	2.14	2.14	2.14	2.14
Income from Trade fair centre	2.47	2.72	2.99	3.29	3.62
Income from Commercial Complex	0.00	0.00	1.20	2.51	3.95
TOTAL	4.61	4.86	6.33	7.94	9.72

11.1.33 Based on the above, summary of Non-Aero Revenues computed by CIAL is as below:

Table 51: Summary of Non Aero Revenues proposed by CIAL (Rs. Crores)

Particulars		2017	2018	2019	2020	2021
Duty Free Revenues		60.14	68.72	82.98	100.22	121.03
Non aero Royalty, license Fees & lease rentals						
	Non Aero Royalties	7.71	8.48	9.33	10.26	11.29
	License fee car park	7.90	8.69	9.56	10.52	11.57
	License fee Catering services	2.56	2.74	3.04	3.37	3.73
	Meet and Greet Revenue Share	0.08	0.09	0.10	0.11	0.12
	Revenue sharing Rent (Retail & F&B)	5.68	6.24	6.87	7.56	8.31
	Fixed Rent - Airline office and commercial	15.29	16.88	18.77	20.99	23.46
	Fixed Rent - Retail space rent	4.73	10.40	15.81	21.70	24.46
	Fixed Rent - F&B	0.32	0.63	0.69	0.83	0.92
	Minimum Annual Guarantee	26.55	42.72	53.42	64.41	65.60
	Fuel Throughput rentals	2.30	2.37	2.67	3.00	3.38

Particulars	2017	2018	2019	2020	2021
Lease Rentals - CIAL Infra	0.07	0.07	0.07	0.07	0.07
Interest Income	2.69	0.94	0.94	0.94	0.94
Utility Service Charges	8.88	13.11	14.61	16.10	17.74
Other Income	8.20	9.02	9.93	10.92	12.01
Golf course, Trade centre, Commercial Complex	4.61	4.86	6.33	7.94	9.72
Non Aero Revenues - Total	**157.71**	**195.90**	**235.06**	**278.86**	**314.26**
30% of above	**47.31**	**58.77**	**70.52**	**83.66**	**94.28**

11.2 Authority's Examination of Non-Aeronautical Revenues

Duty Free Revenues

11.2.1 The Authority analyzed the trend in the profits from duty free operations on an approximate basis in the past 5 years in the control period, which was around 30%, which was also confirmed by CIAL during discussions with Authority.

11.2.2 The Authority noted that CIAL has presently hived off the Duty free operations to a wholly owned subsidiary and revenue share of 25% has been agreed to be paid as per the agreement. However, the Authority considers that since the income would be earned by the wholly owned subsidiary, the entire earnings from that activity should be considered as Non-Aeronautical revenues for computing the Aggregate Revenue Requirement. Hence the Authority proposes to consider 30% of the Revenues of the Duty Free as share of income of the Airport Operator, instead of 25% stated in the agreement.

11.2.3 On applying 30% revenue share as detailed above, the revised duty free revenues to be considered for inclusion in ARR is worked out as follows:

Table 52: Revised Duty Free Revenues to be considered (Rs. Crores)

Particulars	2012	2013	2014	2015	2016
Recomputed Duty Free Revenues	72.17	82.46	99.58	120.26	145.23

Non Aero Royalty and License Fee Income

License Fees from Car Park

11.2.4 The Authority noted that the number of car parking slot capacity has increased by 900 slots (82%) with the opening of the international terminal but the % increase projected in license fees amount for car park was 10%. CIAL was queried on this disproportionate increase. The Authority also queried about the current utilization of the car parking slots.

11.2.5 CIAL, in response to these two queries, stated that, in order to de-congest the car parking facility during peak hours and to improve the service quality levels, new car parking slots were constructed and the decision regarding the number of slots to be added were based on the aforementioned factors as well as the topographical factors and ease of development. The exclusive right for car park management was given to a single licensee based on an open competitive tender and was not based on the number of slots and this agreement also contained an annual escalation clause of 10%, hence the same was inbuilt in the projection model. CIAL also submitted that on completion of the tenure of the existing agreement, car park management service would be tendered out again on a competitive bidding basis.

License Fee Catering Services

11.2.6 The Authority analyzed the revenue per person considered by CIAL in its projection of License fee revenue from Catering services, over the 5 years in the control period. The Authority noted that while CIAL had given effect to an increase in the traffic, there is no change in rate per passenger. CIAL, in reply to this query, stated that the projections are on the basis of contractual arrangements and management's estimates and as per the aforementioned statistics, CIAL expects the revenue to increase only in line with the growth in traffic.

Meet and Greet Revenue; Revenue Sharing Rent (Retail and F&B)

11.2.7 The Authority reviewed the trends of per passenger revenue relating to "Meet and greet revenue" and "Revenue sharing rent (Retail and F&B)" which were reducing over the years in the projections submitted by CIAL.

11.2.8 CIAL, in their reply, stated that 'Meet and Greet services' was recently introduced at this airport on an experimental basis and this service was not considered to be lucrative at this airport as there were no takers to provide this service. The Ground Handling Agencies were entrusted with this activity. As per the provisional letter, a percentage of the total revenue from this service ought to be shared with CIAL. Further, this provisional allotment letter does not contain any clause on escalation / revision / passenger traffic based growth. However, CIAL has assumed 10% growth in the annual revenues from this service and that the Management of CIAL does not anticipate a substantial increase in this revenue considering the new service introduced in the airport.

Fixed Rent

11.2.9 The Authority compared the rate of growth of rental space leased out and the rental income and observed that the aforementioned rates were not directly proportional. Reasons for the same were elicited from CIAL.

11.2.10 CIAL stated that the rate of growth of rental income and leased out area were not directly proportional due to the fact that award of airport concessions for different non-aeronautical activities in the new terminal would take place in due course of time. In addition, it is expected that during the first year, the income from this source would be available only for half a year as a result of mid-year awards and time taken to setup the concessions.

Minimum Annual Guarantee

11.2.11 The Authority notes that the computation of Minimum Annual Guarantee formula for FY 2017-18 has not been done in line with the computations done for the other items as a result of which the Minimum Annual Guarantee was not projected correctly. The Authority sought clarification from CIAL on the same. CIAL has confirmed that Minimum Guarantee has been projected with increase commensurate with the availability of space and the demand.

Fuel Throughput Lease Rentals

11.2.12 The Authority noted that the area for which the lease rentals for fuel throughput ought to have been collected was reduced from 24,550 sq mt to 22,500 sq mt from FY 2018. CIAL stated that it had excluded 2,000 sq mt of land on account of operational requirement pertaining to New International Terminal and modification of existing terminals and hence, the actual land to be leased out to BPCL under the new agreement was reduced to 22,500 sq mt and accordingly the projections were made in the model.

11.2.13 The Authority also queried CIAL on why, while the fuel throughput royalty was considered as Aero revenue, the lease rentals portion was classified as Non-Aero revenue. In response to this query, CIAL has stated that fuel throughput royalty has been treated as aero revenue as per the AERA guidelines and all other land lease rentals including the land leased to fuel hydrant operator were treated as non-aero revenue.

11.2.14 However, as these relate to revenues realized from Aeronautical service providers, the Authority proposes to consider this revenue as part of Aeronautical Revenue. Similarly, the Authority proposes to consider the revenue / rentals collected from Airlines and other agencies allied with the Aeronautical services as Aeronautical Revenue.

Interest Income

11.2.15 The Authority noted that interest income had not been calculated and accrued on PSF cash balance of Rs. 104 Crores. CIAL stated that PSF cash balance is kept outside the purview of airport operations for the purpose of MTYP calculations.

11.2.16 The Authority noted that Clause 2.44 in the Annual Report of the company for the year ended 31st March 2016 which states as:

"The Financial Statements of the company do not include accounts for Passenger Service Fee – Security component (PSF SC) as the same are maintained separately in the fiduciary capacity by the Company on behalf of Government of India and are governed by Standard Operating Procedures issued by the Ministry of Civil Aviation, Government of India from time to time."

11.2.17 The Authority noted that CIAL has projected the cash availability based on the future capital expenditure and cash flow required for the same and consequently projected the cash available and kept in deposit, which is relatively lower for the control period. The Authority noted that actual value of capital expenditure and the time of incurring the same would have an impact on the cash balance available and on the amounts kept in Interest bearing deposit accounts.

Other Income

11.2.18 The Authority directed CIAL to provide the breakup of other income for the amounts projected from FY 2017. CIAL provided the following information:

Table 53: Details of Other Income (Rs. Crores)

Other Income	2016	2017	2018	2019	2020	2021
Income from rent & services from other activities	0.12	0.13	0.14	0.16	0.17	0.19
Miscellaneous Income	2.99	3.29	3.62	3.98	4.38	4.82
Public Admission Fees	4.35	4.78	5.26	5.79	6.37	7.01
Total other income	7.46	8.20	9.02	9.93	10.92	12.02
Growth %		10%	10%	10%	10%	10%

Utility Service Charges

11.2.19 The Authority enquired CIAL about the basis for assuming the growth rate for Utility service charge revenue. CIAL replied stating that utility service charges were directly linked to utility costs and hence, was calculated based on average of utility service charges as a % of total utility costs for the last 5 years.

11.2.20 The Authority notes that CIAL has not rendered any separate Non-Aeronautical service for considering these Utlility charges as Non-Aeronautical Revenue. The Authority generally considers these as an adjustment to Utility cost which is a part of Operating and Maintenance Expenses and accordingly proposes to consider the same in case of CIAL also.

Other Non-Aero Revenues

11.2.21 The Authority noted that the income form Golf course facilities were projected to be a standard Rs. 2.1 Crores. CIAL was requested to provide the basis for the same. In response to this query, CIAL stated that the as per the prevailing membership norms, individual and corporate golf members needs to pay an annual maintenance fee of Rs. 9,000 and Rs. 20,000 respectively and that the indicated figures were arrived at by multiplying the mentioned rates with number of members. CIAL anticipated no change in the number of members the next 5 years. Hence, the same amount was projected as income for the entire period of 5 years of the second control period.

11.2.22 The Authority notes that in certain cases, CIAL has taken a conservative estimate on Non-Aeronautical revenues, which, in actuals could be higher. The Authority is also cognizant of the fact that with the new terminal being commissioned in between in the Control Period, the Non-Aeronautical revenues would need to be stabilized. The Authority therefore proposes to true up the Non-Aeronautical Revenue based on actuals at the end of the control period and consider the same at the time of determination of tariffs for the next control period.

11.2.23 Considering the above, the recomputed Non-Aeronautical Revenue is as given below:

Table 54: Summary of Non Aeronautical revenue recomputed by the Authority (Rs. Crores)

Recomputed Non-Aero Revenues		**2017**	**2018**	**2019**	**2020**	**2021**
Duty Free Revenues		72.17	82.46	99.58	120.26	145.23
Non aero Royalty, license Fees & lease rentals						
	Non Aero Royalties	7.71	8.48	9.33	10.26	11.29
	License fee car park	7.90	8.69	9.56	10.52	11.57
	License fee Catering services	2.56	2.74	3.04	3.37	3.73
	Meet and Greet Revenue Share	0.08	0.09	0.10	0.11	0.12
	Revenue sharing Rent (Retail & F&B)	5.68	6.24	6.87	7.56	8.31
	Fixed Rent - Airline office and commercial	12.22	13.44	14.78	16.26	17.89
	Fixed Rent - Retail space rent	4.73	10.40	15.81	21.70	24.46
	Fixed Rent - F&B	0.32	0.63	0.69	0.83	0.92
	Minimum Annual Guarantee	26.55	42.72	53.42	64.41	65.60

Recomputed Non-Aero Revenues		2017	2018	2019	2020	2021
	Fuel Throughput rentals	Considered as Aeronautical Revenue				
	Lease Rentals - CIAL Infra	0.07	0.07	0.07	0.07	0.07
Interest Income		2.69	0.94	0.94	0.94	0.94
Utility Service Charges		Reduced from O&M Expenses				
Other Income		8.20	9.02	9.93	10.92	12.01
Golf course, Trade centre, Commercial Complex		4.61	4.86	6.33	7.94	9.72
Non Aero Revenues - Total		**155.50**	**190.72**	**230.39**	**275.08**	**311.78**
30% of above		**46.65**	**57.22**	**69.12**	**82.52**	**93.53**

Proposal No 9. Regarding Non-Aeronautical Revenues

9.a. Based on the material before it and its analysis, the Authority proposes

i. To consider Non Aeronautical Revenues as detailed in Para 11.2.23 above for determination of tariff for the second control period.

ii. To true up the actual Non-Aeronautical Revenues on actuals, at the time of determination of tariff for the next control period.

12. Cost of Equity, Cost of Debt and Fair Rate of Return (FRoR)

12.1 CIAL's submissions on Cost of Equity, Debt and FRoR

12.1.1 CIAL has stated in its submissions that the Fair Rate of Return (FRoR) has been calculated as per Tariff Guidelines. The computation of FRoR has been done as below:

$$FRoR = g * R_d + (1 - g) * R_e$$

Where,

g = Weighted Average Gearing for the control period i.e. [Debt/(Debt + Equity)]

R_d = Weighted Average Pre-Tax Cost of Debt for the control period

R_e = Post-Tax Cost of Equity.

Cost of Equity

12.1.2 An overview of the shareholder's funds of CIAL as of March 2016 is as below:

Table 55: Overview of Shareholders' Funds (Rs. Crores)

Shareholders' funds (Existing, as per Balance sheet)	2011-12	2012-13	2013-14	2014-15	2015-16
Share Capital	306.06	306.06	306.06	306.06	382.57
Share Premium	-	-	-	-	306.06
Surplus in P&L	181.33	231.87	291.79	344.28	415.89
Total Shareholders' funds	487.39	537.93	597.85	650.34	1,104.53
Government Grant for Golf Course	8.00	8.00	8.00	8.00	8.00

P&L Details	2011-12	2012-13	2013-14	2014-15	2015-16
Profit for the year	102.03	111.41	124.37	144.58	175.22
Less: Dividend and Tax on Dividend	55.06	60.87	64.45	78.00	103.60
Less: Depreciation adjustment	-	-	-	14.10	-
Balance carried to Balance Sheet	46.97	50.54	59.92	52.48	71.62

12.1.3 The projected shareholders' funds, as submitted by CIAL is as follows:

Table 56: Projection of Shareholders' Funds (Rs. Crores)

Shareholders' funds (Estimated)	2017	2018	2019	2020	2021
Share Capital	382.57	382.57	382.57	382.57	382.57

Shareholders' funds (Estimated)	**2017**	**2018**	**2019**	**2020**	**2021**
Share Premium	306.06	306.06	306.06	306.06	306.06
Surplus in P&L	566.86	676.50	800.15	969.27	1,181.08
Total Shareholders' funds	1,255.49	1,365.14	1,488.78	1,657.91	1,869.71

12.1.4 CIAL has assumed a cost of equity of 16% to compute FRoR and return on RAB in line with the other Airport Tariff orders issued by AERA. CIAL in its submission, has also requested the Authority to consider a higher cost of equity (say 20%) stating the following reasons:

"During the initial years, the returns to CIAL's investors did not match the expected RoE because of perpetual low tariffs that have benefited the users.

CIAL will also need to acquire additional land and fund the same. Cochin International Airport also needs to plan in advance for the airport expansion given the challenges around land acquisition and financing"

Cost of Debt

12.1.5 CIAL had a debt exposure of Rs. 148.56 Crores as on 31st March 2016.

12.1.6 The term loan represents the disbursement of the project term loan of Rs. 500 Crores sanctioned by M/s Federal Bank for the New International Terminal project. The term loan with interest is repayable in 156 equal monthly installments and first such installment shall commence after a period of 36 months from March 2015 (i.e.) the date of first disbursement of the loan. The repayment holiday is applicable for Principal amount. Interest and other charges are payable as and when due. The applicable interest rate of the loan is the Base Rate of Federal Bank.

12.1.7 The term loan is secured by exclusive first charge on the project assets by way of simple mortgage of the portion of land earmarked for the project by registration of Deed of Mortgage along with the new International terminal building under construction and also having second charge by way of hypothecation of fixed assets (excluding land and building, runways, golf course and vehicles).

12.1.8 To fund the further capital expenditure in the second control period, CIAL, in its projections, has considered raising debt year on year from the banks.

12.1.9 The weighted average cost of debt (Rd) for the second control period is assumed to be 9.63%. This is the rate of interest paid on the existing term loan.

12.1.10 The projected debt exposure over the next few years as per CIAL is given below:

Table 57: Projection for Additional Debt as per CIAL (Rs. Crores)

Additional Debt	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Opening Balance	148.56	515.68	521.71	613.37	730.33
Addition	367.12	6.03	141.66	168.53	203.38
Repayment	-	-	50.00	51.57	52.17
Closing Balance	**515.68**	**521.71**	**613.37**	**730.33**	**881.55**

Gearing Ratio

12.1.11 The historic trend in the mix of debt and equity of CIAL is as follows:

Table 58: Actual Composition of Funds till March 2016 (Rs. Crores)

Historic Debt/ Equity composition	**2012**	**2013**	**2014**	**2015**	**2016**
Total Equity (E)	495.39	545.93	605.85	658.34	1,112.53
Total Debt (D)	0.20	-	-	25.00	148.56

12.1.12 The weighted average gearing ratio (i.e) Debt/ (Debt+Equity) was about 4.84%. This was attributable to low debt exposure in the initial years. The airport's functions were mainly carried out through internal accruals.

12.1.13 CIAL has submitted that capital expenditure during the second control period would be financed through existing cash with CIAL, funds generated through business operations and fresh debt.

12.1.14 As a result of availing fresh debt, the composition of funds under Hybrid Till and FRoR as projected by CIAL is as follows:

Table 59: Projection of Composition of Funds and FRoR for Second Control period by CIAL

FRoR	**2017**	**2018**	**2019**	**2020**	**2021**
Total Equity (E)	1,263.49	1,373.14	1,496.78	1,665.91	1,877.71
Total Debt (D)	515.68	521.71	613.37	730.33	881.55
Cost of Debt	9.63%	9.63%	9.63%	9.63%	9.63%
Cost of Equity	16.00%	16.00%	16.00%	16.00%	16.00%

Weighted average Gearing (D/D+E)	29.82%
Weighted average cost of debt	9.63%
FRoR	14.10%

12.2 Authority's examination of CIAL's submissions on Cost of Equity, Debt and FRoR

12.2.1 The Authority noted the request for a higher % of cost of equity to be considered while calculating the FRoR. The Authority also noted that CIAL has been established and running the airport for over 15 years with consistent trend of profits and dividends. Considering the past operations, profitability and established traffic base, the Authority proposes to consider return on equity at 14% for CIAL for the second control period.

12.2.2 With respect to Cost of Debt, the Authority sought the sanction letter of the loan to verify the interest rate charged. CIAL placed on record the letter dated 16th January 2017 from Federal Bank certifying the interest rate of 9.63% applied on the loan amount.

12.2.3 The Authority noted that Shareholder funds considered for computing FRoR is based on the entire Shareholder fund base of the company at each years' closing balances. The Authority noted that CIAL has invested funds as Long Term Investments in other businesses not relating to Airport Operations and has received Grant for certain capital assets from Government.

12.2.4 The Authority also notes that CIAL has received Interest free deposit of Rs. 150 crores from Fuel Farm Operator in 2015-16. The Authority notes that the matter of considering Security Deposit for computing FRoR is sub-judice. Pending decision of AERAAT, the Authority proposes to not give any return on security deposit in line with the earlier stand of AERA.

12.2.5 The Authority proposes to recompute FRoR considering the below factors:

12.2.5.1 Exclude Investments in other businesses for computing Equity for FRoR.

12.2.5.2 Excluded Grants received from Government.

12.2.5.3 Compute FRoR considering Shareholder funds, Debts and Interest Free Security Deposit.

12.2.5.4 Compute Average Debt and Equity balance for the year, instead of closing balances considered

12.2.6 Based on changes to other factors of the Regulatory Building Block (Changes to Capex etc.) and the changes to FRoR detailed above, the Authority has recomputed the Fair Rate of return as follows.

Table 60: Recomputed FRoR as per Authority

FRoR	2017	2018	2019	2020	2021
Total Equity (E)	899	941	988	1,055	1,147
Total Debt (D)	369	639	775	933	1,086
Security Deposit	150	150	150	150	150

Weighted average Gearing (D/D+E)	39.68%
Weighted average cost of debt	9.63%

Share of Deposit	7.83%
Cost of Deposit	0.00%
Share of Equity	52.50%
Cost of Equity	14.00%
FRoR	11.17%

12.2.7 The Authority notes that the loan taken by CIAL carries a floating rate of Interest. The Authority is also aware that the actual Equity and Debt balances may change from the estimated based on various factors including Capital Expenditure, Revenues collected and other components of the ARR. The Authority accordingly proposes to true up the cost of debt and the FRoR based on change in gearing, during the current control period.

Proposal No 10. Regarding Cost of Equity, Cost of Debt and Fair Rate of Return

10.a. Based on the material before it and its analysis, the Authority proposes

i. To consider Cost of Equity at 14% for computation of Fair Rate of Return

ii. To consider Cost of Debt at 9.63% as per the submission of CIAL.

iii. To consider the FRoR as detailed in Para 12.2.6 above for the purpose of computing ARR for the second control period

iv. To true up the Cost of Debt based on any changes to Interest rate and to true up the Fair Rate of Return based on changes to the gearing between Equity and Debt considering actual position for the control period, at the time of determination of tariff for the next control period.

13. Taxation matters

13.1 CIAL's Submission on Taxation

13.1.1 The corporate tax for CIAL is the composite tax for all the services provided by CIAL. The corporate tax rate considered is 34.60%.

13.1.2 The tax for aeronautical services has been computed by taking into account aeronautical revenues, aeronautical expenses, depreciation on aeronautical assets and interest expenses towards aeronautical capital expenditure.

13.1.3 CIAL has stated that CIAL was under tax holiday for its infrastructure investment till FY 2013-14, and tax was paid as per MAT rates. From FY 2015 onwards, CIAL has started paying tax as per corporate tax rates after setting off required MAT credit.

The calculation of tax for the Second Control Period provided by CIAL in its submission is based on the Corporate Income Tax of 34.6% and the tax estimate submitted by CIAL under Hybrid Till is as given below:

Table 61: Projection of Tax Cost under Shared Till (Rs. Crores)

Particulars	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Income Tax	64.12	40.06	50.38	60.90	72.98

13.1.4 CIAL has also given details of its contingent liability of Rs. 323.92 Crores as on 31st March 2016. Out of this amount, the contingencies on account of income tax and service tax are listed below:

Table 62: Contingent Liabilities relating to Taxation (Rs. Crores)

Name of the Statute	Nature of Dues	Amount	Amount paid under Protest	Period to which it relates	Forum where the dispute is pending
Finance Act 1994 - Service Tax	Service Tax, Interest and Penalty	14.06	0.35	2002-03 to 2008-09	Customs, Excise & Service Tax Appellate Tribunal
Finance Act 1994 - Service Tax	Service Tax, Interest and Penalty	2.27	0.03	2002-03 to 2012-13	Commissioner of Central Excise & Customs (Appeals)
Finance Act 1994 - Service Tax	Service Tax, Interest and Penalty	12.97	0.65	2004-05 to 2006-07	Supreme Court

Name of the Statute	Nature of Dues	Amount	Amount paid under Protest	Period to which it relates	Forum where the dispute is pending
Income Tax, 1961	Income Tax and Interest	0.06	1.51	2004-05 to 2008-09	Commissioner of Income Tax (Appeals)
Income Tax, 1961	Income Tax and Interest	17.81		2004-05 (AY 2005-06)	Commissioner of Income Tax (Appeals)
Income Tax, 1961	Income Tax and Interest	17.24		2005-06 (AY 2006-07)	Commissioner of Income Tax (Appeals)
Income Tax, 1961	Income Tax and Interest	20.34	1.00	2006-07 (AY 2007-08)	Commissioner of Income Tax (Appeals)
Income Tax, 1961	Income Tax and Interest	29.59	2.50	2007-08 (AY 2008-09)	Income Tax Appellate Tribunal, Cochin Bench
Income Tax, 1961	Income Tax and Interest	10.43		2008-09 (AY 2009-10)	Commissioner of Income Tax (Appeals)
Income Tax, 1961	Income Tax and Interest	16.59		2009-10 (AY 2010-11)	Commissioner of Income Tax (Appeals)
Income Tax, 1961	Income Tax and Interest	5.19		2010-11 (AY 2011-12)	Commissioner of Income Tax (Appeals)
Income Tax, 1961	Income Tax and Interest	30.59		2011-12 (AY 2012-13)	Commissioner of Income Tax (Appeals)
Total		177.14	6.04		

13.1.5 CIAL has submitted that although it has not made any provision for the above contingencies in the ARR computation, the same may be allowed as part of revenue requirement for this control period by AERA, if and when CIAL is required to make such payments.

13.2 Authority's Examination of Taxation

13.2.1 The Authority perused the Annual Report of CIAL in respect of taxation. Note 2.41 in the Annual Report for FY 2016 stated as follows:

"Considering the Airport Operation as an infrastructural project, the Company was claiming deduction u/s 80IA of the Income Tax Act, 1961 for the income from airport operations for a period of 10 years ended 31st March 2014. Accordingly, during these years, the payment of tax was based on Minimum Alternate Tax (MAT), which is eligible for set off against future tax liability. However, the Company had not recognized MAT credit as an asset in its books of accounts, as a matter of prudence. During the current year, MAT credit to the extent of

Rs. 31,26,62,045 (Rs. 21,13,38,900) is set off against the provision for Income Tax. Claim of deduction u/s 80IA have been disputed by the Income Tax department and these disputes are at various levels of appeals for different years. However, the company based on legal opinion, is confident of getting a favorable decision and hence set off of MAT credit is done during this year."

13.2.2 From the above mentioned notes to accounts, the Authority noted that MAT entitlement was not recognized in the books of accounts. MAT credit, when adjusted would be shown in the P&L to the extent of adjustment and hence the actual tax outflow for CIAL in the second control period will be the tax computed, reduced by the MAT credit available for set off.

13.2.3 The Authority called for details regarding the MAT credit availed, adjusted and balance over the past years. CIAL submitted the following data on MAT Credit outstanding carried forward to Assessment Year 2017-18:

Table 63: Details of year wise MAT credit closing balance (Rs. Crores)

Particulars	**Amount**
2012-13	1.57
2013-14	25.15
2014-15	30.3
Total	**57.02**

13.2.4 The Authority had noted that for the second control period, the company has accounted liability under normal corporate tax. CIAL has entitlement to adjust the MAT paid against this, which has not been considered in the workings.

13.2.5 The Authority proposes to adjust the MAT Credit entitlement in the projection of Income tax payable for the second control period and consider only the difference as tax outflow projections. In the absence of details, the Authority considers 80% of the MAT credit outstanding as relating to the Aeronautical services.

13.2.6 Considering the above, and the other changes in the other elements of Regulatory Building Blocks, the recomputed Tax cost is as follows:

Table 64: Tax cost recomputed for computing ARR under Hybrid Till (Rs. Crores)

Particulars	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Income Tax	16.08	2.60	4.88	8.04	13.00

13.2.7 The Authority is aware that any change in any building block or change in tax rates would result in a different tax outflow than that projected herein. The Authority proposes to true up the tax cost based on actuals, for the control period, at the time of determination of tariff for the next control period.

13.2.8 The Authority has reviewed the details of contingent liabilities listed by CIAL in its submissions. The Authority notes that these are only contingent in nature which according to CIAL's own submission, may not materialize. These belong to the period before the second control period and also no provisions have been made in accounts; hence the Authority does not propose to consider any of these in the computation of tariff for the second control period.

Proposal No 11. Regarding Taxation

11.a. Based on the material before it and its analysis, the Authority proposes

i. To consider tax outflow estimate after adjusting MAT credit as detailed in Para 13.2.6 above for computation of Aggregate Revenue Requirement

ii. To true up the projections based on actuals, at the end of the control period, in computation of tariff for the next control period

iii. To not consider any costs towards Contingent Liabilities in the computation of Aggregate Revenue Requirement.

14. WPI Computations

14.1 CIALs submission on Wholesale Price Index

14.1.1 CIAL has stated that WPI, for the purposes of escalation, has been assumed to be 3.6% per annum as per as RBI's ***"Results of the Survey of Professional Forecasters on Macroeconomic Indicators"*** – 36th Round (Q2:2015-16).

14.1.2 CIAL has used this estimate in computing the Yield and Projected Aeronautical Revenues in the second control period.

14.2 Authority's examination of CIALs submission on WPI

14.2.1 The Authority has reviewed CIAL's submission on WPI and proposes to consider the same in computation of Yield and Projected Aeronautical Revenues.

Proposal No 12. Regarding WPI

12.a. Based on the material before it and its analysis, the Authority proposes

i. To consider WPI at 3.6% as submitted by CIAL

15. Quality of Service

15.1 CIAL's Quality of Service

15.1.1 The Authority notes that in the recent past, CIAL has maintained consistent ASQ ratings above 4 in the past eight quarters and has recently bagged Service Quality awards – Third Place, from Airport Council International, in the 5 to 15 Million Passenger category. The Authority will review the Quality of service parameters based on the ASQ ratings obtained by CIAL and any study that the Authority may undertake.

16. Aggregate Revenue Requirement

16.1 CIAL's submission on Aggregate Revenue Requirement (ARR)

16.1.1 CIAL has submitted its total Aggregate Revenue Requirement for the second control period, under Shared Revenue Till as follows, based on the submissions on various building blocks discussed in earlier sections.

Table 65: Aggregate Revenue Requirement as per CIAL under Hybrid Till (Rs. Crores)

Particulars	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Average RAB	957.88	1542.98	1639.14	1820.27	2110.77	8071.05
FRoR	14.10%	14.10%	14.10%	14.10%	14.10%	
Return on RAB	135.06	217.56	231.12	256.66	297.62	1138.03
Depreciation	65.89	105.36	117.75	132.46	150.90	572.36
Operating Expenditure	172.19	237.92	265.89	297.67	331.58	1305.25
Tax	64.12	40.06	50.38	60.90	72.98	288.43
Less: Non Aero Revenues	-47.31	-58.77	-70.52	-83.66	-94.28	-354.54
Aggregate Revenue Requirement	**389.94**	**542.13**	**594.63**	**664.03**	**758.80**	**2949.53**
Present value of ARR						**2216.54**

16.1.2 Accordingly the Yield computed per passenger (YPP) is 541.8 at the beginning of the Control period.

16.2 Authority's evaluation on Aggregate Revenue Requirement (ARR)

16.2.1 Authority's analysis on individual building blocks of ARR are detailed in the individual sections of this Consultation Paper.

16.2.2 Based on the individual analysis detailed above, the recomputed ARR for the second control period under Hybrid Till is as given below.

Table 66: Recomputed Aggregate Revenue Requirement under Hybrid Till (Rs. Crores)

Particulars	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Average RAB	815.80	1382.61	1486.50	1642.70	1856.23	7183.85
FRoR	11.17%	11.17%	11.17%	11.17%	11.17%	
Return on RAB	91.13	154.44	166.05	183.49	207.35	802.46
Depreciation	55.41	83.27	91.50	99.54	107.88	437.60
Operating Expenditure	148.32	197.60	218.99	242.24	265.89	1073.04
Tax	16.08	2.60	4.88	8.04	13.00	44.60
Less: Non Aero Revenues	-46.65	-57.22	-69.12	-82.52	-93.53	-349.04

Particulars	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Aggregate Revenue Requirement	**264.28**	**380.69**	**412.30**	**450.79**	**500.59**	**2008.65**
Present value of ARR						**1596.17**

16.2.3 The recomputed YPP at the beginning of the control period is 370.12

16.2.4 Analysis of key differences from the submission made by CIAL to the computation done by the Authority is as follows:

Table 67: Summary of changes and impact on ARR (Rs. Crores)

Particulars		**Amount**
Total ARR at the beginning of the control period for 5 years as per CIAL		**2,949.53**
Impact of Changes		
Building Block	Description of Change	
Regulatory Asset Base	Removal of Maintenance Capital Expenditure	(49.08)
	Remove certain items of Capex - Dummy Aircraft, Aircraft recovery equipment, adjusting Aerobridge cost	(16.38)
	Changes to Financing allowance	(14.29)
	Changes to Asset allocation ratios	(71.68)
	Remove Land from RAB	(139.24)
Operating Expenditure	Not consider CSR Expenditure	(20.74)
	Not consider Duty Free Marketing Expenditure, change to repair cost, Cute fee etc.	(5.75)
	Moderating Personnel cost and change in Personnel cost allocation ratios	(142.82)
	Change Power purchase rate from CIAL Infra	(17.78)
	Net off Power recoveries from Utilities cost	(11.02)
Non Aero Revenues	Increase in Duty free revenue share %	(29.73)
	Considering Fuel farm and Airline rentals as Aero	9.97
Taxation	Adjusting MAT credits	(89.67)
FRoR	Remove Long Term Investments from Equity for computing Gearing	(34.26)
	Consider Gearing based on average balances instead of closing balances	11.92
	Change return on equity from 16% to 14%	(142.71)
	Removing Grant from being considered as part of Shareholder funds	(0.79)
Depreciation	Change in Depreciation rates for Runway, BHS and CFT	(80.65)
FRoR	Considering Fuel Farm Deposit for FRoR computation	(96.19)
Sum of changes		**(940.89)**
Revised Aggregate Revenue Requirement as computed by the Authority		**2,008.65**

16.2.5 The Authority noted that CIAL has not submitted the Annual Tariff Plan for the years in the second control period, except for the draft numbers for the first year of the Control period 2016-17, under Single Till. The Authority notes that CIAL has sought revision in all charges including Landing, Parking fee etc.

16.2.6 The Authority notes that the first year in the first control period is over and the tariff that would be determined would be applicable for the balance 4 years in the current control period.

16.2.7 CIAL has stated as follows:

"We have filed the ATP for the first year of the second control period along with our MYTP submission for the second control period. Further, ATPs for the subsequent years in the second control period will be submitted year wise later complying the AERA directions contained in the guidelines issued for Determination of Tariff for Airport Operators dated 28.02.2011. Moreover, it would not be appropriate to finalise the ATPs for remaining four years of the control period even without determining the ARR and yield per pax applicable for the second control period by AERA."

16.2.8 The Authority has noted CIAL's submissions. In order to have a constructive stakeholder consultation before passing of the Order and for ease, the Authority proposes to consider and approve tariff for the balance years in the control period along with the Multi Year Tariff Order for Aggregate Revenue Requirement, together and not have an individual assessment year wise.

16.2.9 The Authority also notes that, it would be necessary to have the individual year wise tariff card laying down the different Aeronautical charges and the workings for the Aeronautical Revenues, in order to have a constructive stakeholder discussion and hence CIAL is expected to submit the detailed Annual Tariff proposals in line with the ARR and Yield arrived at by the Authority within 7 days of issue of the Consultation Paper.

Proposal No 13. Regarding Aggregate Revenue Requirement

13.a. Based on the material before it and its analysis, the Authority proposes

i. To consider the Aggregate Revenue Requirement as detailed in Para 16.2.2 above as the eligible ARR for the second control period for CIAL

ii. To ask CIAL to submit the Annual Tariff Proposals within 7 days from issue of this Consultation Paper which will be reviewed and put up for stakeholder consultations.

17. Summary of Proposals put forth for Stakeholder consultations

Proposal No 1. Regarding Regulatory Till and principles of determination of Tariff.. 15

1.a. Based on the material before it and its analysis, the Authority proposes: 15

i. To compute Aggregate Revenue Requirement under 30% Hybrid Till for the second control period. 15

ii. To consider Cargo services provided by CIAL as material and non-competitive and determine tariff under "price cap" regulation together with determination of tariff for Airport Operations... 15

iii. To consider revenues from Cargo, Ground Handling and Fuel Farm services and Rentals from leasing of space to agencies providing Aeronautical services as Aeronautical revenues.. 16

Proposal No 2. Regarding truing up of First control period Aggregate Revenue Requirement (ARR) 20

2.a. Based on the material before it and its analysis, the Authority proposes.. 20

i. To not recalculate the Aggregate Revenue Requirement (ARR) for the first control period. 20

Proposal No 3. Regarding Traffic projections 26

3.a. Based on the material before it and its analysis, the Authority proposes.. 26

i. To consider traffic projections as per 5 years' CAGR as detailed in Para 5.3.8 above for determination of tariff for the second control period. 26

ii. To true up the traffic of the second control period based on actuals, at the time of determination of tariff for the next control period. 26

Proposal No 4. Regarding allocation of assets between Aeronautical and Non-Aeronautical services............ 30

4.a. Based on the material before it and its analysis, the Authority proposes.. 30

i. To consider allocation of assets and between Aeronautical and Non-Aeronautical services as detailed in Para 6.2.10 above for determination of tariff for the second control period. 30

ii. To carry out a technical study on the area used between Aeronautical and Non-Aeronautical in the existing and new terminal once the operations are commissioned and stabilised... 30

iii. To true up the details considered in Para 6.2.10 above based on the actuals and consider the same in the next control period. 30

Proposal No 5. Regarding Capital Expenditure and Depreciation 35

5.a. Based on the material before it and its analysis, the Authority proposes 35
i. To not consider Land as part of RAB for computing return, as detailed in Para 7.2.2 above, pending study to be conducted. 35
ii. To consider Capital Expenditure detailed in Para 7.2.12 above for computing the Average RAB and return for the second control period. 36
iii. To true up the actual Capital Expenditure on actuals at the time of determination of tariff for the next control period. 36
Proposal No 6. Depreciation for the second control period 40
6.a. Based on the material before it and its analysis, the Authority proposes 40
i. To consider depreciation as per Para 8.2.5 above to compute Average RAB and depreciation to be considered in ARR. 40
ii. To true up the Depreciation based on the actual Capital Expenditure and the change in useful lives/ rates as per the results of the Depreciation study. 40
Proposal No 7. Regulatory Asset Base for the second control period 41
7.a. Based on the material before it and its analysis, the Authority proposes 41
i. To consider Regulatory Asset Base as given in Para 9.2.2 above for the purpose of computation of Aggregate Revenue Requirement. 42
ii. To true up the Regulatory Asset Base at the end of the Control period based on actuals, at the time of determination of tariff for the next control period. 42
Proposal No 8. Regarding Operating Expenditure 56
8.a. Based on the material before it and its analysis, the Authority proposes 56
i. To consider the allocation of Operating Expenditure relating to Non-Aeronautical services as detailed in Para 10.1.10 above. 56
ii. To consider Operating Expenditure under Hybrid Till as detailed in Para 10.3.17 above for determination of tariff for the second control period. 56
iii. To true up the Operating Expenditure for the current control period, at the time of determination of tariff for the next control period. 56
Proposal No 9. Regarding Non-Aeronautical Revenues 68

9.a. Based on the material before it and its analysis, the Authority proposes 68
i. To consider Non Aeronautical Revenues as detailed in Para 11.2.23 above for determination of tariff for the second control period. 68
ii. To true up the actual Non-Aeronautical Revenues on actuals, at the time of determination of tariff for the next control period. 68

Proposal No 10. Regarding Cost of Equity, Cost of Debt and Fair Rate of Return 73

10.a. Based on the material before it and its analysis, the Authority proposes 73
i. To consider Cost of Equity at 14% for computation of Fair Rate of Return 73
ii. To consider Cost of Debt at 9.63% as per the submission of CIAL. 73
iii. To consider the FRoR as detailed in Para 12.2.6 above for the purpose of computing ARR for the second control period 73
iv. To true up the Cost of Debt based on any changes to Interest rate and to true up the Fair Rate of Return based on changes to the gearing between Equity and Debt considering actual position for the control period, at the time of determination of tariff for the next control period. 73

Proposal No 11. Regarding Taxation 77

11.a. Based on the material before it and its analysis, the Authority proposes 77
i. To consider tax outflow estimate after adjusting MAT credit as detailed in Para 13.2.6 above for computation of Aggregate Revenue Requirement 77
ii. To true up the projections based on actuals, at the end of the control period, in computation of tariff for the next control period 77
iii. To not consider any costs towards Contingent Liabilities in the computation of Aggregate Revenue Requirement. 77

Proposal No 12. Regarding WPI 78

12.a. Based on the material before it and its analysis, the Authority proposes 78
i. To consider WPI at 3.6% as submitted by CIAL 78

Proposal No 13. Regarding Aggregate Revenue Requirement 82

13.a. Based on the material before it and its analysis, the Authority proposes 82

i. To consider the Aggregate Revenue Requirement as detailed in Para 16.2.2 above as the eligible ARR for the second control period for CIAL 82

ii. To ask CIAL to submit the Annual Tariff Proposals within 7 days from issue of this Consultation Paper which will be reviewed and put up for stakeholder consultations. 82

18. Stakeholder Consultation Timeline

18.1.1 In accordance with the provisions of Section 13(4) of the AERA Act 2008, the proposal contained in the Summary of Proposals (Para 17 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 – 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 this 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 terms of the provisions of the Act.

18.1.2 The Authority welcomes written evidence-based feedback, comments and suggestions from stakeholders on the proposal made in Para 17 above **latest by 12.06.2017** at the following address:

Secretary
Airports Economic Regulatory Authority of India
AERA Building, Administrative Complex, Safdarjung Airport,
New Delhi- 110003
Email: puja.jindal@nic.in
Tel: 011-24695043; Fax: 011-24695039

Chairperson

19. List of Annexures

Annexure Number	Particulars
Annexure – 1	MYTP submission from CIAL
Annexure – 2	Details of all projects over Rs. 5 Crores submitted by CIAL

20. List of Tables

Table 1: Equity Share Holding Pattern 7
Table 2: Historical Trend in Passenger Traffic (Pax in Mn) 21
Table 3: Projections of Passenger Traffic based on Revised CAGR (Pax in Mn) 21
Table 4: 10 year CAGR of Passengers (Pax in Mn.) 22
Table 5: Actual ATMs during the past years (Nos.) 22
Table 6: Projected Pax per ATM and ATM traffic (Nos.) 23
Table 7: Past Cargo Traffic (MT) 24
Table 8: Projected Cargo Traffic (MT) 24
Table 9: 10 year CAGR for Cargo (MT) 25
Table 10: Total Traffic Projection for Second Control Period 25
Table 11: Basis of Allocation of Existing assets, as per CIAL 27
Table 12: Basis of allocation of new assets as per CIAL 27
Table 13: Asset allocation ratio as per CIAL and as per Authority 29
Table 14: Regulatory Asset Base at the beginning of the second control period of CIAL (Rs. Crores) 31
Table 15: Breakup of Opening Net Block of assets (Rs. Crores) 31
Table 16: Assets proposed to be capitalised, as submitted by CIAL 31
Table 17: Recomputed addition to RAB as per Authority (Rs. Crores) 35
Table 18: Useful lives and depreciation rates adopted by CIAL 37
Table 19: Depreciation considered by CIAL in its submissions (Rs. Crores) 37
Table 20: Different useful lives considered by the Authority 38
Table 21: Depreciation recomputed by the Authority (Rs. Crores) 39
Table 22: Average RAB computation as per CIAL, under Hybrid Till (Rs. Crores) 41
Table 23: Recomputed Average RAB as per Authority under Hybrid Till (Rs. Crores) 41
Table 24: Basis of allocation of O&M expenses as per CIAL 43
Table 25: Classification of employees between Aeronautical and Non Aeronautical services 43
Table 26: Calculation of % of employee cost to be allocated to Aero 44
Table 27: Proportion of Aeronautical expenses as a % of Total expenses, category wise 45
Table 28: Recomputed allocation ratio of Aeronautical Expenses to total expenses, category wise 46
Table 29: Operating and Maintenance expenses over the Previous Years – Total cost (Rs. Crores) 47
Table 30: Projection of Operating and Maintenance Expenses, under Hybrid Till as per CIAL (Rs. Crores) 47

Table 31: Details of Employee cost computed by CIAL (Rs. Crores) 48
Table 32: Details of Repairs & Maintenance cost computed by CIAL (Rs. Crores) 49
Table 33: Details of utility cost computed by CIAL (Rs. Crores) 50
Table 34: Details of Other Operational Expenditure computed by CIAL (Rs. Crores) 50
Table 35: Extracts of the Purchase Orders entered with M/s SITA 51
Table 36: Projection of CUTE Opex Fees (Rs. Crores) 52
Table 37: Basis of Projection of Admin and General Costs 52
Table 38: Projection of Admin and General Costs (Rs. Crores) 53
Table 39: Operating Expenditure recomputed by Authority under Hybrid Till (Rs. Crores) 55
Table 40: Composition of Non Aero Revenues – Historic (Rs. Crores) 57
Table 41: Composition of Projected Non Aero Revenues as per CIAL for the Second control period (Rs. Crores) 57
Table 42: Projection of Duty Free Revenues for Second Control Period 58
Table 43: Projection of License Fee for Car Park (Rs. Crores) 59
Table 44: Projection of License Fee for Catering Services (Rs. Crores) 59
Table 45: Projections for License Fees for Space/Royalty (Rs. Crores) 60
Table 46: Projection of Fuel Throughput related rental income (Rs. Crores) 60
Table 47: Projections for Interest Income (Rs. Crores) 61
Table 48: Projection of Other Income (Rs. Crores) 61
Table 49: Projections provided by CIAL for Utility Service Charges income (Rs. Crores) 61
Table 50: Details of Miscellaneous Income - Non-Aeronautical (Rs. Crores) 62
Table 51: Summary of Non Aero Revenues proposed by CIAL (Rs. Crores) 62
Table 52: Revised Duty Free Revenues to be considered (Rs. Crores) 63
Table 53: Details of Other Income (Rs. Crores) 66
Table 54: Summary of Non Aeronautical revenue recomputed by the Authority (Rs. Crores) 67
Table 55: Overview of Shareholders' Funds (Rs. Crores) 69
Table 56: Projection of Shareholders' Funds (Rs. Crores) 69
Table 57: Projection for Additional Debt as per CIAL (Rs. Crores) 71
Table 58: Actual Composition of Funds till March 2016 (Rs. Crores) 71
Table 59: Projection of Composition of Funds and FRoR for Second Control period by CIAL 71
Table 60: Recomputed FRoR as per Authority 72
Table 61: Projection of Tax Cost under Shared Till (Rs. Crores) 74
Table 62: Contingent Liabilities relating to Taxation (Rs. Crores) 74

Table 63: Details of year wise MAT credit closing balance (Rs. Crores) 76
Table 64: Tax cost recomputed for computing ARR under Hybrid Till (Rs. Crores) 76
Table 65: Aggregate Revenue Requirement as per CIAL under Hybrid Till (Rs. Crores) 80
Table 66: Recomputed Aggregate Revenue Requirement under Hybrid Till (Rs. Crores) 80
Table 67: Summary of changes and impact on ARR (Rs. Crores) 81