

Order No. 03/2018-19



**Airports Economic Regulatory Authority of India**

सत्यमेव जयते

**In the matter of determination of aeronautical tariffs  
in respect of Chennai International  
Airport, Chennai for the second Control Period  
(01.04.2016 – 31.03.2021).**

भा.वि.आ.वि.प्रा.

16<sup>th</sup> April, 2018

**AERA Building  
Administrative Complex  
Safdarjung Airport  
New Delhi – 110 003**



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## 1. Introduction

1.1. Chennai is the capital city of the state of Tamil Nadu which is one among the five states of South India. It is located on the Coromandel Coast off the Bay of Bengal. More than one third of India's automobile industry is based in Chennai. Other than automobile industry, Chennai also has a significant presence of IT industry, hardware manufacturing and healthcare facilities.

1.2. Chennai International Airport (CIA), managed by Airports Authority of India (AAI), is the fourth busiest airport in the country as per FY 2016-17 traffic.

1.3. The traffic handled by CIA during the 1<sup>st</sup> control period is given in table below:

Table 1 - Passenger and ATM traffic during the 1<sup>st</sup> control period at CIA

Year	Dom. Pax (mn)	Int. Pax (mn)	Total Pax (mn)	Dom. ATMs	Int. ATMs	Total ATMs
2012	8.6	4.3	12.9	86,592	33,535	120,127
2013	8.3	4.5	12.8	83,316	34,102	117,418
2014	8.4	4.5	12.9	86,549	35,268	121,817
2015	9.6	4.7	14.3	87,761	34,616	122,377
2016	10.3	4.9	15.2	89,767	35,355	125,122

1.4. CIA, with a traffic of more than 1.5 mppa, is a major airport as defined in Section 2 (i) of AERA Act. Accordingly, tariff determination of aeronautical services at the airport is undertaken by AERA.

1.5. Technical and Terminal building details of CIA are provided in the table below:

Table 2 – Technical and Terminal building details of CIA

Technical Details of CIA	
Particulars	Details
Total airport area	1301 acres
Runway orientation and length	Primary: 07/25 – 3658 x 45 M; Secondary: 2890 x 45M
No. of Taxi Tracks	24
No. of Apron Bays	86 bays
Aerodrome Category	Code 4E
Navigational Aids	DVOR/ DME, ASR, MSSR, ILS, ASMGCS
Operational hours	24 bays



Terminal building Details				
Particulars	T-1	T-2*	T-3	T-4
Terminal Building Area	73,714 sq. m.	18,858 sq. m.	60,848 sq. m.	64,204 sq. m.
Immigration Counters	-	-	18	22
Customs Counters	-	-	9	4
Security Counters	18	-	-	12
Departure Conveyor	4	-	-	4
Arrival Conveyor	4	-	6	3
Peak hour passenger capacity	3300 pax	2060 pax	2150 pax	2300 pax
No. of Check-in Counters (CUTE)	52	-	-	60
Total Area of Car Parking	49,934 sq. m.			

\* – Housing the Chennai Airport project offices, Rest rooms, staff canteen, Bed and bath facilities, Flemingo warehouse & TFS kitchen

1.6. AAI submitted its Multi Year Tariff Proposal (MYTP) for revising aeronautical charges for 2nd control period on 18.04.2017. The Authority's consideration of this proposal and its tentative views in respect of relevant issues were placed for stakeholder consultations vide Consultation Paper Number 45/2017-18 on 19.02.2018. The last date for receipt of comments was 16.03.2018.

1.7. A meeting with stakeholders for inviting responses on proposed decisions of the Authority was held on 09.03.2018.

1.8. This order of the Authority takes into account the proposals of AAI, views expressed by stakeholders in the meeting, written submissions received from stakeholders and examination by the Authority with reference to its guidelines for airport operators.

1.9. The Authority, vide its Order No. 38/2012-13 dated 01.02.2013 had determined the aeronautical tariffs to be levied at CIA for the first control period with effect from 01.03.2013. Major decisions of the Authority in its Order No. 38/2012-13 for the 1<sup>st</sup> control period are reproduced below:

1.9.1. To consider the project cost of ₹ 2,862.7 crores for the purpose of tariff determination

1.9.2. To consider Initial RAB at ₹ 343.5 crores as furnished by AAI

1.9.3. Depending on the capex incurred and timing thereof (i.e. the date of



capitalisation of the underlying assets in a given year) the Authority will make appropriate adjustments to the RAB at the beginning of the next Control Period, taking into account, the accounting policies of AAI regarding depreciation as well as actual expenditure incurred and capitalized

1.9.4. To true up the traffic volume based on actual growth during the current control period while determining aeronautical tariffs for the next control period commencing w.e.f. 01.04.2016

1.9.5. May consider the non-aeronautical revenues during the current control Period as a floor for the next Control Period

1.9.6. To true up the non-aeronautical revenue for the current control period based on the actual non-aeronautical revenue at CIA while determining the tariffs for the next Control Period

1.9.7. To consider WACC at 14% for CIA for the first Control Period

1.9.8. To determine the present value of the Yield per passenger at ₹ 296.29 (as at table 16) for the first Control Period based on its examination of the MYTP submitted by AAI

1.9.9. To determine the tariffs for the Tariff Years 2012-13 to 2015-16 for aeronautical services in respect of Chennai Airport. The tariffs for FY2012-13 would be effective from 01.03.2013. The tariffs for the Tariff Years 2013-14, 2014-15 and 2015-16 will be effective from 1st April of the respective Tariff Years

1.9.10. To merge the passenger facility component (presently ₹ 77 per departing passenger) of the Passenger Service Fee, in the UDF. Thus, the PSF at CIA, Chennai will be limited only to the Security Component w.e.f. 01.03.2013 (presently ₹ 130 per departing passenger)



## 2. Summary of stakeholders' comments on Consultation Paper No. 45/ 2017-18

2.1. In response to Consultation Paper No. 45/2017-18, the Authority received several responses from stakeholders. The list of stakeholders, who have commented on the Consultation Paper, is presented below.

Table 3 – Summary of stakeholders' comments

Sr. No.	Stakeholder	Issues Commented upon
1.	International Air Transport Association (IATA)	<ul style="list-style-type: none"><li>• Methodology of Tariff Determination</li><li>• True-up for First control period</li><li>• Traffic forecast</li><li>• Allocation of Assets (Aeronautical and Non-Aeronautical)</li><li>• Capital expenditure for 2<sup>nd</sup> control period</li><li>• Fair Rate of Return</li><li>• Revenues from services other than aeronautical services</li><li>• Operation and Maintenance Expenditure</li><li>• Taxation</li><li>• Annual Tariff Proposal</li></ul>
2.	Federation of Indian Airlines (FIA)	<ul style="list-style-type: none"><li>• Methodology of Tariff Determination</li><li>• True-up for First control period</li><li>• Capital expenditure for 2<sup>nd</sup> control period</li><li>• Fair Rate of Return (FRoR)</li><li>• Annual Tariff Proposal</li></ul>
3.	Indian Oil Corporation Limited (IOCL)	<ul style="list-style-type: none"><li>• Annual Tariff Proposal</li></ul>
4.	Hindustan Petroleum Corporation Limited (HPCL)	<ul style="list-style-type: none"><li>• Annual Tariff Proposal</li></ul>
5.	AOC	<ul style="list-style-type: none"><li>• Capital Expenditure for 2<sup>nd</sup> control period</li></ul>

2.2. The Authority has carefully considered comments made by stakeholders and has obtained response from AAI on these comments. The position of the Authority in its Consultation Paper No. 45/2017-18, issue-wise comments of the stakeholders on the Consultation Paper, response from AAI thereon, Authority's examination, and its decision are given in the relevant sections of this order.



### 3. Methodology for Tariff determination

- 3.1. The Authority, vide its Order No. 13/2010-11 dated 12.01.2011 ("Airport Order") and Direction No. 5/2010/11 dated 28.02.2011 ("Airport Guidelines"), had issued guidelines to determine tariffs at major airports based on Single Till mechanism. Subsequently, the Authority has amended guidelines vide its Order No. 14, 2016-17 dated 12.01.2017 to determine future tariffs using Hybrid Till.
- 3.2. The tariff determination process consists of true-up for 1<sup>st</sup> control period and determination of building blocks for 2<sup>nd</sup> control period. The Authority had proposed to undertake true-up of 1<sup>st</sup> control period based on actual financials and traffic data under Single Till (as was applicable during 1<sup>st</sup> control period) and determination of building blocks for 2<sup>nd</sup> control period under Hybrid Till.
- 3.3. The Aggregate Revenue Requirement (ARR) under regulatory framework of Authority is calculated as under

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

$$ARR_t = (FRoR \times RAB_t) + D_t + O_t + T_t - \alpha \times NAR_t$$

Where

- 3.3.1.  $t$  is the Tariff Year in the control period;
- 3.3.2.  $ARR_t$  is the Aggregate Revenue Requirement for year  $t$ ;
- 3.3.3.  $FRoR$  is the Fair Rate of Return for the control period;
- 3.3.4.  $RAB_t$  is the Aeronautical Regulatory Asset Base for year  $t$ ;
- 3.3.5.  $D_t$  is the Depreciation corresponding to the Aeronautical  $RAB$  for year  $t$ ;
- 3.3.6.  $O_t$  is the Aeronautical Operation and Maintenance Expenditure for year  $t$ , which include all expenditures incurred by the Airport Operator(s) towards aeronautical activities including expenditure incurred on statutory operating costs and other mandatory operating costs;
- 3.3.7.  $T_t$  is the Tax in year  $t$ , which includes payments by Airport Operator in respect of corporate tax on income from assets/ amenities/facilities/services taken into consideration for determination of  $ARR$  for year  $t$ ;
- 3.3.8.  $\alpha$  is 30% cross subsidy factor for revenue from services other than



aeronautical services under Hybrid Till for 2<sup>nd</sup> control period.  $\alpha$  is 100% cross subsidy factor under Single Till for 1<sup>st</sup> control period; and

3.3.9.  $NAR_t$  is the revenue from services other than aeronautical services (Non-Aeronautical Revenues or NAR) for year t.

3.4. Based on ARR, Yield per Passenger is calculated as per formula given below:

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

Where,

3.4.1. Present value (PV) of  $ARR_t$  for a tariff year t is calculated at the beginning of the control period and the discounting rate for calculating PV is equal to the Fair Rate of Return determined by the Authority.

3.4.2.  $VE_t$  is the Traffic volume in a tariff year t as estimated by the Authority

3.4.3.  $ARR_t$  is the Aggregate Revenue Requirement for tariff year t.

3.5. While determining building blocks and ARR for CIA, Authority had proposed to-

3.5.1. Allocate CHQ/ RHQ overhead expenses on revenue basis as per the approach followed by the Authority while determining tariffs for Guwahati and Lucknow airports during 1<sup>st</sup> control period

3.5.2. Adopt depreciation rates consistent with Companies Act and for assets not defined in the Companies Act at 3.33% from FY 2011-12 onwards

3.5.3. Adopt depreciation rates consistent with Authority's order "In the matter of Determination of Useful life of Airport Assets" (Order No. 35/2017-18) from FY 2018-19 onwards.

3.6. The Authority caps airport tariffs at a level where revenue generated through approved tariffs is equal to the permissible ARR for the Airport Operator. The Authority's approach on the above is detailed in subsequent sections.

3.7. The true-up for 1<sup>st</sup> control period and determination of building blocks for 2<sup>nd</sup> control period are detailed in subsequent sections.

3.8. It is to be noted that some of the numbers in the order are rounded off for ease in representation.



## **Stakeholders' comments and Authority's examination**

### **Comments from IATA**

3.9. IATA submitted that IATA finds it important to once again emphasise our disagreement of shifting from Single to a Hybrid till basis for the second control period, as it unnecessarily increases costs for consumers. In this regard, it is a great disappointment that AERA has proceeded to adopt the hybrid till approach which will make aeronautical charges more expensive and goes against the fundamental requirements to boost air connectivity as envisaged by the National Civil Aviation Policy 2016 in a sustainable manner.

It should be noted that a significant part of the reductions in the second control period is driven by the one-off adjustment related to the true up exercise of the first control period. Users could therefore face steep increases for the third period which could have been avoided (or minimized) if the Single till approach had been maintained.

### **Comments from FIA**

3.10. FIA submitted as under:

3.10.1. To assist the Authority in appreciating these submissions on the CP Nos. 45 of 2017-18 ("CP"), FIA would like to state that the present submissions are without prejudice to our right and contentions, reserving FIA's right to submit additional submissions/objections at later stage and subject to the following: -

3.10.1.1. In para 3.2 of the CP, it is stated that the AAI has submitted its Multi Year Tariff Plan (MYTP) submissions dated 09.03.2016 to the Authority for the second (2nd) control period. Subsequent to the announcement of National Civil Aviation Policy (NCAP), AAI made revised submissions under Hybrid Till on 18.04.2017. AAI has further revised their submission under Hybrid Till on 26.08.2017 and 04.09.2017 as part of clarifications submitted by AAI for the 2nd control period. Further, it is observed from other relevant paras of the CP that AAI has also made certain additional submissions on 08.12.2017 and 19.01.2018, 09.05.2017, 29.06.2017,



12.10.2017, 08.11.2017, 08.12.2017, 11.01.2018 and 06.03.2017.

3.10.1.2. It is not denied that FIA is not the stakeholder for determination of tariff of Chennai International Airport. FIA submits that as per a catena of judicial pronouncements, it is a well settled principal of doctrine of natural justice - 'audi alteram partem' (meaning hear the other side), that before taking any decision/action affecting the rights and liabilities of an individual/entity, an opportunity of showing cause and to submit response thereto has to be afforded to the person whose rights and/or liabilities may be affected. This principal is further enshrined under section 13 (4) of the AERA Act, which provides that the Authority shall ensure transparency while exercising its powers and discharging its functions, inter alia:

- 3.10.1.2.1. by holding due consultations with all stakeholders with the airport;
- 3.10.1.2.2. by allowing all stakeholders to make their submissions to the authority; and
- 3.10.1.2.3. by making all decisions of the authority fully documented and explained.

3.10.2. FIA submits that it has not been provided with the copies of the additional submissions dated 18.04.2017, 26.08.2017, 04.09.2017, 08.12.2017 and 19.01.2018, 09.05.2017, 29.06.2017, 12.10.2017, 08.11.2017, 08.12.2017, 11.01.2018 and 06.03.2017\_\_made by AAI and is accordingly unable to appreciate, assess and comprehend the facts and figures (and any comparison thereto) of the CP in its entirety and actuality. Thus, FIA hereby request that the above mentioned MYTP submissions as submitted by the AAI may be made available to all the stakeholders (including FIA) for perusal and comments so as to ensure complete transparency and to enable FIA to submit requisite and consolidated observations/ comments to the present CP.

3.11. On the issue of till mechanism, FIA submitted as under: In para 2.1 it is stated that the Authority vide its Order No. 13/2010-11 dated 12.01.2011 (Airport Order) and Direction



No. 5/2010/11 dated 28.02.2011 (Airport Guidelines) had issued guidelines to determine tariffs at major airports based on Single Till mechanism. Subsequently, after the issuance of NCAP, the Authority has amended guidelines vide its Order No. 14, 2016-17 dated 12.01.2017 to determine future tariffs using Hybrid Till. It is to be noted that issuance of the policy that is NCAP cannot be used to override the statutory provision i.e. Section 13 (1) (v) of the AERA Act. Hybrid till is followed, which is in contravention to AERA tariff guidelines. In this context, the following facts are noteworthy:

3.12. It is noteworthy that in a matter pending adjudication before the Hon'ble Airports Economic Regulatory Authority Appellate Tribunal ("AERAAT"), MoCA had submitted by way of its Counter-Affidavit that the Authority is an independent regulator and suggestions of Government of India/ MoCA are not legally binding on it. Further, it has submitted that MoCA has no role to play with respect to determination of aeronautical tariff. The Authority being a party to the said matter is aware of the contents of MoCA's Counter Affidavit in the said matter.

3.13. It is submitted that Single Till is premised on the following legal framework being:

3.13.1. Section 13(1)(a)(v) of AERA Act envisages that while determining tariff for aeronautical services, the Authority shall take into consideration revenue received from services other than the aeronautical services.

3.13.2. Clause 4.2 of AERA Guidelines recognizes Single Till approach which sets out the following components on the basis of which ARR will be calculated:-

3.13.2.1. Fair Rate of Return applied to the Regulatory Asset Base

3.13.2.2. Operation & Maintenance Expenditure

3.13.2.3. Depreciation

3.13.2.4. Taxation

3.13.2.5. Revenues from services other than aeronautical services

3.13.3. AERA in its Single Till Order has held that "Single Till is most appropriate for the economic regulation of major airports in India".

3.14. It is submitted that determination of aeronautical tariff warrants a comprehensive



evaluation of the economic model and realities of the airport – both capital and revenue elements. AERA's approach of Hybrid Till for Chennai International Airport deserves to be discarded.

3.15. In the Single Till Order, Authority has strongly made a case in favor of the determination of tariff on the basis of 'Single Till'. It is noteworthy that the Authority in its inter alia Single Till Order has:

3.15.1. Comprehensively evaluated the economic model and realities of the airport – both capital and revenue elements.

3.15.2. Taken into account the legislative intent behind Section 13(1)(a)(v) of the AERA Act.

3.15.3. Concluded that the Single Till is the most appropriate for the economic regulation of major airports in India.

3.15.4. The criteria for determining tariff after taking into account standards followed by several international airports (United Kingdom, Australia, Ireland and South Africa) and prescribed by ICAO.

3.16. The Authority in its AERA Guidelines (Clause 4.3) has followed the Single Till approach while laying down the procedure for determination of ARR for Regulated Services. In this respect, the matter must be dealt with by the Authority considering the ratio pronounced by the Constitutional Bench in the Hon'ble Supreme Court Judgment in PTC vs. CERC reported as (2010) 4 SCC 603 (please ref: Paragraph Nos. 58 to 64 at Page Nos. 639 to 641). wherein it is specifically stated that regulation under a enactment/statute, as a part of regulatory framework, intervenes and even overrides the existing contracts between the regulated entities inasmuch as it casts a statutory obligation on the regulated entities to align their existing and future contracts with the said regulations.

3.17. The fundamental reasoning behind 'Single Till' approach is that if the consumers/passengers are offered cheaper air-fares on account of lower airport charges, the volume of passengers is bound to increase leading to more foot-fall and probability of higher non-aeronautical revenue. The benefit of such non aeronautical



revenue should be passed on to consumers/passengers and that can be assured only by way of lower aeronautical charges. It is a productive chain reaction which needs to be taken into account by the Authority.

3.18. FIA therefore submits as under:

3.18.1. Single Till Model ought to be applied to ALL the airports regulated and operated by the Authority regardless of whether it is a public or private airport or works under the PPP model and in spite of the concession agreements as the same is mandated by the statute.

3.18.2. Single Till is in the public interest and will not hurt the investor's interest and given the economic and aviation growth that is projected for India, Fair Rate of Return (FRoR) alone will be enough to ensure continued investor's interest.

3.18.3. MoCA's view(s) with respect to any issue at best can be considered as that of a Stakeholder and by no means are binding to Authority's exercise of determination of aeronautical tariff as is admitted by MoCA itself before the AERAAT.

3.19. In view of the above, it is submitted without prejudice that determination of aeronautical tariff on Hybrid Till basis for the 2nd second control period would set the tone and precedent for determination of aeronautical tariff in subsequent control periods contrary to the applicable legal framework. Thus, it is submitted that Authority should discard the option of determination of aeronautical tariff on Hybrid Till and follow Single Till scrupulously.

3.20. As submitted by FIA in para 5(a) above, it can be seen that due to the multiplicity of submissions made by AAI at different time intervals (which have also not been shared with the relevant stakeholders), there is an apparent delay in the incorporation of the Hybrid Till mechanism of determination of tariff, which are now being proposed to be made applicable from 1.04.2018 instead of 1.04.2016. This is without prejudice to the fact that FIA has been opposing the incorporation of Hybrid Till mechanism in place/substitution of Single Till mechanism for determination of tariff, as mentioned above. The delay has adversely affected the just and fair charge of aeronautical tariffs



being charged to the passengers.

**AAI's submission on FIA's comments**

3.21. With respect to FIA's comments on single till, AAI submitted that in order to have a level playing field across India, NCAP states that Tariff determination of Airports to be considered on 30% Hybrid Till method. In addition, AAI stated that it may be treated at par with other Private companies for determination of tariff in order to have same level playing field across India. Further, AAI mentioned that Ministry of Civil Aviation has in the recently announced Civil Aviation Policy stated that: "To ensure uniformity and level playing field across various operators, future tariffs at all airports will be calculated on a 'hybrid till' basis, unless otherwise specified for any project being bid out in future. 30% of non-aeronautical revenue will be used to cross-subsidize aeronautical charges. In case the tariff in one particular year or contractual period turns out to be excessive, the airport operator and regulator will explore ways to keep the tariff reasonable, and spread the excess amount over the future."

3.22. AAI added that AERA vide letter No. F.No. AERA/20010/Civil Aviation Policy/2014-15/9408 dated 4th August, 2016 has requested AAI to re-submit the Multi Year Tariff Proposal for determination of Aeronautical Tariff for the 2nd Control period on 30% Hybrid Till basis for Seventeen Major Airports and true up of eleven Major Airports for the First control period.

3.23. AAI has submitted MYTP on 1st Control Period on Single Till basis (True up) and 2nd Control Period on Hybrid Till basis in the month of March, 2017. After thorough examination of AAI's proposal by AERA, it came out with Consultation Paper.

**Authority's examination of IATA's and FIA's comments and AAI's submission on FIA's comments**

3.24. The Authority has noted comments from IATA and FIA related to the regulatory Till applicable for CIA and AAI's submission on FIA's comments. The Authority has decided to adopt Hybrid Till as per the revised guidelines issued vide its Order No. 14/ 2016-17 dated 12.01.2017.

3.25. With respect to FIA's comments on multiple submissions of AAI and the need to share



them with the stakeholders, the Authority would like to clarify that normally the initial Multi-Year Tariff Proposal requires further analysis and the subsequent submissions by AAI are more by way of clarifications, amendment to data, etc. which are fully captured in the Consultation Paper released by the Authority. Therefore, a separate discussion on each of the subsequent submission by AAI may not be required.

3.26. The contention of IATA that the reduction of tariffs in the second control period is mainly due to truing-up and that adoption of single till would prevent steep increase in tariffs in the next control period is not entirely correct. There are a number of factors such as change in methodology for computation of depreciation, non-allowance of unutilized assets of Terminal 4, etc. which have contributed to the reduction in tariffs in the 2<sup>nd</sup> control period. The reasons for adoption of hybrid till have been explained in the Authority's Order No. 14/ 2016-17 dated 12.01.2017. It would be premature to comment on the tariffs in the 3<sup>rd</sup> control period since this would depend on a number of factors.

सत्यमेव जयते

**Decision No. 1. Methodology for tariff determination**

1.a. The Authority decides to determine aeronautical tariffs at CIA for the first control period on Single Till basis and for the second control period on Hybrid Till basis.

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#### 4. Multi Year Tariff Proposal

- 4.1. In the 1<sup>st</sup> control period, the Authority, vide its Order No. 38/2012-13 dated 01.02.2013 had decided to determine the Aggregate Revenue Requirement (ARR) for CIA taking into account the investments and costs for both the airport services as well as cargo services. Accordingly, the Authority determined the tariffs for aeronautical services provided at CIA with tariffs effective from 01.03.2013.
- 4.2. AAI made submissions dated 09.03.2016 to the Authority for determination of tariffs for 2<sup>nd</sup> control period. The processing of this proposal took some time since there was no clarity on the methodology adopted in apportioning the expenditure on the offices of Central Headquarters and Regional Headquarter of AAI to individual airports. Meanwhile, the new National Civil Aviation Policy was announced and AAI made revised submissions under Hybrid Till on 18.04.2017. AAI then further revised their submission under Hybrid Till on 26.08.2017 and 04.09.2017 as part of clarifications submitted by AAI for the 2<sup>nd</sup> control period. AAI has not considered cargo related revenues, expenses and assets in the MYTP for 2<sup>nd</sup> control period and submitted that AAI Cargo Logistics and Allied Services Company Limited (AAICLAS) would file proposal for cargo tariffs for 2<sup>nd</sup> control period. The Authority has accepted the approach proposed by AAI since it is consistent with the stand taken by the Authority in the case of Lucknow and Guwahati.
- 4.3. AAI provides Air Navigation Services (ANS) in addition to landing, parking and other aeronautical services at CIA. AAI has submitted that the tariff proposal does not consider revenues, expenditure and assets on account of ANS. This order discusses the determination of tariffs for aeronautical services at the airport excluding ANS services.
- 4.4. AAI has informed that accounts of AAI are audited by C&AG of India as mandated by the AAI Act. The C&AG's resident audit party audits the financial records and statements of AAI airports, regional/ field offices. However, the C&AG issues the final audit certificate for the AAI as a whole and only trial balance is available for CIA. The Authority has utilized these documents as submitted by AAI for determination of tariffs.



## 5. True-up for First control period

5.1. True-up for 1<sup>st</sup> control period is calculated as difference between

5.1.1. Permissible aeronautical revenue calculated based on actual traffic and financials

5.1.2. Actual aeronautical revenue received by AAI for 1<sup>st</sup> control period

5.2. AAI has submitted opening RAB for the 1<sup>st</sup> control period under Single Till at ₹ 343.5 cr.

Table 4 – Opening RAB for the 1<sup>st</sup> control period as per AAI – Single Till

S. No.	Particulars	Amount (₹ crore)
1	Original Cost of Airport Assets excluding ANS related assets as on 01.04.2011	788.5
2	Accumulated Depreciation as on 01.04.2011	445.0
3	<b>Opening RAB[(1)-(2)] as on 01.04.2011</b>	<b>343.5</b>

### Permissible aeronautical revenues

5.3. AAI has calculated Aggregate Revenue Requirement of ₹ 3,264.4 crores (PV of ARR is ₹ 2,416.9 crores as on 1<sup>st</sup> April 2012) for 1<sup>st</sup> control period.

Table 5 - ARR as per AAI for the 1<sup>st</sup> control period – Single Till

Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
Opening RAB	343.5	449.9	1,696.8	1,611.5	1,833.9
Assets capitalized during the year	188.0	1,454.3	129.4	495.4	47.2
Disposals/ Transfer	0.0	0.0	0.0	0.0	0.0
Depreciation	81.6	207.4	214.8	272.9	272.2
Closing RAB	449.9	1,696.8	1,611.5	1,833.9	1,608.9
<b>Average RAB</b>	<b>396.7</b>	<b>1,073.4</b>	<b>1,654.2</b>	<b>1,722.7</b>	<b>1,721.4</b>
Return on Average RAB@14%	55.5	150.3	231.6	241.2	241.0
Operating Expenditure	256.5	285.4	317.0	408.8	411.7
Depreciation	81.6	207.4	214.8	272.9	272.2
Corporate Tax	122.2	56.0	114.4	142.5	185.6
Less- Revenue from services other than Regulated services	164.0	185.3	177.4	222.7	254.8
<b>ARR as per AAI</b>	<b>351.9</b>	<b>513.7</b>	<b>700.4</b>	<b>842.7</b>	<b>855.7</b>
<b>Total ARR as per AAI</b>	<b>3,264.4</b>				
<b>Discounted ARR</b>	<b>351.9</b>	<b>450.6</b>	<b>538.9</b>	<b>568.8</b>	<b>506.6</b>
<b>PV of ARR for the control period as on 01.04.2012</b>	<b>2,416.9</b>				



## Actual aeronautical revenues

5.4. AAI has submitted that it has earned aeronautical revenues of ₹ 3,140.9 crores during the 1<sup>st</sup> control period. Correspondingly, AAI has submitted that it has a shortfall of ₹ 150.4 crores (future value as on 01.04.2017) during the 1<sup>st</sup> control period. The aeronautical revenues for the 1<sup>st</sup> control period is shown below:

Table 6 - Aeronautical revenue earned for the 1<sup>st</sup> control period as per AAI Submission – Single Till

No.	Particulars (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
A	Revenues from Regulated Services					
1	Landing Charges:					
1.1	Domestic	55.1	59.9	90.2	92.4	97.4
1.2	International	63.6	64.5	143.5	157.8	173.7
1.3	<b>Total Landing Charges</b>	<b>118.8</b>	<b>124.4</b>	<b>233.7</b>	<b>250.2</b>	<b>271.2</b>
2	Parking and Housing Charges:	3.4	3.9	6.6	5.9	6.2
3	PSF(Facilitation Charges(FC)):					
3.1	Domestic	33.1	29.9	6.5	0.0	0.0
3.2	International	18.1	16.6	10.6	0.0	0.0
3.3	<b>Total PSF (FC)</b>	<b>51.2</b>	<b>46.5</b>	<b>17.1</b>	<b>0.0</b>	<b>0.0</b>
4	User Development Fees (UDF):					
4.1	Domestic	0.0	0.0	52.5	67.9	75.1
4.2	International	0.0	0.0	57.1	170.3	175.0
4.3	<b>Total UDF</b>	<b>0.0</b>	<b>0.0</b>	<b>109.6</b>	<b>238.2</b>	<b>250.2</b>
5	Fuel Throughput Charges	80.9	76.5	82.0	85.1	88.4
6	Ground Handling Charges	30.7	28.9	34.0	35.1	37.8
7	Cargo revenues	177.5	140.5	153.1	153.5	159.0
8	CUTE services	0.0	2.4	10.7	11.7	16.0
	<b>Total Aeronautical Revenues</b>	<b>462.6</b>	<b>423.1</b>	<b>646.9</b>	<b>779.7</b>	<b>828.7</b>



Table 7 - ARR and its resultant shortfall as per AAI for 1<sup>st</sup> control period – Single Till

No.	Components (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16	Total
1	ARR for year	351.9	513.7	700.4	842.7	855.7	3,264.4
2	Aeronautical Revenue	462.6	423.1	646.9	779.7	828.7	3,140.9
3	Shortfall (+)/ Excess (-)	-110.7	90.6	53.5	63.0	27.0	123.5
4	Future Value of shortfall (+)/ excess (-) as on 01.04.2017	-242.9	174.5	90.3	93.4	35.1	150.4

### Authority's Examination

5.5. The Authority had proposed adjustments on the following building blocks for calculating true-up of 1<sup>st</sup> control period

5.5.1. Adjustment of accumulated depreciation upto 01.04.2011

5.5.2. Adjustment of capital additions of 1<sup>st</sup> control period

5.5.3. Adjustment of depreciation

5.5.4. Adjustment of non-aeronautical revenues

5.5.5. Apportionment of CHQ/RHQ costs and change in tax calculation

5.5.6. Correction of present value factor for shortfall/ excess calculation

### Adjustment of accumulated depreciation upto 01.04.2011

5.6. AAI has used depreciation rates as per the accounting policy approved by AAI board to determine the accumulated depreciation upto 01.04.2011. However, the Authority noted that there were calculation mistakes in the determination of the accumulated depreciation upto 01.04.2011 for various airport assets. The Authority requested AAI to review these calculations and provide the revised accumulated depreciation upto 01.04.2011. Subsequently, AAI vide their submissions dated 26.08.2017, 04.09.2017 and 12.10.2017 had submitted the revised accumulated depreciation amounts upto 01.04.2011. The Authority had proposed to revise the accumulated depreciation upto 01.04.2011 to ₹ 458.6 cr. from ₹ 445.0 cr. as per AAI's submissions.

### Adjustment of capital additions of 1<sup>st</sup> control period

5.7. The Authority observed that the arrival level of Terminal 4 is not being utilized by AAI. Terminal 4 handles the international operations at CIA. Since the asset is not being



utilized by AAI, the Authority had proposed to exclude the capital additions incurred with respect to the value of assets in the arrival section in Terminal 4.

5.8. AAI vide their submission dated 08.12.2017 and 19.01.2018 provided the total cost of Terminal 4 capitalized in FY 2012-13 and FY 2013-14 and in addition submitted that the assets of Terminal 2 and Terminal 3 have been fully depreciated. AAI also submitted on 08.12.2017 and 19.01.2018 that approximately 80% of Terminal 4 area was being utilized by AAI.

5.9. The Authority noted that AAI has not provided details of area-wise usage (that is area allocated and its utilization for departure, immigration, customs, security hold, arrival, non-aeronautical, office spaces, etc.) of Terminal 4. It is not clear from AAI's response whether the said area in Terminal 4 is being used for intended purposes or for other commercial or non-airport purposes.

5.10. Since the usage of arrival area is not clear and it is not known whether the area is being completely used for intended purpose of handling passengers, the Authority had proposed to consider 50% of the Terminal 4 area as unutilized as departure area is being fully utilized. Accordingly, the Authority had proposed to exclude 50% of the capital expenditure incurred for construction of Terminal 4 while true-up of the 1<sup>st</sup> control period and tariff determination of the 2<sup>nd</sup> control period in the Consultation Paper as per the table below.

Table 8 – Adjustment of capital expenditure due to non-utilization of Terminal 4 as considered by the Authority in the Consultation Paper

in ₹ cr.	FY 2012-13	FY 2013-14	Total
Total Terminal 4 cost (civil, electrical and electronics)	214.4	106.5	320.9
<b>Capital Cost of Terminal 4 considered for true up of 1<sup>st</sup> control period and tariff determination of 2<sup>nd</sup> control period</b>	107.2	53.2	<b>160.5</b>
<b>Reduction in capital expenditure of 1<sup>st</sup> control period due to such exclusion</b>	107.2	53.2	<b>160.5</b>



## Adjustment for Depreciation

5.11. AAI has used depreciation rates as per the accounting policy approved by AAI Board.

The depreciation rates used by AAI for key assets are –

Table 9 - Depreciation rates as submitted by AAI

No.	Asset Class	As per AAI
1	Land	0%
2	Runways, Taxiways, Aprons	13%
3	Roads, Bridges & culvert	13%
4	Terminal/Other Buildings	8%
5	Cargo Building	8%
6	Temporary Buildings	100%
7	Building – Residential	5%
8	Security Fencing	100%
9	Boundary wall (operational)	8%
10	Other Buildings – Unclassified	8%
11	Computer, IT Hardware & Access.	20%
12	Computer Software	20%
13	Plant and Machinery	11%
14	Tools & Equipments	20%
15	Office Furniture & Fixtures	20%
16	Other Vehicles	14%
17	Electrical Installations	11%
18	Office Equipments	18%
19	Furniture & Fixtures	20%
20	X-Ray Baggage	11%
21	CFT	13%
22	Boundary wall (residential)	5%

5.12. The Authority had proposed the following depreciation rates:

5.12.1. For asset types not defined under Companies Act (runway, taxiway and aprons): 3.33% based on useful life of 30 years from FY 2011-12 onwards for 1<sup>st</sup> control period

5.12.2. For asset types defined under Companies Act: rates prevalent under the Companies Act 1956 till FY 2013-14 and as per the Companies Act 2013 from FY 2014-15 onwards for 1st control period as the effective date of implementation of the Companies Act 2013 is 01.04.2014. The depreciation



rates as submitted by AAI and as considered by the Authority are given in Table 39 for the 1<sup>st</sup> control period.

5.13. Depreciation for the 1<sup>st</sup> control period was calculated on the basis of actual date of capitalization of assets.

5.14. The revised depreciation for the 1<sup>st</sup> control period under Single Till in the Consultation Paper is given below:

Table 10 – Depreciation for 1<sup>st</sup> control period – Single Till as considered by the Authority in the Consultation Paper

No.	Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16	Total
1	As per AAI	81.6	207.4	214.8	272.9	272.2	1,048.8
2	As per Authority	24.9	61.5	63.2	135.9	136.8	422.3

5.15. AAI has taken the cost of land of ₹ 6.9 cr. in RAB. In respect of cost of land, the Authority had noted 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 exorbitantly high rates. However, the Authority realizes that unless some kind of return is given on land, future land acquisitions for airport purposes could become a major hurdle for airport development. The Authority would soon come up with a Consultation Paper on the issue.

5.16. It is therefore proposed to exclude the existing cost of land and additions (existing cost of land of ₹ 3.5 crores in FY 2011-12 and additions of ₹ 3.4 cr. in FY 2011-12) from the RAB till a final decision is taken on the issue.

5.17. Opening RAB as on 01.04.2011 has been revised on account of changes in the accumulated depreciation upto 01.04.2011 and exclusion of existing cost of land from RAB. Further, with the adjustment of capital additions, change in depreciation rates and exclusion of land cost from additions in FY 2011-12, the RAB in subsequent years of 1<sup>st</sup> control period have also been revised as shown below –



Table 11 – Average RAB for 1<sup>st</sup> control period – Single Till as considered by the Authority in the Consultation Paper

No	Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
1	<b>As per AAI</b>					
	Opening RAB	343.5	449.9	1,696.8	1,611.5	1,833.9
	Additions	188.0	1,454.3	129.4	495.4	47.2
	Disposals	0.0	0.0	0.0	0.0	0.0
	Depreciation	81.6	207.4	214.8	272.9	272.2
	Closing RAB	449.9	1,696.8	1,611.5	1,833.9	1,608.9
	<b>Average RAB</b>	<b>396.7</b>	<b>1,073.4</b>	<b>1,654.2</b>	<b>1,722.7</b>	<b>1,721.4</b>
2	<b>As per Authority</b>					
	Opening RAB	326.4	486.1	1,771.7	1,784.7	2,144.1
	Additions	184.6	1,347.1	76.2	495.4	47.2
	Disposals	0.0	0.0	0.0	0.0	0.0
	Depreciation	24.9	61.5	63.2	135.9	136.8
	Closing RAB	486.1	1,771.7	1,784.7	2,144.1	2,054.5
	<b>Average RAB</b>	<b>406.3</b>	<b>1,128.9</b>	<b>1,778.2</b>	<b>1,964.4</b>	<b>2,099.3</b>

#### Adjustment for Non-Aeronautical revenues

5.18. The Authority noted that AAI has considered lease rental and rent revenues from cargo, ground handling agencies and oil companies as non-aeronautical revenues during the 1st control period. As per the provisions of the AERA Act, the services rendered in respect of ground handling, oil companies and cargo are aeronautical services.

5.19. The Authority had proposed to consider the revenues from Ground Handling Services and Supply of fuel to aircraft including land lease rentals as aeronautical revenue.

5.20. The Authority noted that the lease rent as per the trial balance of CIA in FY 2015-16 is ₹ 67.7 cr. which is different from the submissions of AAI for lease rent in FY 2015-16 (₹ 72.5 cr.). The Authority had proposed to consider the amount of lease rent in the trial balance as per clarification provided by AAI.



Table 12 – Comparison of NAR as considered by AAI and the Authority for 1<sup>st</sup> control period in the Consultation Paper

NAR (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
NAR as submitted by AAI (1)	164.0	185.3	177.4	222.7	254.8
Adjustment					
Revenue from Cargo, Ground handling, fuel services treated as aeronautical and other corrections (2)	11.9	12.7	21.4	41.9	49.5
NAR as per Authority (3 = 1 - 2)	152.1	172.6	156.0	180.8	205.3

#### Adjustment for operating expenditure (CHQ/ RHQ expenditure apportionment)

5.21. Total CHQ/ RHQ expenses for AAI is as shown in table below. AAI has requested the apportionment of CHQ/ RHQ expenses while determining tariffs of major airports. CHQ/ RHQ expenses allocation for CIA consist of two components – Expenditure for CIA employee's retirement benefit allocated at CHQ and overheads at CHQ. The CHQ expense considered for apportionment have been netted off against the income received by CHQ. For CIA, RHQ overheads of southern region has not been apportioned to CIA as it directly reports to CHQ and not to RHQ.

5.22. The retirement benefit is allocated on the basis of number of employees at CIA. The Authority had proposed to allocate the CHQ overhead expenses for the airport services after excluding the ANS expenses on revenue basis which is consistent with the approach adopted by the Authority in MYTP of 1<sup>st</sup> Control Period for Guwahati and Lucknow airports. The Authority observes that as per the above methodology the CHQ overhead expenses are allocated in proportion to the capacity of the airport to absorb higher cost of CHQ. Under this methodology, a portion of CHQ expenses are allocated to Delhi and Mumbai airports based on revenue received by AAI from these airports.



Table 13 - Summary of CHQ/ RHQ Overheads as submitted by AAI for 1<sup>st</sup> control period

No.	in ₹ cr.	2012	2013	2014	2015	2016
<b>Apportionment of CHQ/ RHQ overheads</b>						
1	CHQ Expenses	259.3	331.2	303.8	397.3	404.6
2	Less - CHQ Revenue	93.8	152.6	183.5	236.8	227.7
3	<b>Net CHQ Expenses (1-2)</b>	<b>165.6</b>	<b>178.7</b>	<b>120.3</b>	<b>160.5</b>	<b>176.9</b>
	<b>CHQ/ RHQ Overheads allocated to CIA</b>	<b>32.5</b>	<b>27.1</b>	<b>18.8</b>	<b>26.8</b>	<b>27.2</b>
<b>Apportionment of Retirement Benefits at CHQ</b>						
	<b>Total provision of retirement benefits at CHQ</b>	<b>159.7</b>	<b>289.4</b>	<b>160.0</b>	<b>275.2</b>	<b>182.9</b>
	<b>Provision of Retirement Benefits at CHQ for CIA</b>	<b>17.6</b>	<b>37.7</b>	<b>18.7</b>	<b>32.3</b>	<b>20.8</b>

5.23. The Authority also noted that AAI has included financing charges as part of O&M expenses for the 1<sup>st</sup> control period. The Authority had proposed not to include interest payments on long term debt as a component of O&M expenses for true-up calculation since the financing charges would be recovered as part of the return on the RAB.

5.24. AAI vide its clarification dated 12.10.2017 submitted that the municipal tax should be considered as ₹ 0.5 cr. instead of ₹ 5.1 cr. for FY 2014-15. The Authority has accordingly revised the municipal tax expenses.

5.25. AAI vide its clarification dated 12.10.2017 revised the R&M expenditure for FY 2014-15 to ₹ 41.7 cr. from ₹ 69.9 cr.. The Authority requested AAI to provide justification for increase in R&M expenditure in FY 2014-15 and FY 2015-16. In response, AAI submitted that the reason for increase in R&M expenditure during FY 2015-16 is majorly due to i) Runway resurfacing: Civil – ₹ 11.1 cr. and Electrical – ₹ 5.9 cr., ii) CAMC-Electrical-A/c Equipment – ₹ 5.0 cr. and iii) AOCC - Amount transferred from CHQ ₹ 4.7 cr. Further, AAI submitted that the reason for increase in R&M expenditure during FY 2014-15 is majorly due to i) ₹ 0.9 cr. payment towards R&M of Inline Baggage system for New Domestic Terminal ii) ₹ 8.2 cr. provision of liability towards manpower for Handling Inline baggage by M/s. Air India and iii) ₹ 0.1 cr. - spares purchased for Rosanbar AFFRV. The Authority has noted AAI's response and had proposed to exclude the operational expenditure in FY 2015-16 of ₹ 4.7 cr. for AOCC - Amount transferred from CHQ since AAI has not provided the details of this expenditure which is related to CHQ.



Further, the Authority had proposed to exclude ₹ 8.2 cr. for provision of liability towards manpower for handling inline baggage by Air India from operational expenditure of FY 2014-15 since doubtful debts are not allowed under operational expenditure.

5.26. In view of the above, the O&M expenditure for 1<sup>st</sup> control period in the Consultation Paper is given in table below.

Table 14 - Summary of O&M expenditure for 1<sup>st</sup> control period -Single Till as considered by the Authority in the Consultation Paper

No.	Particulars (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
1	Pay roll Expenditure of CIA	112.9	105.6	117.9	127.4	124.6
2	Expenditure for CIA employees' retirement benefits allocated at CHQ	17.6	37.7	18.7	32.3	20.8
<b>A</b>	<b>Total Pay roll Expenditure (1+2)</b>	<b>130.4</b>	<b>143.2</b>	<b>136.6</b>	<b>159.7</b>	<b>145.5</b>
3	Administrative and General Expenditure	2.4	3.6	3.4	4.8	4.2
4	Apportionment of administration & General expenditure of CHQ	32.5	27.1	18.8	26.8	27.2
<b>B</b>	<b>Total Administration &amp; General Expenditure(3+4)</b>	<b>35.0</b>	<b>30.7</b>	<b>22.2</b>	<b>31.5</b>	<b>31.4</b>
<b>C</b>	<b>Repairs and Maintenance Expenditure</b>	<b>18.4</b>	<b>28.6</b>	<b>32.9</b>	<b>33.5</b>	<b>65.7</b>
5	Power Charges	29.7	46.1	67.5	68.1	77.8
6	Water Charges	1.0	1.6	2.5	2.3	1.7
7	Outsourcing Charges	1.9	5.4	5.6	10.2	15.1
<b>D</b>	<b>Utility and Outsourcing Expenditure</b>	<b>32.6</b>	<b>53.1</b>	<b>75.7</b>	<b>80.6</b>	<b>94.6</b>
<b>E</b>	<b>Other Outflows</b>	<b>40.1</b>	<b>29.7</b>	<b>14.9</b>	<b>8.6</b>	<b>17.6</b>
	<b>Total (A+B+C+D+E)</b>	<b>256.5</b>	<b>285.4</b>	<b>282.2</b>	<b>314.0</b>	<b>354.7</b>

#### Adjustment in base year for calculating present value of shortfall/ excess

5.27. The Authority noted that the present value factor considered by AAI for the shortfall/ excess in aggregate revenue collection in comparison to allowable aggregate revenue for the 1<sup>st</sup> control period (refer to Table 7) is calculated as on 01.04.2017 instead of 01.04.2016. The Authority had proposed to consider the present value of shortfall/ excess as on 01.04.2016.

#### Tax calculation for 1<sup>st</sup> control period

5.28. The tax calculation as submitted by AAI for 1<sup>st</sup> control period apportions actual tax



liability of AAI based on the profit before tax of CIA and profit before tax of AAI.

5.29. The Authority noted that the tax liability of AAI would include tax as a result of income from Delhi and Mumbai airports. Therefore, the Authority had proposed to determine tax for CIA by applying provisional tax rate on the standalone profit before tax of the airport. In addition, for calculation of tax, the Authority had proposed to determine depreciation considering the depreciation rates applicable under Income Tax laws.

5.30. AAI has submitted revised tax calculations based on standalone financials of CIA. The Authority had proposed to consider the tax calculation as given below.

Table 15 – Revised amount of Tax for the 1<sup>st</sup> control period as considered by the Authority in the Consultation Paper

Particular (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
Aeronautical Revenues	474.5	435.8	668.2	821.6	873.4
Non-Aeronautical Revenues	152.1	172.6	156.0	180.8	205.3
O&M (excluding retirement benefits and CHQ/ RHQ Overheads)	206.4	220.6	244.7	254.9	306.7
Retirement benefits and CHQ/ RHQ Overheads	50.1	64.8	37.5	59.1	48.0
Depreciation as per IT Act	67.4	217.8	199.6	248.9	222.4
PBT	302.7	105.2	342.4	439.5	501.6
<b>Tax</b>	<b>98.2</b>	<b>34.1</b>	<b>116.4</b>	<b>149.4</b>	<b>173.6</b>

#### Revised Aggregate Revenue Requirement

5.31. The ARR for the 1<sup>st</sup> control period has been revised based on adjustments detailed above.

5.31.1. Adjustment of accumulated depreciation upto 01.04.2011

5.31.2. Adjustment of capital additions of 1st control period

5.31.3. Adjustment of depreciation

5.31.4. Adjustment of non-aeronautical revenues

5.31.5. Apportionment of CHQ/RHQ costs and change in tax calculation

5.31.6. Correction of present value factor for shortfall/ excess calculation



Table 16 - ARR for the 1<sup>st</sup> control period – Single Till as considered by the Authority in the Consultation Paper

Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
Average RAB	406.3	1,128.9	1,778.2	1,964.4	2,099.3
Return on Average RAB@14%	56.9	158.0	248.9	275.0	293.9
Operating Expenditure	256.5	285.4	282.2	314.0	354.7
Depreciation	24.9	61.5	63.2	135.9	136.8
Corporate Tax	98.2	34.1	116.4	149.4	173.6
Less- Revenue from services other than Regulated services	152.1	172.6	156.0	180.8	205.3
<b>ARR as per Authority</b>	<b>284.4</b>	<b>366.5</b>	<b>554.8</b>	<b>693.5</b>	<b>753.7</b>
<b>Total ARR as per Authority</b>	<b>2,652.9</b>				
<b>Discounted ARR</b>	<b>284.4</b>	<b>321.5</b>	<b>426.9</b>	<b>468.1</b>	<b>446.2</b>
<b>PV of ARR for the control Period as on 01.04.2012</b>	<b>1,947.1</b>				

5.32. Correspondingly, the shortfall/ excess during the 1<sup>st</sup> control period between permissible aeronautical revenues and actual aeronautical revenues in the Consultation Paper is calculated as below:

Table 17 - ARR, yield and shortfall/ excess for 1<sup>st</sup> control period – Single Till as considered by the Authority in the Consultation Paper

No.	Components (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16	Total
1	ARR for year (refer Table 16)	284.4	366.5	554.8	693.5	753.7	<b>2652.9</b>
2	Aeronautical Revenue	474.5	435.8	668.2	821.6	873.4	<b>3273.5</b>
3	Shortfall (+) / Excess (-)	-190.0	-69.3	-113.5	-128.1	-119.7	<b>-620.6</b>
4	Future Value of shortfall (+)/ Excess (-) as on 01.04.2016	-365.9	-117.1	-168.1	-166.4	-136.5	<b>-954.0</b>

5.33. Based on the material before it and its analysis, the Authority proposed the following:

5.33.1. To true-up the 1st control period on the basis of Single Till

5.33.2. To apportion CHQ/RHQ overheads on revenue basis.

5.33.3. To consider the revenues from Cargo facility, Ground Handling Services and Supply of fuel to aircraft including land lease rentals as aeronautical revenue.

5.33.4. To apply the following depreciation rates.

5.33.4.1. For asset types not defined under Companies Act (runway, taxiway and aprons): 3.33% based on useful life of 30 years from FY 2011-12



onwards

5.33.4.2. For asset types defined under Companies Act: rates prevalent under the Companies Act 1956 till FY 2013-14 and as per the Companies Act 2013 from FY 2014-15 onwards as the effective date of implementation of the Companies Act 2013 is 01.04.2014. The depreciation rates as submitted by AAI and as considered by the Authority are given in Table 39.

5.33.5. To consider excess of ₹ 954.0 crores in the 1<sup>st</sup> control period to be added to ARR for the 2<sup>nd</sup> control period.

#### ***Stakeholders' comments and Authority's examination***

##### ***Comments from IATA***

5.34. IATA submitted that it agrees with the proposals, but would appreciate AERA to take the following into consideration:

5.34.1. While we understand the rationale behind not capitalising a portion of Terminal 4, it would be advisable for AERA to state the conditions that the airport need to meet in order to allow such expenditure.

5.34.2. We see that land cost has been disallowed pending further study on the matter. We also see that such approach has been adopted in other decisions. It would be prudent for AERA to carry out such assessment as soon as possible in order to bring this matter to a close.

5.34.3. AERA has apparently not made an assessment on whether the value of the capitalised assets is efficient. AERA may need to make such an analysis before allowing costs in full. Similar can also be said of the operating costs.

##### ***Authority's examination of IATA's comments***

5.35. With respect to IATA's comments on the conditions for consideration of the capital expenditure in the RAB for an airport, the Authority notes that these need to be considered on a case-to-case basis while taking into account the airport master plan, practical constraints, intended use, stakeholder views, actual traffic versus airport capacity, etc.



5.36. The Authority noted IATA's comment related to treatment of land and the Authority will shortly issue a consultation paper on this and take a view on the treatment of cost of land while determining tariffs in future.

5.37. With respect to IATA's comment on efficiency of cost of capitalised assets, the Authority notes that the projected total capital expenditure in the 1<sup>st</sup> control period Order was ₹ 2,862.7 cr. in comparison to which AAI has capitalized a lower amount of ₹ 2,314.3 cr. Besides, the Authority has excluded part of the capital expenditure incurred for Terminal 4 for the period of non-utilization. The Authority also notes that AAI being a public sector entity, it is required to follow proper procedures before incurring capital expenditure. Once the requirement of facilities is finalized and the procedures are followed, it is presumed that the expenditure on creation of assets is efficient. In such a scenario, it is considered that there is no need to revisit the justification for the capital expenditure or to modify the cost which has been incurred, after following the proper procedures.

#### **Comments from FIA**

5.38. On rectification of mistake in calculation of accumulated depreciation, FIA submitted that in para 4.6 of the CP, it is stated that the Authority noted certain calculation mistakes in the determination of the accumulated depreciation upto 01.04.2011 for various airport assets. Based on the request of the Authority to review such mistakes, the AAI vide their submissions dated 26.08.2017, 04.09.2017 and 12.10.2017 submitted the revised accumulated depreciation amounts upto 01.04.2011. It has been stated the Authority proposes to revise the accumulated depreciation upto 01.04.2011 to ₹ 458.6 cr. from ₹ 445.0 cr. as per AAI's submissions. In this regard, FIA would like to request AAI to clarify and place on record as to whether AAI auditor incorporated the calculation mistake(s) in its balance sheet and mentioned/rectified the same in AAI's audit report.

5.39. Study on Cost of Land to be made public – FIA submitted that in para 4.15, it is stated that AAI has taken the cost of land of ₹ 6.9 cr. in RAB. 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. Further, the Authority proposes to conduct a study based on which the treatment to be given to cost of land can be determined, so that appropriate return on land is given for future land acquisition purposes. FIA submits that report for such study should be made public for consideration of all the stakeholders to ensure transparency and level playing field for all the stakeholders (including FIA). Further, it is to be considered that in the absence of any supporting documents like study reports mentioned, FIA is not in position to study the present CP in its right context and spirit. The same is a violation of the principle of natural justice and fair play which is the paramount principle of any regulatory decision by any regulator.

***AAI's submission on FIA's comments***

5.40. In response to FIA's comment on the accumulated depreciation calculations, AAI submitted that it is a calculation mistake for determining opening RAB in the financial model in determination of tariff and same has been corrected by AERA. Further, AAI submitted that there is no error in the balance sheet and profit and loss of AAI's books of account.

5.41. In response to FIA's comment on treatment of land cost, AAI submitted that AERA has not yet come out with the study report of treatment of land. Further, AAI submitted that the treatment would be true up in the third control period and AAI would be benefitted out of it.

***Authority's examination of FIA's comments and AAI's submission on FIA's comments***

5.42. The Authority has noted AAI's submission on FIA's comment on change of accumulated depreciation upto 01.04.2011.

5.43. With respect to FIA's comment on the study to determine the treatment of land cost, the Authority has provided its view in para 5.36.

***AAI's submission on True-up of the 1st control period***

5.44. On the non-utilization of Terminal 4 (T-4) arrival area, AAI confirmed that the unutilized portion of T-4 (Arrival) is 20%. The modification work is likely to be



completed by September 2018. As per the presentation at stakeholder consultation meeting on 09.03.2018, AAI submitted that the total area of Terminal 4 is 64,204 sq. m. Arrival level area is 18,233 sq. m. of which some part is currently used for remote departure services and airline immigration offices. The total unutilized area is 12,841 sq. m. in the arrival area, around 20% of the total area.

5.45. AAI proposed to put to use the unutilized portion of T-4 by converting T-4 Arrival into International Departure by Sept, 2018 with suitable modifications so as to decongest the departure level during peak hours. As per AAI, the capacity of T-4 is 4 mppa, i.e. departure 2 mppa and arrival 2 mppa. Traffic Handled by T-4 is 5.2 mppa, i.e. departure 2.6 mppa and arrival 2.6 mppa (in 2016-17). By converting arrival area (Ground Floor) to additional departure area, total T-4 Capacity would be exclusively for departure 4 mppa.

5.46. On the operational expenditure (R&M expenditure), AAI requested the Authority to consider the operational expenditure which has not been considered in CP for which details of the award letter of AOCC expenses are submitted. AAI submitted that the operational expenditure of ₹ 8.2 cr. is the expenditure towards manpower for handling inline baggage of Air India which has been excluded from the FY 2014-15 R&M expenses of 1st control period. Accordingly, AAI requested the Authority to consider this operational expenditure while truing-up 1st control period.

5.47. AAI submitted that as per AAI's calculation ₹ 44.72 cr. is towards revenue for the land/ lease rent in case of cargo, ground handling and fuel services in FY 2016-17 as against ₹ 50 cr. considered in Consultation Paper.

#### **Authority's examination of AAI's submission**

5.48. With respect to the T-4 utilization, the Authority notes from AAI's submission that total unutilized area of T-4 is 12,841 sq. m. The Authority has inspected the site and is of the view that approximately 15,000 sq. m. of T-4 is unutilized which forms 23% of the total T-4 area. Accordingly, the Authority decides to exclude 23% of the capital expenditure incurred for construction of T-4 while truing-up of the 1<sup>st</sup> control period and tariff determination of the 2<sup>nd</sup> control period as per the Table 18. The Authority



notes that the total reduction in capital expenditure of 1st control period due to exclusion of a part of T-4 assets is INR 75.0 cr. in this Order as against INR 160.5 cr. in the Consultation Paper.

Table 18 – Adjustment of capital expenditure due to non-utilization of T-4 as considered by the Authority in the Order

in ₹ cr.	FY 2012-13	FY 2013-14	Total
Total Terminal 4 cost (civil, electrical and electronics)	214.4	106.5	320.9
<b>Capital Cost of Terminal 4 considered for true up of 1<sup>st</sup> control period and tariff determination of 2<sup>nd</sup> control period</b>	<b>164.3</b>	<b>81.6</b>	<b>246.0</b>
<b>Reduction in capital expenditure of 1<sup>st</sup> control period due to such exclusion</b>	<b>50.1</b>	<b>24.9</b>	<b>75.0</b>

5.49. Further, the Authority has noted AAI's proposal on the modification of the unutilized arrival area to serve as international departure by September, 2018. The Authority has requested for stakeholder comments on AAI's proposal in the stakeholder consultation meeting held on 09.03.2018. In the meeting, the stakeholders have mentioned that the current international departure is congested and the modification of arrival area into international departure would help in easing the congestion. Moreover, AAI submitted that an internal stakeholder consultation meeting was organized to arrive at the decision of converting arrival area into international departure. Besides, the Authority has also undertaken a site inspection of T-4 arrival area with AAI officials to develop further understanding of the proposed plans. In view of the above, the Authority decides to include the entire T-4 assets in the aeronautical RAB of CIA from 01.10.2018 onwards when it is expected to be put to use. The Authority would true-up the RAB for 2<sup>nd</sup> control period based on the actual date of utilization of the currently unutilized T-4 assets.

5.50. With respect to the revision of the operational expenditure to account for AOCC expenses, the Authority noted that AAI has submitted the award letter for AOCC expenses on 16.03.2018. On 26.03.2018, AAI confirmed that the AOCC expenses are as



per actuals and the R&M Electronics expenses, of which AOCC is part, for FY 2014-15 and FY 2015-16 have to be revised as per the table below:

Table 19 – R&M Electronics expenses revised for FY 2014-15 and FY 2015-16 for 1<sup>st</sup> control period – Single Till

in ₹ cr.	2015	2016
R&M Electronics expenses without AOCC	11.6	8.1
AOCC expenses - Contract No. 1	28.3	8.1
<b>Total R&amp;M Electronic expenses (revised)</b>	<b>39.9</b>	<b>16.1</b>
<b>Total R&amp;M Electronic expenses (as per Consultation Paper)</b>	<b>11.6</b>	<b>11.4</b>
<b>Change in R&amp;M Electronic expenses</b>	<b>28.3</b>	<b>4.7</b>

5.51. The Authority has noted that the AOCC expenses proposed by AAI are as per the payment terms in the award letter. AOCC expenses would form part of the R&M-Electronics expenses. Accordingly, the Authority decides to consider the R&M Electronics expenses as per the Table 19.

5.52. In addition, considering AAI's submission on the R&M expenses, the Authority decides to include ₹ 8.2 cr. for expenditure towards manpower for handling inline baggage of Air India in FY 2014-15 R&M expenses of 1st control period since these are based on actuals.

5.53. The revised operational expenditure as considered by the Authority for the 1<sup>st</sup> control period has been provided in table below:

Table 20 - Summary of O&M expenditure for 1<sup>st</sup> control period - Single Till as considered in the Order by the Authority

No.	Particulars (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
1	Pay roll Expenditure of CIA	112.9	105.6	117.9	127.4	124.6
2	Expenditure for CIA employees' retirement benefits allocated at CHQ	17.6	37.7	18.7	32.3	20.8
<b>A</b>	<b>Total Pay roll Expenditure (1+2)</b>	<b>130.4</b>	<b>143.2</b>	<b>136.6</b>	<b>159.7</b>	<b>145.5</b>
3	Administrative and General Expenditure	2.4	3.6	3.4	4.8	4.2
4	Apportionment of administration & General expenditure of CHQ	32.5	27.1	18.8	26.8	27.2
<b>B</b>	<b>Total Administration &amp; General Expenditure(3+4)</b>	<b>35.0</b>	<b>30.7</b>	<b>22.2</b>	<b>31.5</b>	<b>31.4</b>
<b>C</b>	<b>Repairs and Maintenance Expenditure</b>	<b>18.4</b>	<b>28.6</b>	<b>32.9</b>	<b>69.9</b>	<b>70.4</b>



No.	Particulars (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
5	Power Charges	29.7	46.1	67.5	68.1	77.8
6	Water Charges	1.0	1.6	2.5	2.3	1.7
7	Outsourcing Charges	1.9	5.4	5.6	10.2	15.1
D	Utility and Outsourcing Expenditure	32.6	53.1	75.7	80.6	94.6
E	Other Outflows	40.1	29.7	14.9	8.6	17.6
	<b>Total (A+B+C+D+E)</b>	<b>256.5</b>	<b>285.4</b>	<b>282.2</b>	<b>350.5</b>	<b>359.4</b>

5.54. With respect to AAI's submission dated 26.03.2018 on the non-aeronautical revenue, the Authority decides to revise the NAR as per table below since these are based on actuals:

Table 21 – Comparison of NAR as considered by AAI and the Authority for 1<sup>st</sup> control period in the Order

NAR (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
<b>NAR as submitted by AAI (1)</b>	<b>164.0</b>	<b>185.3</b>	<b>177.4</b>	<b>222.7</b>	<b>254.8</b>
<b>Adjustment</b>					
<i>Revenue from Cargo, Ground handling, fuel services treated as aeronautical and other corrections (2)</i>	11.9	11.9	12.7	21.4	41.9
<b>NAR as per Authority (3 = 1 - 2)</b>	<b>152.1</b>	<b>173.5</b>	<b>164.6</b>	<b>201.3</b>	<b>212.9</b>

5.55. RAB for the 1<sup>st</sup> control period has been revised due to change in the non-utilized area of T-4 as shown in table below:

Table 22 – Average RAB for 1<sup>st</sup> control period – Single Till as considered in the Order by the Authority

No	Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
	Opening RAB	326.4	486.1	1,827.6	1,867.0	2,222.4
	Additions	184.6	1,404.2	104.5	495.4	47.2
	Disposals	0.0	0.0	0.0	0.0	0.0
	Depreciation	24.9	62.7	65.2	139.9	140.8
	Closing RAB	486.1	1,827.6	1,867.0	2,222.4	2,128.9
	<b>Average RAB</b>	<b>406.3</b>	<b>1,156.9</b>	<b>1,847.3</b>	<b>2,044.7</b>	<b>2,175.7</b>

5.56. Revised ARR for the 1<sup>st</sup> control period has been shown in table below:

Table 23 - ARR for the 1<sup>st</sup> control period – Single Till as considered in the Order by the Authority



Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
Average RAB	406.3	1,156.9	1,847.3	2,044.7	2,175.7
Return on Average RAB@14%	56.9	162.0	258.6	286.3	304.6
Operating Expenditure	256.5	285.4	282.2	350.5	359.4
Depreciation	24.9	62.7	65.2	139.9	140.8
Corporate Tax	98.2	32.2	113.4	134.3	171.2
Less- Revenue from services other than Regulated services	152.1	173.5	164.6	201.3	212.9
<b>ARR as per Authority</b>	<b>284.4</b>	<b>368.7</b>	<b>554.8</b>	<b>709.6</b>	<b>763.1</b>
<b>Total ARR as per Authority</b>	<b>2,680.7</b>				
<b>Discounted ARR</b>	<b>284.4</b>	<b>323.4</b>	<b>426.9</b>	<b>479.0</b>	<b>451.8</b>
<b>PV of ARR for the control Period as on 01.04.2012</b>	<b>1,965.6</b>				

5.57. Correspondingly, the shortfall/ excess during the 1<sup>st</sup> control period between permissible aeronautical revenues and actual aeronautical revenues is calculated as below:

Table 24 - ARR, yield and shortfall/ excess for 1<sup>st</sup> control period – Single Till as considered in the Order by the Authority

No.	Components (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16	Total
1	ARR for year (refer Table 23)	284.4	368.7	554.8	709.6	763.1	2,680.7
2	Aeronautical Revenue	474.5	434.9	659.6	801.0	870.6	3,240.6
3	Shortfall (+) / Excess (-)	-190.0	-66.2	-104.8	-91.4	-107.5	-560.0
4	Future Value of shortfall (+)/ Excess (-) as on 01.04.2016	-365.9	-111.9	-155.3	-118.8	-122.6	-874.4

#### Decision No. 2. True-up for the 1<sup>st</sup> control period

- 2.a. The Authority decides to true-up the 1<sup>st</sup> control period on the basis of Single Till
- 2.b. The Authority decides to apportion CHQ/RHQ overheads on revenue basis.
- 2.c. The Authority decides to consider the revenues from Cargo facility, Ground Handling Services and Supply of fuel to aircraft including land lease rentals as aeronautical revenue.
- 2.d. The Authority decides the following depreciation rates.
  - i) For asset types not defined under Companies Act (runway, taxiway and aprons):  
3.33% based on useful life of 30 years from FY 2011-12 onwards



- ii) For asset types defined under Companies Act: rates prevalent under the Companies Act 1956 till FY 2013-14 and as per the Companies Act 2013 from FY 2014-15 onwards as the effective date of implementation of the Companies Act 2013 is 01.04.2014. The depreciation rates as submitted by AAI and as considered by the Authority are given in Table 39 for the 1<sup>st</sup> control period.
- 2.e. The Authority decides to consider excess of ₹ 874.4 crores in the 1<sup>st</sup> control period to be added to ARR for the 2<sup>nd</sup> control period.



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## 6. Traffic forecast

6.1. The traffic growth rates as submitted by AAI for 2<sup>nd</sup> control period are as follows:

Table 25 - Traffic Growth rates assumed by AAI for the 2<sup>nd</sup> control period

YEAR	Passenger			Air Traffic Movements (ATM)		
	Domestic	International	Combined	Domestic	International	Combined
2016-17	18.0 %	6.0 %	14.2 %	15.0 %	4.0 %	11.9 %
2017-18	10.0 %	4.0 %	8.2 %	7.0 %	3.0 %	5.9 %
2018-19	10.0 %	4.0 %	8.3 %	7.0 %	3.0 %	6.0 %
2019-20	10.0 %	4.0 %	8.4 %	7.0 %	3.0 %	6.0 %
2020-21	10.0 %	4.0 %	8.4 %	7.0 %	3.0 %	6.0 %

6.2. AAI submitted that traffic growth rate for FY 2016-17 is based on extrapolation of actual traffic data from April, 2016 to February, 2017.

6.3. As part of clarifications provided by AAI dated 09.05.2017, AAI has revised the traffic growth rates for FY 2016-17 as per actuals for the year.

### Authority's Examination

6.4. The Authority observed that the actual traffic data is available for FY 2016-17 for CIA. Accordingly, AAI submitted that traffic growth rate for FY 2016-17 can be revised by the Authority based on actual traffic during FY 2016-17. The Authority had proposed to revise traffic growth rates for FY 2016-17 as per Table 27. Further, the Authority had proposed to consider the actual traffic data available till December 2017 in public domain on AAI website and extrapolate it for remaining 3 months of FY 2017-18 to determine the traffic growth for FY 2017-18 which has been shown in Table 27.

6.5. The Authority calculated CAGR (Compounded Annual Growth Rate) for ATM and passenger traffic from FY 2010-11 to FY 2015-16 (5 year CAGR) and from FY 2005-06 to FY 2015-16 (10 year CAGR) for CIA. The details have been provided in table below:

Table 26 - CAGR for Traffic at CIA

	Growth rates as per AAI (FY18 to FY21)	10 Year CAGR (FY06 to FY16)	5 Year CAGR (FY11 to FY16)
<b>Passenger</b>			
Domestic	10.0%	9.5%	5.8%
International	4.0%	6.5%	2.8%



	Growth rates as per AAI (FY18 to FY21)	10 Year CAGR (FY06 to FY16)	5 Year CAGR (FY11 to FY16)
<b>Passenger</b>			
<b>ATM</b>			
Domestic	7.0%	6.5%	2.7%
International	3.0%	5.3%	1.9%

6.6. After evaluation of 5 and 10 year CAGR of traffic, the Authority is of the view that 10 years CAGR provides more realistic traffic growth rates for future projections of international passenger and ATM traffic. Hence, the Authority had proposed to adopt growth rates for international passenger and ATM traffic from FY 2018-19 to FY 2020-21 based on 10 years CAGR.

6.7. The Authority had proposed to consider the growth rate as submitted by AAI for domestic passenger and ATM traffic.

Table 27 - Traffic growth rates and Traffic as considered by Authority for the 2<sup>nd</sup> control period

YEAR	Passenger			Air Traffic Movements (ATM)		
	Domestic	International	Combined	Domestic	International	Combined
<b>Growth Rates</b>						
2016-17	27.2%	6.8%	20.7%	24.0%	3.1%	18.1%
2017-18	11.2%	3.8%	9.1%	2.7%	1.4%	2.4%
2018-19	10.0%	6.5%	9.0%	7.0%	5.3%	6.6%
2019-20	10.0%	6.5%	9.1%	7.0%	5.3%	6.6%
2020-21	10.0%	6.5%	9.1%	7.0%	5.3%	6.6%
<b>Traffic</b>						
2016-17	13,153,967	5,208,248	18,362,215	111,331	36,436	147,767
2017-18	14,626,758	5,408,155	20,034,914	114,351	36,931	151,283
2018-19	16,089,434	5,757,805	21,847,240	122,356	38,877	161,233
2019-20	17,698,378	6,130,061	23,828,439	130,921	40,926	171,847
2020-21	19,468,216	6,526,384	25,994,599	140,085	43,083	183,168

6.8. The Authority had proposed to true-up traffic as per actual growth achieved during the current control period at the time of determination of tariff for 3<sup>rd</sup> control period as explained in earlier orders of the Authority.

6.9. Based on the material before it and its analysis, the Authority proposed the following:



6.9.1. To consider the ATM and passenger traffic as per Table 27.

6.9.2. To true up the traffic volume (ATM and Passengers) based on actual traffic in 2nd control period while determining tariffs for the 3rd control period.

***Stakeholders' comments and Authority's examination***

***Comments from IATA***

6.10. IATA submitted that while it is appealing to use historic average growth to forecast the future, we do believe that traffic forecasts should be based on a combination of top-down analysis (i.e. econometric model, which usually links economic development with growth) and bottom-up analysis (i.e. individual airline expectations). Therefore, AERA may wish to undertake a more in-depth analysis on traffic forecast. In any case, given the large scale variations in traffic, there may be merit in some form of truing up (though taking into account that truing up reduces the risk for an airport, and therefore that lower risk should be reflected via a lower cost of capital).

***AAI's submission to IATA's comments***

6.11. AAI submitted that AERA in the Consultation paper has considered 10 years CAGR from 2005-06 to 2015-16 in calculating future projection of ATM and Passenger. AAI added that it has revised the projection for Domestic and International PAX & ATM for the FY 2018-19 to 2020-21 as per CAGR of past 10 years from FY 2007-08 to FY 2017-18 (excluding RCS Flights & Passenger) which is more relevant.

***Authority's examination of IATA's comments and AAI's submission to IATA's comments***

6.12. The Authority has given careful consideration to IATA's comments on determining the traffic forecast based on econometric modelling. The Authority understands the limitations of the traffic forecast, justified only on the basis of historical growth rates but the Authority is also aware of the shortcomings in traffic forecasting on the basis of econometric modelling. In case the airport or airline has made any study on the traffic forecast at the airport, the Authority would request them to submit these studies to the Authority to take a view on them. In the absence of such studies or forecast by airline/airports, the Authority has adopted the historical growth rates. Since the Authority



decides to true-up traffic forecasts based on actuals, the impact due to change in traffic projections would be adjusted in the subsequent control period.

***AAI's submission on Traffic Forecast***

6.13. AAI submitted that AERA in the consultation paper has considered 10 years CAGR from 2005-06 to 2015-16 in calculating future projection of ATM and Passenger. AERA has also considered actual growth in ATM and pax for FY 16-17 and FY 17-18 upto December 2017 for future projection. AAI proposes to revise the projection for domestic and international pax and ATM for the FY 2018-19 to FY 2020-21 as per CAGR of past 10 years from FY 2007-08 to FY 2017-18 (excluding RCS Flights and passenger).

***Authority's examination of AAI's submission***

6.14. The Authority has noted AAI's submission on traffic forecast. The Authority in the consultation paper has considered traffic projections for domestic pax and ATM based on AAI's growth rates and CAGR of 10 years for international pax and ATM growth rates. The Authority notes that the tariffs at CIA would reduce significantly for the remaining years of the control period which may provide a thrust for increase in traffic. Hence, the Authority decides to consider traffic growth rates as per Table 27 for 2<sup>nd</sup> control period.

**Decision No. 3. Traffic Forecast**

- 3.a The Authority decides to consider the ATM and passenger traffic as per Table 27.
- 3.b The Authority decides to true up the traffic volume (ATM and Passengers) based on actual traffic in 2<sup>nd</sup> control period while determining tariffs for the 3<sup>rd</sup> control period.

**AERA**



## 7. Allocation of Assets (Aeronautical and Non-Aeronautical)

7.1. Under Hybrid Till, only aeronautical assets are included as part of the Regulatory Asset Base. As a result of the shift from Single Till to Hybrid Till at the end of 1<sup>st</sup> control period, the assets need to be segregated and opening RAB for 2<sup>nd</sup> control period needs to be recalculated.

7.2. For the allocation of assets between aeronautical and non-aeronautical services, AAI had divided assets into aeronautical, non-aeronautical, cargo and common components. Common components have been further segregated into aeronautical, non-aeronautical and cargo assets by applying one of the following:

7.2.1. Terminal Area Ratio - ratio of aeronautical area to non-aeronautical area (applied for Terminal related assets)

7.2.2. Employee Ratio - 87.9% share of staff providing aeronautical services (827 employees), 1.5% share of staff providing non-aeronautical services (14 employees) and 10.6% share of staff providing cargo services (100 employees) (applied to employee related assets such as computer, furniture and fixtures, etc.)

7.2.3. Vehicle Ratio – 70.9% share of vehicles providing aeronautical services (55 vehicles), 1.3% share of vehicles providing non-aeronautical services (1 vehicle) and 27.8% share of vehicles providing cargo services (22 vehicles) (applied to vehicle related assets)

7.2.4. Quarter ratio for residential building – Based on employees allotted quarters (10.8%, 8.9% and 80.3% for cargo, non-aero and aeronautical components respectively)

7.3. The allocation of gross block of assets as on 01.04.2016 as submitted by AAI is given in the table below:



Table 28 – Allocation of gross block of assets as on 01.04.2016 between aeronautical and non-aeronautical services as submitted by AAI

Sr. No.	Assets	Aero Assets (₹ crore)	Total Assets (₹ crore)	% Aero
1	Land	6.9	6.9	100%
2	Runways, Taxiways, Aprons	649.1	649.1	100%
3	Roads, Bridges & culvert	74.5	75.5	99%
4	Terminal/Other Buildings	1145.6	1232.5	93%
5	Cargo Building	12.9	64.9	20%
6	Temporary Buildings	0.9	0.9	100%
7	Building – Residential	4.8	4.8	100%
8	Security Fencing	2.6	2.6	100%
9	Boundary wall (operational)	30.1	30.1	100%
10	Other Buildings - Unclassified	37.4	39.2	95%
11	Computer, IT Hardware & Access.	14.4	14.7	98%
12	Computer Software	1.1	1.9	59%
13	Plant and Machinery	206.3	207.6	99%
14	Tools & Equipments	16.5	18.1	91%
15	Office Furniture & Fixtures	5.5	5.5	100%
16	Other Vehicles	4.1	4.1	100%
17	Electrical Installations	624.7	664.9	94%
18	Office Equipments	0.9	0.9	100%
19	Furniture & Fixtures	18.2	18.8	97%
20	X-Ray Baggage	16.1	36.4	44%
21	CFT	23.5	23.5	100%
	<b>Total</b>	<b>2,896.0</b>	<b>3,102.8</b>	<b>93%</b>

#### Authority's Examination

7.4. AAI submitted the workings for the calculation of aeronautical area to non-aeronautical area ratio vide letter dated 26.08.2017 and 08.11.2017.

Table 29 – Workings of Terminal Area Ratio calculation as submitted by AAI for FY 2015-16

Particulars	Total Area (sq. m.)	Area in use (sq. m.) (A)	Total commercial area (sq. m.) (B)	Non-aero to area in use ratio (%) (B/A)
Terminal 1	73,714	73,714	3,014	4.1%
Terminal 2	18,858	3,772	0	0.0%
Terminal 3	60,848	48,678	1,666	3.4%
Terminal 4	64,204	36,526	2,556	7.0%
<b>Total</b>	<b>217,624</b>	<b>162,690</b>	<b>7,236</b>	<b>4.4%</b>



- 7.5. The Authority observed that the percentage of non-aeronautical area is lower compared to similar airports. The Authority is fully aware of the constraints in increasing the non-aeronautical area at CIA due to lack of depth in the terminal building. However, in a metro city such as Chennai, there is sufficient scope to allocate more space for non-aeronautical services at the airport. Hence, the Authority had proposed to adopt 92.5% as aeronautical area for asset allocation of Terminal related assets to encourage growth of NAR which would cross-subsidize aeronautical charges.
- 7.6. Specific assets under Terminal Building and Other Building related to the Terminal Building have been considered as aeronautical by AAI. The Authority had proposed to allocate these assets in the ratio of 92.5% to 7.5%.
- 7.7. Specific assets under terminal building related to shops and food court have been considered as aeronautical by AAI. The Authority had proposed to consider these assets as non-aeronautical assets.
- 7.8. Specific assets under Other Building and Office Furniture & Fixtures related to school have been considered by AAI as aeronautical assets. The Authority had proposed to allocate these assets based on employee ratio.
- 7.9. The Authority had proposed to consider car park related assets as 100% non-aeronautical assets.
- 7.10. The Authority had proposed to exclude the cost of hangars from aeronautical RAB.
- 7.11. As part of the clarifications provided dated 26.08.2017 and 12.10.2017, AAI submitted that all cargo assets, expenses and income have not been considered in the 2nd control period. As per AAI clarifications, AAI cargo logistics and allied services company limited (AAICLAS) is managing cargo activities at CIA, which is 100% subsidiary of AAI. AAICLAS would file cargo MYTP of CIA separately. As per AAI's submission dated 12.10.2017, the Authority had noted that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for CIA. Hence, the Authority decides to include Cargo assets, revenues and operational expenditure from 01.04.2016 till 31.03.2017 and decides to exclude them from 01.04.2017 till 31.03.2021 while determination of tariff in the second control period. Further, the Authority had noted that there is no



clarity on the transfer of cargo assets to AAICLAS as of now. The Authority will take a view on this while truing up in the 3rd control period based on the decisions taken by the AAI.

7.12. The asset allocation proposed by Authority is tabulated below:

Table 30 – Change in allocation of gross block of assets existing as on 01.04.2016 between aeronautical and non-aeronautical services excluding cargo assets decided by the Authority

Sr. No.	Particulars	Aero Assets	Justification
1.	Runways, Taxiways, Aprons	96.8%	Total assets are ₹ 649.1 crores out of which ₹ 628.5 crores are purely aeronautical assets. Non-aeronautical assets related to hangars (₹ 20.2 crores) and Cargo related assets (₹ 0.3 crores) have been excluded from aeronautical RAB
2.	Roads bridges & culvert	96.4%	Total assets are ₹ 75.5 crores out of which ₹ 72.7 crores are purely aeronautical assets. Cargo related assets (₹ 1.5 crores) and car park (₹ 1.3 crores) have been excluded from aeronautical RAB.
3.	Terminal building	89.8%	Total assets are ₹ 1,174.5 crores out of which ₹ 200.4 crores are purely aeronautical assets and common assets are ₹ 923.1 crores which have been allocated based on 92.5% ratio towards aeronautical component based on terminal building area for terminal related assets. Cargo related assets (₹ 50.0 crores) and non-aeronautical assets (₹ 1.0 crore) have been excluded from aeronautical RAB.
4.	Cargo building	0.0%	Cargo assets of ₹ 64.9 crores are have been excluded from aeronautical RAB.
5.	Building Temporary	92.6%	Total assets are ₹ 0.9 crores out of which ₹ 0.8 crores are purely aeronautical assets. Car park related assets (₹ 0.1 crores) have been considered as non-aeronautical.
6.	Boundary Wall (Operational)	99.0%	Total assets are ₹ 30.1 crores out of which ₹ 29.8 crores are purely aeronautical assets. Cargo related assets (₹ 0.3 crores) have been excluded from aeronautical RAB.
7.	Other Buildings - Unclassified	92.6%	Total assets are ₹ 39.2 crores out of which ₹ 35.8 crores are purely aeronautical assets and common assets are ₹ 0.6 crores which have



Sr. No.	Particulars	Aero Assets	Justification
			been allocated based on employee ratio. Cargo related assets (₹ 1.8 crores) and car park and hangar related assets (₹ 1.0 crores) have been excluded from aeronautical RAB.
8.	Computer, IT, Hardware and access	92.1%	Total assets are ₹ 14.7 crores out of which ₹ 12.2 crores are purely aeronautical assets and common assets are ₹ 1.6 crores which have been allocated based on employee ratio. Cargo related assets (₹ 1.0 crores) have been excluded from aeronautical RAB.
9.	Plant & machinery	92.9%	Total assets are ₹ 203.8 crores out of which ₹ 189.2 crores are purely aeronautical assets. Cargo related assets (₹ 14.5 crores) have been excluded from aeronautical RAB.
10.	Tools & Equipment	84.7%	Total assets are ₹ 18.1 crores out of which ₹ 15.4 crores are purely aeronautical assets and common assets are ₹ 0.01 crores which have been allocated based on vehicle ratio. Cargo related assets (₹ 2.8 crores) have been excluded from aeronautical RAB.
11.	Electrical installations	92.0%	Total assets are ₹ 651.7 crores out of which ₹ 597.9 crores are purely aeronautical assets and common assets are ₹ 1.6 crores which have been allocated based on terminal building and quarter ratio. Cargo related assets (₹ 49.3 crores) and non-aeronautical assets (₹ 3.0 crores) have been excluded from aeronautical RAB.
12.	Furniture & fixture	91.3%	Total assets are ₹ 18.8 crores out of which ₹ 13.5 crores are purely aeronautical assets and common assets are ₹ 4.0 crores which have been allocated based on employee, terminal building and quarter ratio. Cargo related assets (₹ 1.2 crores) and non-aeronautical assets (₹ 0.1 crores) have been excluded from aeronautical RAB.
13.	X-Ray Baggage	44.1%	Total assets are ₹ 36.4 crores out of which ₹ 16.1 crores are purely airport related aeronautical assets. Cargo related assets (₹ 20.3 crores) have been excluded from aeronautical RAB.



7.13. The cost of land has been excluded from the RAB of 2<sup>nd</sup> control period as in para 5.15.

7.14. The allocation of gross block of assets as on 01.04.2016 as considered by the Authority based on revised asset allocation is given in the table below. As per para 7.11, for the year FY 2016-17, the RAB includes the cargo assets (column % aero including cargo). For the remainder of second control period, cargo assets have been excluded (column % aero excluding cargo).

Table 31 – Allocation of gross block of assets as on 01.04.2016 between aeronautical and non-aeronautical services as considered by the Authority

Sr. No.	Assets	Total Assets (₹ cr.)	Aero Assets including cargo (₹ cr.)	% Aero including cargo	Aero Assets excluding cargo (₹ cr.)	% Aero excluding cargo
1	Land	0.0	0.0	0.0%	0.0	-
2	Runways, Taxiways, Aprons	649.1	628.8	96.9%	628.5	96.8%
3	Roads, Bridges & culvert	75.5	74.2	98.3%	72.7	96.4%
4	Terminal/Other Buildings	1,174.5	1,104.3	94.0%	1,054.3	89.8%
5	Cargo Building	64.9	64.9	100.0%	0.0	0.0%
6	Temporary Buildings	0.9	0.8	92.6%	0.8	92.6%
7	Building - Residential	4.8	4.8	100.0%	4.8	100.0%
8	Security Fencing	2.6	2.5	97.5%	2.5	96.3%
9	Boundary wall (operational)	30.1	30.1	100.0%	29.8	99.0%
10	Other Buildings - Unclassified	39.2	38.2	97.4%	36.3	92.6%
11	Computer, IT Hardware & Access.	14.7	14.7	99.8%	13.6	92.1%
12	Computer Software	1.9	1.9	99.1%	1.1	58.7%
13	Plant and Machinery	203.8	203.8	100.0%	189.2	92.9%



Sr. No.	Assets	Total Assets (₹ cr.)	Aero Assets including cargo (₹ cr.)	% Aero including cargo	Aero Assets excluding cargo (₹ cr.)	% Aero excluding cargo
14	Tools & Equipments	18.1	18.1	100.0%	15.4	84.7%
15	Office Furniture & Fixtures	5.5	5.5	100.0%	4.7	86.3%
16	Other Vehicles	4.1	4.1	100.0%	4.1	99.7%
17	Electrical Installations	651.7	648.6	99.5%	599.3	92.0%
18	Office Equipments	0.9	0.9	100.0%	0.9	99.5%
19	Furniture & Fixtures	18.8	18.3	97.8%	17.1	91.3%
20	X-Ray Baggage	36.4	36.4	100.0%	16.1	44.1%
21	CFT	23.5	23.5	100.0%	23.5	100.0%
22	Boundary wall (residential)	0.0	0.0	0.0%	0.0	-
23	<b>Total</b>	<b>3,020.9</b>	<b>2,924.5</b>	<b>96.8%</b>	<b>2,714.7</b>	<b>89.9%</b>

7.15. Based on the material before it and its analysis, the Authority proposed to allocate assets as on 01.04.2016 between aeronautical and non-aeronautical assets as detailed in Table 31.

#### **Stakeholders' comments and Authority's examination**

##### **Comments from IATA**

7.16. On asset allocation, IATA submitted as follows:

7.16.1. We note that AERA is proposing to adopt a 92.5% allocation of terminal assets to the aeronautical area (instead of AAI's proposed 95.6%). While we agree that adjustment goes in the right direction, we still believe that the percentage allocated to aviation is too high. As mentioned in previous submissions, there needs to be a review on the methodology for allocating common assets at airports.

7.16.2. We would appreciate for AERA to provide a calculation of the return that



would be achieved in the non-aeronautical activities with the proposed cost allocation, as we believe it would be extraordinarily high, and therefore provide a clear indication that the allocation methodology needs to be reviewed.

7.16.3. We would appreciate for AERA to provide more information in relation to Cargo, and why it should be excluded from the asset base, and whether there would be a difference in the regulatory treatment of this activity if there was a separate MYTP.

7.17. On the basis of the comments stated on proposal 3, we believe the aeronautical RAB to be overestimated, and request AERA to review its cost allocation methodology.

7.18. IATA submitted that the allocation of asset to aeronautical at 92.5% can still be considered high. We would recommend AERA to consider conducting on-site assessment or evaluation to get a more accurate indication of assets and resources allocation between aeronautical and non-aeronautical activities. A proper cost allocation methodology could be used to partially correct the excessive profits issue highlighted in the previous paragraph.

#### **Comments from FIA**

7.19. On non-consideration of Cargo Revenues, FIA submitted that in para 3.3 of the CP, it is mentioned that AAI has not considered cargo related revenues, expenses and assets in the MYTP for the 2nd control period and has also submitted that AAI Cargo Logistics and Allied Services Company Limited (AAICLAS) would file proposal for cargo tariff for 2nd control period. It is further stated that the Authority has adopted the model proposed by AAI based on AERA methodology as on 18.04.2017 and considered subsequent submissions for this consultation paper. FIA hereby submits that, without prejudice to the right to review additional submissions of AAI, the AERA methodology dated 18.04.2017 prima facie, needs to be reviewed/revisited in light of the figures under table 5 (Aeronautical Revenue earned for the 1st control period), which provides that the cargo revenue accounted for almost twenty five percent (25) % of the total revenue during the first control period. FIA would like the Authority to kindly note that



'Cargo revenues' comes under the category of Aeronautical Revenues and accordingly used for the purposes of determination of Aeronautical Tariffs. Thus, non-consideration of the cargo revenue results into incorrect determination of Aeronautical Revenue which forms one of basis for calculating the Aeronautical Tariffs. Thus, FIA hereby submits that keeping in view section 2 (v) of AERA Act, which provides that 'Aeronautical Service' includes the service for 'the cargo facility at an airport', the Cargo Revenues constituting almost 25% of the Aeronautical Revenues must be duly taken into account for calculation for Aeronautical Tariffs.

***AAI's submission to IATA's comments***

7.20. AAI submitted that the allocation of terminal building ratio to 92.5% as Aeronautical Asset has been adopted by AERA whereas AAI ratio was 95% pertains to Aeronautical Assets. Further, AAI submitted that cargo has not been considered as part Tariff proposal w.e.f. 01.04.2017. AAI added that tariff proposal for cargo would be separately filed by AAICLAS, a wholly owned subsidiary of AAI.

***AAI's submission to FIA's comments***

7.21. In response to FIA's comments on cargo revenues, AAI submitted that cargo tariff would be filed by AAICLAS for the control period 01/4/2017 to 31/3/2021. AAI added that the reason for not consideration of cargo revenue, expenses and assets are that, AAICLAS wholly owned subsidiary of AAI would file cargo MYTP separately to AERA for determination of Tariff for the second control period.

***Authority's examination of IATA's and FIA's comments and AAI's submission on IATA's and FIA's comments***

7.22. The Authority has noted comments from IATA related to asset allocation between aeronautical and non-aeronautical assets for CIA and returns on non-aeronautical assets. The Authority has provided the rationale for allocating the assets and O&M expenditure into aeronautical and non-aeronautical components in the Consultation Paper. The Authority is fully aware of the constraints in increasing the non-aeronautical area at CIA due to lack of depth in the terminal building. However, in a metro airport



such as Chennai, there is scope to allocate more space for non-aeronautical services. Hence, the Authority decides to adopt 92.5% as aeronautical area for asset allocation of Terminal related assets to encourage growth of NAR which would cross-subsidize aeronautical charges. In future, the Authority would expect AAI to allocate more terminal building area for non-aeronautical services and consider a revision while truing-up. .

7.23. The Authority has noted IATA's and FIA's comments on the cargo revenues. AAI has clarified in their response dated 26.08.2017 and 12.10.2017 that AAICLAS would file separate tariff proposal for cargo. Further, as per AAI's submission dated 12.10.2017, the Authority had noted that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for CIA. Since, AAI is not directly undertaking the cargo activities from FY 2017-18, the Authority decides to include Cargo assets, revenues and operational expenditure from 01.04.2016 till 31.03.2017 and decides to exclude them from 01.04.2017 till 31.03.2021 while determination of tariff in the second control period. To clarify, the Authority has not only excluded cargo revenues as per FIA's comments but also the corresponding cargo assets and operational expenditure for cargo activities from 01.04.2017 onwards. These would be considered in the separate tariff proposal for cargo activities from AAICLAS and while truing-up of the 2nd control period of CIA. To address IATA's comments, cargo services at CIA would continue to be regulated by the Authority as per the applicable guidelines but would be filed as a separate MYTP by AAICLAS.

7.24. Since there is no clarity as on date regarding the revenue sharing mechanism between AAI and AAICLAS, the Authority has decided not to consider the potential revenue from cargo operations at this moment. The Authority will take a view on this while truing up in the 3rd control period based on the decisions taken by the AAI. The Authority may also make necessary assumptions regarding the revenue that should accrue to AAI in case the revenue share arrangement does not truly reflect the arms-length transaction between AAI and its subsidiary. This is consistent with the Authority's view taken in the case of Lucknow Airport (CCSIA) Tariff Order No. 37/ 2017-



18 dated 16.02.2018.

**Decision No. 4. Allocation of assets between Aeronautical and Non-aeronautical services**

4.a. The Authority decides the allocation of assets as on 1<sup>st</sup> April 2016 between aeronautical and non-aeronautical assets as detailed in Table 31.



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AERA

## 8. Opening Regulatory Asset Base for Second control period

8.1. Opening RAB for 2<sup>nd</sup> control period under Hybrid Till as per AAI submission dated 06.03.2017 is ₹ 1,501.9 crores

Table 32 - Calculation of opening RAB as on 01.04.2016 as per AAI submission – Hybrid Till

S. No.	Particulars	Amount (₹ crore)
1	Original Cost of Airport Aeronautical Assets excluding ANS related assets as on 01.04.2011	702.9
2	Aeronautical asset addition during the 1 <sup>st</sup> control period	2,193.1
3	<b>Cost of Aeronautical Assets [(1)+(2)] as on 01.04.2016</b>	<b>2,896.0</b>
4	Accumulated Depreciation as on 01.04.2016	1,394.1
5	<b>Opening RAB[(3)-(4)] as on 01.04.2016</b>	<b>1,501.9</b>

8.2. The Authority decides to adopt depreciation rates as detailed in para 5.12 and para 10.12 for calculating RAB for 2<sup>nd</sup> control period.

8.3. The Authority decides to allocate the assets between aeronautical and non-aeronautical assets as detailed in Table 31.

8.4. Based on revised depreciation rates and revised asset allocation, the opening RAB for 2<sup>nd</sup> control period considered by the Authority under Hybrid Till is ₹ 2,061.5 crores.

Table 33 - Calculation of opening RAB as on 1<sup>st</sup> April 2016 as per the Authority – Hybrid Till

S. No.	Particulars	Amount (₹ crore)
1	Original Cost of Airport Aeronautical Assets excluding ANS related assets as on 01.04.2011	753.1
2	Aeronautical asset addition during the 1 <sup>st</sup> control period	2,171.5
3	<b>Cost of Aeronautical Assets [(1)+(2)] as on 01.04.2016</b>	<b>2,924.5</b>
4	Accumulated Depreciation as on 01.04.2016	863.0
5	<b>Opening RAB[(3)-(4)] as on 01.04.2016</b>	<b>2,061.5</b>

## Decision No. 5. Opening Regulatory Asset Base for the 2<sup>nd</sup> control period

5.a. The Authority decides to consider the opening regulatory base for the 2<sup>nd</sup> control period under Hybrid Till as ₹ 2,061.5 crores.



## 9. Capital Expenditure for Second control period

9.1. AAI has in their submissions dated 06.03.2017 submitted aeronautical capital expenditure of ₹ 2796.5 crores for the 2<sup>nd</sup> control period which was revised to ₹ 1679.8 crores during submissions dated 09.05.2017, 29.06.2017, 12.10.2017, 08.11.2017, 08.12.2017 and 11.01.2018 as shown below:

Table 34 – Aeronautical assets to be capitalized at CIA for 2<sup>nd</sup> control period as per AAI

S.N.	Particulars (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
1	Runways, Taxiways and Aprons	11.8	64.0	37.3	0.0	0.0
2	Terminal/Other Buildings	12.0	32.7	7.0	0.0	1267.1
3	Temporary Buildings	0.2	0.0	0.0	0.0	0.0
4	Roads, Bridges & culvert	5.2	10.3	0.0	0.0	0.0
5	Boundary wall (operational)	0.5	1.6	2.5	0.0	0.0
6	Boundary wall (residential)	0.4	0.0	0.0	0.0	0.0
7	Plant & Machinery	0.5	0.4	0.0	0.0	0.0
8	Tools and Equipments	0.0	0.0	0.0	0.0	0.0
9	Electrical Installations	10.9	51.4	10.0	0.0	1267.1
10	Furniture & Fixtures	0.0	0.5	0.0	0.0	0.0
11	Computer, IT Hardware & Access.	0.0	2.0	0.1	0.0	0.0
12	Computer Software	0.0	1.0	0.0	0.0	0.0
	<b>Total (₹ 2796.5 crores)</b>	<b>41.6</b>	<b>163.8</b>	<b>56.9</b>	<b>0.0</b>	<b>2,534.2</b>
<b>Revised capital expenditure submitted by AAI dated 09.05.2017, 29.06.2017, 12.10.2017, 08.11.2017, 08.12.2017 and 11.01.2018</b>						
1	Runways, Taxiways and Aprons	12.7	24.0	0.3	134.6	0.0
2	Terminal/Other Buildings	12.8	29.4	7.0	0.0	633.1
3	Temporary Buildings	0.0	0.0	0.0	0.0	0.0
4	Roads, Bridges & culvert	2.0	10.3	0.0	85.6	0.0
5	Boundary wall (operational)	0.0	1.6	2.5	0.0	0.0
6	Boundary wall (residential)	0.0	0.0	0.0	0.0	0.0
7	Plant & Machinery	0.0	0.0	0.0	0.0	0.0
8	Tools and Equipments	21.9	0.0	0.0	0.0	0.0
9	Electrical Installations	2.0	51.4	10.0	0.0	633.1
10	Furniture & Fixtures	0.3	0.5	0.0	0.0	0.0
11	Computer, IT Hardware & Access.	0.1	2.0	0.1	0.0	0.0
12	Computer Software	0.3	1.0	0.0	0.0	0.0
13	Other Vehicles	0.9	0.0	0.0	0.0	0.0
14	Office Equipments	0.1	0.0	0.0	0.0	0.0
15	CFT	0.3	0.0	0.0	0.0	0.0
	<b>Total (₹ 1679.8 crores)</b>	<b>53.4</b>	<b>120.2</b>	<b>19.9</b>	<b>220.2</b>	<b>1266.1</b>



9.2. AAI has submitted following details of the proposed capital works to be undertaken during the control period:

9.2.1. Straightening / strengthening of 'B' Taxi from "C" Taxi to Runway 30 (₹ 33.1 crores under Runways, Taxiways & Apron in FY 2019-20)

In the portion of existing Apron, in front of Old terminal building adjacent to Cargo Terminal, the Centre line of Parallel Taxi track to be shifted to make it 182.5m by marking edge line of 23m wide realigned B-taxiway. The existing apron in front of Old terminal building adjacent to Cargo Terminal was initially designed for code-E type of aircraft operation, however the same may be strengthened for code-E type of aircraft, if required after ascertaining the strength.

Additional construction of 23m wide Parallel Taxi track with 10.5m wide shoulders on either side suitable for Code-E type of aircraft in between the existing Apron end and Secondary Runway 12/30.

Affected portion of 7.5m wide Runway 12/30 shoulder has to be strengthened or reconstructed a per site condition to facilitate construction of B-taxi track connected to Runway 12/30 suitable for Code-E type of aircrafts (B-747-400, B-777-300ER).

9.2.2. Construction 'N' taxi track (balance portion) connecting Runway 07-25 (₹ 9.9 crores under Runways, Taxiways & Apron in FY 2018-19)

Construction of 462m x 25m wide part link taxi track-N between Runway 07/25 and parallel taxi track-R and beyond, with fillets and 9.5m wide shoulder on both the sides.

9.2.3. Construction 'R' taxi track left out portion connecting Runway 12-30 (₹ 25.2 crores under Runways, Taxiways & Apron in FY 2018-19)

Construction of 25m wide part parallel taxi track-R (886m west of taxi-track L1 and 704m between Q-Taxi-track and Runway 12/30) with fillets and 9.5m wide shoulder on both the sides to make a total pavement of 44m suitable for code 'E' aircraft operations.



9.2.4. Connectivity to metro rail to city side and provision of walkators at CIA (₹ 85.6 crores under Roads, bridges and culverts in FY 2019-20)

Chennai Metro Rail work is being commissioned at Chennai Airport. Presently the passengers are coming out of Domestic Terminal and proceeding to International Terminal which is around 700 metres away/ vice versa. With this connectivity the passengers will be able to use the walkalator and this will be connected to Chennai Metro Rail also. The Board approved the proposal of connectivity to Metro Rail to city side and provision of walkalators at Chennai Airport, Chennai at an estimated cost of ₹ 85.6 crores.

9.2.5. RET-I at a distance of 1831 m from the threshold of Runway 07 and RET25\_1 at a distance of 1908m from the threshold of Runway 25 (₹ 64.5 crores under Runways, Taxiways & Apron in FY 2019-20)

Chennai Airport having land area of approx. 1301 acres has two Runways. Runway 07-25, 3658m x 45m suitable for Code E type of aircraft and Runway 12-30, 2680m x 45m is suitable for Code C type of aircraft.

The new International Terminal building (T4) having an area of 60528 sq. m is capable to handle 2300 passengers (4mppa), new Domestic Terminal building (T1) having an area of 72614 sq. m. is capable to handle 3300 passengers (10mppa). The old International Terminal building having an area of 42300 sq. m. and old Domestic Terminal building having an area of 19250 sq. m. are proposed to be reconstructed to enhance the total passenger handling capacity from 23 mppa to 30 mppa and beyond.

Chennai airport has a total of 86 nos. aircraft parking bays. Apron in front of Terminal building has 18 nos. in-contact stands and 15 remote bays suitable for B-747/ A-320, A-300, A-321 type of aircrafts. In addition to the above Chennai airport has 43 nos. remote parking bays in between the two cross runways suitable for parking B-747, A-321 and 5 nos. parking bays in front of old terminal building near cargo complex.

There are 5 link taxi tracks connecting Main Runway 07/25 and 'B' parallel



Taxiway towards passenger terminal buildings.

Presently, total aircraft movements per week are 2464 at Chennai Airport and the existing Runway capacity is 32 aircrafts movements per hour for Runway 07-25 as declared vide ATM circular no. AAI/ATM/OPS/20-06/2017 dated 09.02.2017.

In order to match terminal building capacity, AAI had undertaken airside capacity enhancement study at Chennai Airport. The scope of work for straightening of the Taxi-track was issued vide letter dated 28.10.2016 which mentioned full length straightening of B Taxi-track for code-E operations. The provision of parallel taxi-track at 182.5m does not provide holding point for Code-E aircraft and smooth operation on parallel taxi-track. Since the existing 8-taxi-track in front of terminal buildings is at a distance of 206m which allows the holding point which is being practised at Chennai airport, the amendments were sought in the approved SOW.

To enhance the runway capacity of main RWY 07/25, Directorate of ATM proposed the following based upon TAAM study:

- 1) RET - 1 at a distance of 1831Mts. from the threshold of R/w 07
- 2) RET - 3 at a distance of 2390Mts. from the threshold of R/w 07
- 3) RET25\_1 at a distance of 1908Mts. from the threshold of R/w 25

Construction of 23m wide Rapid Exit Taxiway (RET-1) with fillets and 10.5m wide shoulder on both the sides at a distance of 1831m from the Runway threshold 07 suitable for Group C type of aircraft (8-747-SP/ 8-767/A-300/A-320/A-330)

Construction of 23m wide Rapid Exit Taxiway (RET-3) with fillets and 10.5m wide shoulder on both the sides at a distance of 2390m from the Runway threshold 07 suitable for Group D type of aircraft (8-747-4001B-777-300 ER/A-340/MD-11/DC- 10/IL-96)

Construction of 23m wide Rapid Exit Taxiway (RET-25\_1) with fillets and 10.5m wide shoulder on both the sides at a distance of 1908m from the Runway



threshold 25 suitable for Group C type of aircraft (B-747-SP/ B-767/A-300/A-320/A-330).

9.2.6. Construction of terminal building - Phase II (Phase 1 - ₹ 1,315 crores under Terminal/ Other Building and Electrical Installations in FY 2020-21)

Chennai Airport which is fourth largest airport in the country which is managed by Airports Authority of India. The land in possession by AAI is around 1326 acres. AAI took up modernization of Chennai Airport during the year 2008 at the cost of ₹ 2,015 crores and completed the phase-I modernization during the year 2012. The master plan for the modernization of Chennai Airport is developed to cater for passenger capacity of 23 million. The present traffic handled by Chennai Airport is 14.30 million during the year 2014-15. Considering present growth of traffic the Terminal Building and airside capacity is likely to saturate by 2024. The phase-1 developmental activities involved were constructed of New Domestic Terminal with a capacity of 10 million, extension of International Terminal with a capacity of 4 million. The balance 6 million and 3 million of domestic and international passengers were slated to be handled by refurbishing of the Old Terminals. The Phase-I development also included extension of secondary runway by 1030 mtrs., construction of bridge across Adyar river, parallel taxi track, augmentation of aprons etc. including all related electro-mechanical units, IT solutions and other airport systems solutions

Considering the rapid growth and to upgrade the facilities further to international standards, AAI decided to go ahead with Phase-II modernization programme. The Phase-II modernization shall include demolition and reconstruction of old domestic terminal, old international terminal, reconstruction of airside corridor for seamless integration, satellite terminal building, augmentation of contact bays, development of multi-level car park, development of integrated common user cargo complex, development of contact bays for category E cargo freighters, etc. AAI has obtained in-principle



approval from Competent Authority.

Construction of centrally air-conditioned Domestic Terminal Building (with area of 60300 sq. m.) and International Terminal Building (with area of 108500 sq. m.) with all modern facilities and amenities, shall be designed for atleast 3000 pax (10 mppa) Domestic and 4000 pax (6 mppa) International passengers at a time with the recommended area specifications and to match the level of service "B" as per IATA recommendations in initial years & finally to match level of service "C" in year of saturation. The building should be provided with aesthetically appealing and soothing interior decoration matching the modern structure. Space planning should ensure that no dead space/ area is created in the Departure area, Arrival area, Security Hold area and Concourse area are to be provided with adequate nos. of toilets for gents, ladies and differently-abled persons along with drinking water facility. Suitable number of ramps to be provided for entry and exit of differently - abled persons in Departure and Arrival area. Provision of battery operated buggies for senior citizens/ differently-abled persons as per requirement. Additional fixtures in the toilet to be provided for arrival passengers.

#### **Authority's Examination**

9.3. The Authority requested AAI to submit the aeronautical capital expenditure incurred in FY 2016-17 and in 2<sup>nd</sup> control period based on actual capital expenditure in FY 2016-17. In response to this, AAI vide submission dated 26.08.2017 provided the revised aeronautical capital expenditure to be incurred in 2<sup>nd</sup> control period. AAI further submitted the revised capital expenditure on 08.11.2017, 08.12.2017 and 11.01.2018. The Authority has accordingly updated the capital expenditure for the 2<sup>nd</sup> control period.

9.4. The Authority noted that AAI has included capital expenditure towards solar power plant (as part of Tools & Equipments ₹ 8.5 crore in FY 2016-17) as 100% aeronautical capital expenditure in the 2<sup>nd</sup> control period. The Authority had proposed to consider the allocation of solar power plant capital expenditure based on 92.5% ratio as



aeronautical capital expenditure (as part of Tools & Equipments ₹ 7.9 crore in FY 2016-17).

- 9.5. The Authority had proposed to consider aeronautical capital expenditure towards ceremonial lounge (₹ 10.0 crores in FY 2017-18), construction of CISF barracks (₹ 4.0 cr. in FY 2017-18) and other capital expenditure in terminal/ other building (₹ 15.4 crores in FY 2017-18) under terminal/ other building as submitted by AAI dated 26.08.2017, 08.11.2017 and 08.12.2017.
- 9.6. The Authority had proposed to consider aeronautical capital expenditure towards re-construction of Taxiway "H" (Phase-I) (₹ 7.0 crores in FY 2017-18), re-construction of T/w "H" (Phase-II) (₹ 5.0 crores in FY 2017-18), re-Construction of dom.& intl bays (₹ 5.0 crores in FY 2017-18), construction of fillet at Taxiway 'F' (₹ 4.0 crores in FY 2017-18), Re-const.'D' Taxitrack under Runway (₹ 3.0 crores in FY 2017-18) under Taxiways and Aprons as submitted by AAI dated 26.08.2017, 08.11.2017 and 08.12.2017.
- 9.7. The Authority had proposed to consider aeronautical capital expenditure towards Connectivity to Metro Rail to city side and provision of walkators at CIA (₹ 85.6 cr. in FY 2019-20) as submitted by AAI dated 26.08.2017, 08.11.2017 and 08.12.2017.
- 9.8. The Authority had proposed to allocate the capital expenditure for providing structural arrangements at roof truss level for supporting the cradle system for façade cleaning at NDTC (T-1) (₹ 5.0 cr. in FY 2020-21) based on 92.5% ratio as aeronautical capital expenditure (₹ 4.6 crore in FY 2020-21 - 50% as part of Terminal/ Other Building and remaining as part of Electrical Installations).
- 9.9. The Authority had proposed to consider aeronautical capital expenditure towards straightening and strengthening of 'B' Taxi from 'C' Taxi to Rwy 30 (₹ 33.1 cr. in FY 2019-20) and cost of balance works for construction of 'N' taxitrack (₹ 4.5 cr. in FY 2019-20) as submitted by AAI dated 26.08.2017, 08.11.2017 and 08.12.2017.
- 9.10. The Authority noted that the total capital expenditure for Construction 'N' Taxitrack (balance portion) connecting Runway 07-25 is ₹ 9.9 crores in FY 2019-20 with total area of 16,500 sq. m. and per sq. m. cost is ₹ 6,000 which is more than normative benchmark of ₹ 4,700 for Runway/taxiway and aprons (excluding earthwork up to



subgrade level).

- 9.11. The Authority noted that the total Construction 'R' taxitrack left out portion connecting Runway 12-30 is ₹ 25.2 crores in FY 2019-20 with total area of 42,000 sq. m. and per sq. m. cost is ₹ 5,998 which is more than normative benchmark of ₹ 4,700 for Runway/taxiway and aprons (excluding earthwork up to subgrade level).
- 9.12. The Authority noted that the total capital expenditure for RET-I and RET25\_1 is ₹ 64.5 crores in FY 2019-20 with total area of 23,500 sq. m. and per sq. m. cost is ₹ 27,447 which is more than normative benchmark of ₹ 4,700 for Runway/taxiway and aprons (excluding earthwork up to subgrade level).
- 9.13. The Authority requested justification from AAI for higher than normative benchmark costs for construction 'N' taxitrack (balance portion) connecting Runway 07-25, construction 'R' taxitrack left out portion connecting Runway 12-30 and RET-I and RET25\_1. AAI, as per the clarification provided dated 08.12.2017, submitted that the reason for higher than normative cost is due to i) labour rates at Chennai (City classification 'A') are 16.42% higher than labour rates at Cochin (City classification B) as per Notification dated 20.04.2017 for example minimum wages of unskilled labour at Chennai is ₹ 536/- per day whereas at Cochin it is ₹ 448/- per day; overall cost impact will be around 5%, ii) raw materials for pavement works like sand, aggregates are costlier in Chennai metro city in comparison to Cochin and iii) the proposed pavement work is to be constructed in operational area of Chennai Airport leads to extra overheads.
- 9.14. The Authority noted that the total capital expenditure for construction of terminal building - Phase II is ₹ 2467 crores. As per the clarification submitted by AAI dated 12.10.2017 and 11.01.2018, the construction of terminal building would be capitalized in two phases – first phase of ₹ 1,315 cr. to be capitalized in May, 2020 and the second phase of ₹ 1,152 cr. to be capitalized in the next control period. The Authority had proposed to consider only first phase of ₹ 1,315 cr. to be capitalized in FY 2020-21.
- 9.15. The Authority noted that the total area of first phase of terminal building is 105,000 sq. m. and per sq. m. cost is ₹ 125,238 which is more than normative benchmark of ₹



65,000 for terminal building.

9.16. The Authority requested justification from AAI for higher than normative benchmark costs for construction of terminal building. AAI, as per the clarification dated 08.12.2017, submitted that the reason for higher than normative cost is due to i) International standard IT and Airport System equipment/ installations/ software for faster check-in, better passenger flow, reduced queue lengths, real-time operational management, innovation i.e. self-bag drop, biometric processing, passenger flow management, dynamic signage, security screening, indoor positioning, beacons, interactive kiosks, electronic gates, greater mobile speeds/5G, airport app, ACDM, more cabling, greater reliance on Wi-Fi, larger communications rooms, more complex system integration etc., ii) High end specification material of international standard are proposed to be used like laminated glass, structural steel, stainless steel railing, decorative false ceiling, insulated roofing etc. iii) Hold Baggage Screening (HBS), with co-ordinated based standard 3 CT machines sourced from seven twin-row check-in islands through a standard 4-level HBS in baggage hall, iv) To achieve GRIHA 4 star rating, GRIHA v2015 reference guide shall be followed for which international standards GRIHA/ LEED rated sanitary/ plumbing appliances, electric appliances, building material for core work and finishing work are proposed which includes high end international standard sanitary fittings, v) The cost of the building also increased due to geographical location of Airport i.e. seismic and coastal design criteria. Excavation for foundation and basement of a height of 9m in a rocky strata needs specialised waterproofing treatment and excavation methodology, and vi) Cost enhancement @ 6.5% p.a. has been considered in cost estimate prepared in April 2017 as per CPWD procedure which was not considered in normative cost determined in year 2014.

9.17. The Authority had proposed to revise the total capital expenditure for construction of terminal building, construction 'N' taxitrack (balance portion) connecting Runway 07-25, construction 'R' taxitrack left out portion connecting Runway 12-30, RET-I and RET25\_1 based on normative benchmarks for FY 2015-16 and increase the benchmarks by WPI of 4.2% per annum till the year of capitalization as shown in Table 35. The



Authority also had proposed to undertake a study by technical experts to estimate the allowable capital expenditure for construction of terminal building, construction 'N' taxitrack (balance portion) connecting Runway 07-25, construction 'R' taxitrack left out portion connecting Runway 12-30, RET-I and RET25\_1 vis-à-vis normative benchmarks. The Authority had asked AAI for detailed information on justification for exceeding the normative benchmarks. Due to lack of detailed information and in the interest of avoiding delays in fixing tariffs, the Authority had proposed to determine capital expenditure using normative norms at this stage. The Authority is aware of the shortcomings of this approach and therefore, shall undertake a study on reasonableness of capital expenditure after capitalization of these assets and make appropriate adjustments while determining tariffs for third control period. Based on the outcome of study and the fairness of the tender procedures followed for selection of contractor, the Authority had proposed to update capital expenditure at the time of tariff determination for 3<sup>rd</sup> control period.

Table 35 – Capital expenditure for taxi track and terminal building as considered by the Authority in the Consultation Paper

Sr. No.	Asset	Year	Area (sq. m.)	Inflation adjusted normative benchmark cost per unit area (₹ per sq. m.)	Allowed Capex (₹ cr.)
1	'R' Taxitrack left out portion connecting Rwy 12-30	2020	42,000	5,541	23.3
2	N' Taxitrack (balance portion) connecting Rwy 07-25	2020	16,500	5,541	9.1
3	Rapid Exit Taxiway (RET)-I and RET25_1	2020	23,500	5,541	13.0
4	Construction of first phase of terminal building	2021	105,000	79,846	838.4

9.18. The Authority had proposed to consider civil works of terminal building related capital expenditure (₹ 419.2 crore in FY 2020-21) in 2<sup>nd</sup> control period based on 92.5% ratio for aeronautical capital expenditure (revised to ₹ 387.8 crore in FY 2020-21).

9.19. The Authority had proposed to consider Electrical installation capital expenditure



related to terminal building (₹ 419.2 crore in FY 2020-21) in 2<sup>nd</sup> control period based on 92.5% ratio for aeronautical capital expenditure (₹ 387.8 crore in FY 2020-21).

9.20. As per para 7.11, the Authority decides to include cargo assets additions (₹ 2.6 cr. in FY 2016-17 as per AAI clarification dated 08.12.2017) from 01.04.2016 till 31.03.2017 and decides to exclude them from 01.04.2017 till 31.03.2021 while determination of tariff in the second control period. Further, the Authority had noted that there is no clarity on the transfer of cargo assets to AAICLAS as of now. The Authority will take a view on this while truing up in the 3<sup>rd</sup> control period based on the decisions taken by the AAI.

9.21. The Authority had proposed in the Consultation Paper to consider the total aeronautical capital expenditure to be capitalized and added to RAB at ₹ 1,143.8 crores.

Table 36 - Revised aeronautical capital expenditure for 2<sup>nd</sup> control period as considered by the Authority in the Consultation Paper

S.N.	Particulars (₹ crore)	2016-17*	2017-18	2018-19	2019-20	2020-21
1	Runways, Taxiways and Aprons	12.7	24.0	0.3	83.0	0.0
2	Terminal/Other Buildings	12.8	29.4	7.0	0.0	390.1
3	Temporary Buildings	0	0	0	0	0
4	Roads, Bridges & culvert	2.0	10.3	0.0	85.6	0.0
5	Boundary wall (operational)	0.0	1.6	2.5	0.0	0.0
6	Boundary wall (residential)	0.0	0.0	0.0	0.0	0.0
7	Plant & Machinery	0.0	0.0	0.0	0.0	0.0
8	Tools and Equipments	23.3	0.0	0.0	0.0	0.0
9	Electrical Installations	2.0	51.4	10.0	0.0	390.1
10	Furniture & Fixtures	0.5	0.5	0.0	0.0	0.0
11	Computer, IT Hardware & Access.	0.3	2.0	0.1	0.0	0.0
12	Computer Software	0.3	1.0	0.0	0.0	0.0
13	Other Vehicles	0.9	0.0	0.0	0.0	0.0
14	Office Equipments	0.1	0.0	0.0	0.0	0.0
15	CFT	0.3	0.0	0.0	0.0	0.0
	<b>Total (₹ 1,143.8 crores)</b>	<b>55.2</b>	<b>120.1</b>	<b>19.9</b>	<b>168.6</b>	<b>780.1</b>

\* FY 2016-17 includes cargo capital additions

9.22. The Authority had noted that the cost of the planned works is indicative. The Authority had proposed to consider the addition to aeronautical assets during the 2<sup>nd</sup> control period as given in Table 36 subject to true-up of RAB based on actual



aeronautical asset addition, outcome of the study mentioned in para 9.17 and the actual costs as per the tender while determining tariffs for the 3<sup>rd</sup> control period.

9.23. In the 2<sup>nd</sup> control period, project works related to connectivity to metro rail to city side and provision of walkators at CIA, RET-I and RET25\_1 and construction of terminal building - Phase II are proposed to be taken up. These require user consultation as per the Guidelines. The Authority expects AAI to provide all the required project information as part of the consultation process with users.

9.24. Based on the material before it and its analysis, the Authority proposed the following:

9.24.1. To consider allowable project cost of ₹ 1,143.8 crores which includes the first Phase of construction of Terminal Building and accordingly to reckon the amount of ₹ 1,143.8 crores as addition for total assets during the 2nd control period.

9.24.2. Directs AAI to undertake user stakeholder consultation process for major capital expenditure items as per the Guidelines.

9.24.3. To true-up the Opening RAB of the next control period depending on the capital expenditure incurred and date of capitalisation of underlying assets in a given year.

#### ***Stakeholders' comments and Authority's examination***

##### ***Comments from IATA***

9.25. IATA urges AERA in the strongest possible terms to enforce its Consultation Protocol per the 2011 Act at Chennai airport (and all other airports that are subject to economic regulation), to ensure meaningful consultation with airline stakeholders who fund and pay for major capital expenditures. At present, the consultation process is a failure. The airline community has insufficient information available to provide informed feedback or take informed decisions regarding airport capital developments. We are perplexed and frustrated that this is the case at Chennai, and many other airports given the Consultation Protocol exists, and supports a structured process of dialogue and consultation between airports and Users. We would welcome AERA's feedback regarding its reluctance to enforce the protocol that is having a substantial, detrimental



impact on airline Users and consumers. Put simply, airlines require a Business Case to ensure investments deliver a return on investment for them, as any businesses do.

9.26. Based on the frugal information provided, IATA will take the opportunity to make the following comments:

9.26.1. No reasonable explanation is provided by AERA to justify its position that INT traffic will grow by 5.3% in the second control period, noting AAI's assessment is less rapid growth and actual growth is more conservative again considering the last 5 years. While any forecast is subject to variation, the underlying assumptions should be shared in detail and consensus agreed between Users and the airport authority in advance of any determination. IATA requests AERA's planning assumption are shared so that we may comment appropriately on behalf of Users, recognising:

9.26.1.1. The impact of not taking User's perspectives and feedback into account, is infrastructure that may be triggered resulting in higher than acceptable levels of aeronautical charges

9.26.1.2. The timing of when additional terminal infrastructure is required needs further scrutiny in consultation with the airline community considering different views on when the existing capacity will be saturated. This needs to take into account both million passengers per annum to determine the scale and timing of when facilities are required, and in more detailed terms peak hour passengers to determine terminal sub-system requirements.

9.26.1.3. Within the 5 year control period, annual assessments of traffic is required in consultation with Users, to adjust the timeframes to trigger investment if required.

9.26.2. AAI's strategy to replace 2 old terminals with a new DOM and INT terminal needs to be justified and explained in more detail. An airport with 2 recently developed terminal that is the scale and size of Chennai should not require 4 terminals. IATA recommends a review and study to assess how the existing



terminal buildings can be optimised and extended to accommodate additional demand. Multiple terminal will result in inefficient operations and additional operating and maintenance costs that is to be avoided. We recommend all approvals and development works ceases until a thorough consultation on terminal strategy has been reviewed.

9.26.3. IATA Levels of Service (LoS) referred to is out of date and needs to reflect updated industry standards. The IATA Airport Development Reference Manual (ADRM) 10th Edition recommended an "Optimum" LoS that strikes the correct balance between functionality and costs, and take both space and time into account.

9.27. IATA LoS refer to the functionality required to deliver the required airport capacity, to meet demand. Building specifications and finishes that drives substantial costs needs to be consulted upon thoroughly with the airline community, as this is choice to be considered and made with airline Users funding developments.

9.28. Numerous references are made regarding aircraft parking and stands provision, yet oddly no information is provided regarding the total number of parking stands required to meet demand over time, the mix of aircraft stands, or levels of pier service that drives the requirement for contact gates. Again, this should be consulted upon with Users.

9.29. IATA welcomes AERA's comparison of proposed costs versus its normative cost assessments, however this does not replace the need for a detailed, independent cost study to demonstrate value for money to Users.

9.29.1. Capital estimates and benchmarking is a complex subject that also requires an assessment of the overall design, operating and maintenance costs in close consultation with Users.

9.29.2. Regulatory mechanisms should be applied to incentivise airports to be efficient that are well proven at other airports, for instance:

9.29.2.1. Costs should only be agreed and added to the RAB once the project meets Scheme Design or an estimated 85% design certainty



9.29.2.2. A mechanism should be applied to ensure the beneficial use of assets  
Users are funding are delivered on time, and to the quality and costs  
agreed, or rebates applied.

***AAI's submission to IATA's comments***

9.30. AAI submitted that the query on Terminal Building has been explained in detail in the consultation meeting at Chennai.

***Authority's examination of IATA's comments and AAI's submission to IATA's comments***

9.31. The Authority has given careful consideration to the comments from IATA on the capital expenditure.

9.32. With respect to IATA's comment on traffic forecast for international ATM and passenger growth, the Authority has provided reasoning for the growth forecast in paras 6.4 to 6.6, 6.12 & 6.14. The Authority does not have the mandate to monitor the on-time delivery of the major projects, its quality and specifications. However, if a capital addition project is delayed due to any unjustifiable cause, the Authority will not consider the relevant cost of the project in the RAB.

9.33. On the comment of IATA on the level of service, the Authority notes the need for prompt investments for improvement of service quality at the airport and the need for user consultation.

9.34. The Authority has noted IATA's comment on the number of terminals at CIA. The issue was discussed in detail in the stakeholder consultation meeting held on 09.03.2018 when similar concerns were raised by the airlines. However, AAI had explained that due to the constraints in the depth of the terminal at CIA and without any clear indication on the status of second airport in Chennai, AAI's proposed construction of terminal buildings is needed to address the traffic growth expected.

9.35. While the Authority is aware of the constraints faced by CIA, the Authority suggested to AAI to consider the option of developing contiguous domestic terminals rather than two separate domestic terminals at two ends of the terminal complex as per AAI's current plan. The Authority is of the view that such development would facilitate



passenger movement within the terminal and improve the operational efficiency of the airlines.

**Comments from FIA**

- 9.36. In Table 26 (Aeronautical Assets to be capitalized at CIA for 2<sup>nd</sup> control period) of para 8.1, the revised capital expenditure submitted by AAI has been provided based on the revised submissions of AAI. FIA states that it can be observed from the table that cost of both "Terminal / Other building" and "Electrical Installations" have been doubled. In para 8.17 it is stated that Authority proposed to undertake a study by technical experts to estimate the allowable expenditure for, inter alia, construction of terminal building vis.-a-vis. normative benchmarks. It is further stated that the Authority had asked AAI for detailed information on justification for exceeding the normative benchmarks, however due to lack of detailed information and in the interest of avoiding delays in fixing tariffs, the Authority proposed to determine the expenditure using the normative approach at this stage. The Authority while acknowledging the shortcomings of this approach has stated that it shall undertake a study on the reasonableness of expenditure after capitalization of the assets and make appropriate adjustments while determining tariffs for third control period. FIA submits that in view of such high quantum of increase in the capital expenditure, instead of merely relying on the normative approach, the Authority ought to commission a study by technical experts to obtain an expert opinion which shall assist the Authority in the fair and reasonable tariff determination. FIA, being one of the stakeholders, should be provided with a copy of such study report by the expert opinion to ensure transparency in such process. Further, FIA submits that the Authority is well aware of the delay in incorporation of the revised tariffs in the second control period and any further delay to commission the study on critical issues may adversely impact the determination of the tariffs for aeronautical services. Further, prior user consultation should be undertaken by AAI before proposing any expenditure proposal to the Authority and the same should be demonstrated and justified with complete documentation before the Authority.
- 9.37. In para 8.16, it is mentioned that the Authority requested justification from AAI for



higher than normative benchmark costs for construction of terminal. AAI as per clarification dated 8.12.2017 submitted that the reason for higher than normative costs is due to inter alia to achieve GRIHA 4 star rating, GRIHA V2015 reference guide will be followed for which international standards GRIHA/LEED rated sanitary/plumbing appliances, electrical appliances, building material for core work and finishing work are proposed which includes high end international sanitary fittings. FIA submits that although AERA has accepted AAI's high cost on ground to achieve GRIHA 4 star rating, it should undertake a separate study on the cost, as sum of these items (Rs 2534.2 cr) is more than the Opening RAB (as of 1.04.2016) i.e. Rs. 1991.6. FIA reiterates its submission on para VI (a) above and submits that a study by technical experts is critical to independently arrive at justification of any high capital expenditure. Any failure to conduct an independent study by the Authority before determination of tariffs on such issues will not result in reasonable determination of Aeronautical Tariff.

9.38. In para 8.23 it is mentioned that, in the 2nd control period, project works related to connectivity to metro rail to city side and provision of walkators at CIA, RET-I and RET25\_1 and construction of terminal building - Phase II are proposed to be taken up. It is further stated that these require user consultation as per the Guidelines. The Authority expects AAI to provide all the required project information as part of the consultation process with users. FIA submits that Authority should allow such projects involving high costs only after user consultation has been undertaken and suggestions of all the stakeholders have been incorporated.

**AAI's submission on FIA's comments**

9.39. In response to FIA's comment, AAI submitted that Airport User Consultation has taken place for all Major Capital works at Chennai Airport wherein all the stakeholders were present. Further, AAI added that as far as the normative approach is concerned, AERA would appoint experts for study for each Asset and it would be trued up in the third control period.



***Authority's examination of FIA's comments and AAI's submission on FIA's comments***

9.40. With respect to the user consultation for the Phase II of Terminal Building, the Authority notes that AAI has conducted stakeholder consultation meeting on 21.06.2017 in which, among others, personnel from AOC, Jet Airways, Indigo and Go Air had participated. Further, the Authority has directed airport operators that the Authority's representative should be invited to the stakeholder consultation meetings for capital expenditure. The Authority would appreciate constructive involvement of airlines in such a consultative process. The Authority would urge AAI to undertake user consultation process as per the norms.

9.41. With respect to FIA's comment on conducting a prior independent study on capital expenditure, the Authority notes that any further delay in determining the tariffs at CIA would mean continuance of the higher tariffs currently existing at CIA. Hence, the Authority has taken a decision to conduct the independent study on reasonableness of capital expenditure subsequently and make appropriate adjustments while determining tariffs for the third control period.

***Comments from AOC***

9.42. AOC submitted below points with respect to capital asset additions in 2<sup>nd</sup> control period:

- 9.42.1. Multi-Level Car Parking not in place
- 9.42.2. Delay in commissioning the walkalators between T-1 and T-4
- 9.42.3. 12/30 runway not put to full length use. Restricted to Code C
- 9.42.4. Old terminal Security Holding Area is used for majority of boarding
- 9.42.5. Old Terminal used for International arrivals
- 9.42.6. Saturated and congested domestic and international concourse
- 9.42.7. Traffic pattern to Airport is annoying and inconvenient to customers
- 9.42.8. Lack of adequate concessionaries
- 9.42.9. Lack of RET increasing ROT
- 9.42.10. Severe shortage of regulatory agencies



- 9.42.11. Lack of adequate cargo space for ULD parking
- 9.42.12. Only 2 GHA as against 3 as per regulations
- 9.42.13. Shortage of check in Kiosks
- 9.42.14. Remote parking for domestic flights due shortage of bays and lengthy time for boarding and arrival to concourse
- 9.42.15. Lack of adequate facilities for ramp and inter terminal transfers

**AAI's submission on AOC's comments**

9.43. AAI submitted following responses to AOC's comments:

- 9.43.1. Multi-Level Car Parking not in place - Request for proposal for Multi-Level Car Parking has been called for and same is proposed to be completed in second control period.
- 9.43.2. Delay in commissioning the walkalators between T-1 and T-4 - Domestic leg has been completed. The PDC for commissioning the walkalators between T-1 and T-4 would be May 2018.
- 9.43.3. 12/30 runway not put to full length use. Restricted to Code C - The major Capital works of Chennai Airport towards 12/30 runway are as under
  - a) Construction of "R" Taxi Track Left out portion connecting Runway 07-25 i/c box culvert.
  - b) Construction of "R" Taxi Track Left out portion connecting Runway 12-30 and "N" Taxi Track (Balance Portion) connecting Runway 07-25.
  - c) Construction of 2 nos. Rapid Exit Taxiways (RET) for the main runway 07/25 and straightening of B-Taxiway as Parallel Taxi Track suitable for code-E Aircraft at CIA. Both the work would be completed in the FY 2019-20.
- 9.43.4. Old terminal Security Holding Area is used for majority of boarding - By converting arrival area (Ground Floor) to additional departure area, total T-4 capacity would be exclusively for International Departure
- 9.43.5. Old Terminal used for International arrivals – Yes, it is used for International Arrival. A new Terminal Building would come up by FY 2020-21. All the terminal building would be new by FY 2020-21.



- 9.43.6. Saturated and congested domestic and international concourse, traffic pattern to airport is annoying and inconvenient to customers, lack of adequate concessionaries - A new terminal building would come up by FY 2020-21 and thus there would be increased capacity of the terminal building.
- 9.43.7. Lack of RET increasing ROT - Construction of 2 nos. Rapid Exit Taxiways (RET) (RET-I and RET25\_1) for the main runway 07/25 and straightening of B-Taxiway as Parallel Taxi Track suitable for code-E Aircraft at CIA. The work would be completed in the FY 2019-20.
- 9.43.8. Severe shortage of regulatory agencies - Assurance has been given by the Regularity Agencies (Custom and CISF Personnel) to increase the strength.
- 9.43.9. Lack of adequate cargo space for ULD parking - The detail proposal for cargo would be provided at the time of submission of cargo tariff proposal.
- 9.43.10. Shortage of check in Kiosks - By converting Arrival area (Ground Floor) to Additional Departure area, total T4 Capacity would be exclusively for International Departure. A new terminal building would come up by F.Y 20-21 and thus there would be increased capacity of the terminal building. This would increase number of Check in Kiosks.
- 9.43.11. Remote parking for domestic flights due shortage of bays and lengthy time for boarding and arrival to concourse - The following works would reduce the time for boarding and arrival to concourse for domestic flights.
- a) Re-construction of Taxiway "H" (Phase-I)
  - b) Re-construction of T/w "H" (Phase-II)
  - c) Re-Construction of Domestic and International bays
  - d) Reconstruction of fillet at Taxiway 'F'
  - e) construction of "R" Taxi Track Left out portion connecting Runway 07-25 i/c box culvert and
  - f) construction of "R" Taxi Track Left out portion connecting Runway 12-30 and "N" Taxi Track (Balance Portion) connecting Runway 07-25
- 9.43.12. Lack of adequate facilities for ramp and inter terminal transfers - By



converting arrival area (Ground Floor) to additional departure area, total T-4 capacity would be exclusively for International Departure. A new terminal building would come up by FY 2020-21 and thus there would be increased capacity of the terminal building. The walkalator (cityside) for domestic connectivity to Metro Rail to city side has already been completed and the International Terminal would be connected to metro by May 2018.

**Authority's examination of AOC's comments and AAI's submission on AOC's comments**

9.44. The Authority has noted AOC's comments on capital additions at CIA. The Authority has also noted AAI's responses to AOC's comments. The Authority urges AAI to speed up the implementation of the proposed capital projects to mitigate the inconvenience faced by users.

9.45. The Authority notes that although Multi-Level Car Parking has been proposed by AAI it has been excluded from the RAB since it will fall under non-aeronautical assets.

9.46. Further, the Authority expects AAI to appoint three Ground Handling Agencies at CIA as per MoCA's directive in GH Regulations issued in December, 2017.

**AAI's submission on asset additions in 2<sup>nd</sup> control period**

9.47. In their response dated 16.03.2018 and 26.03.2018, AAI requested the Authority to consider the capital projects as per the table below:

Table 37 – Additional capital expenditure as proposed by AAI for 2<sup>nd</sup> control period

Asset Type	Particulars	FY 2019-20	FY 2020-21	Remarks	Area in sq. m.
R/W/Taxiway	Straightening of B-Taxiway from Bay No. 8 to Runway 30 along with parking bays and Rapid Exit Taxiway (RET)-I and RET25_1	97.60		AA&ES issued	112,200
R/W/Taxiway	Construction of 'R' Taxitrack upto Runway 07/25	59.00		AA&ES issued	56,600
Building-Residential	Densification and construction of New Residential Qtrs.700Nos.		173.00	Scope of work approved	



Asset Type	Particulars	FY 2019-20	FY 2020-21	Remarks	Area in sq. m.
Tools & Equipments	Ground based solar plant		50.00	AA&ES issued	
Other Building-Civil & Elect. Work	Cons. Of additional multi storied CISF barracks Accommodation		16.56	Preliminary estimate	
Other Building-Civil Work	Cons. Of pre Engineered steel structure shed of E&M work shop		4.35	AA&ES issued	
Other Building-Elect work	Cons. Of pre Engineered steel structure shed of E&M work shop		0.97	AA&ES issued	
Other Building-Electronics	Cons. Of pre Engineered steel structure shed of E&M work shop		0.02	AA&ES issued	
Other Building-IT	Cons. Of pre Engineered steel structure shed of E&M work shop		0.07	AA&ES issued	
	<b>Total</b>	<b>156.60</b>	<b>244.97</b>		

9.48. AAI has submitted following details of the proposed capital works in the above table during the 2<sup>nd</sup> control period:

9.48.1. Ground based solar plant (₹ 50 cr. under Tools and Equipments in FY 2020-21)

The available roof top has been utilised by installing 1.6 Mwp Solar power plant. To cater the energy requirement of Chennai Airport additional capacity is being proposed through ground based solar power plant. Thus there will be saving in times of carbon foot print by utilising green power/renewal power.

9.48.2. Construction of 'R' Taxitrack upto Runway 07/25 (₹ 59.0 cr. under Runways, Apron and Taxiway in FY 2019-20)

At present only part parallel taxi track "R" is available. In order to effectively utilise remote apron bays (11 number code E & 24 no. code "C") extension of "R" parallel taxi track within available land to being taken up. This will facilitate aircrafts utilising remote apron as well as aircraft landing on Rwy 12-30 and taxing to main apron in front of terminal building.



9.49. AAI submitted that the Authority has considered capital cost of Terminal Building Phase-I, Apron and Taxiways on normative basis. The major capital works of AAI being incurred after clearance from PIB and CCEA. The tendering is done on the open competitive transparent mechanism & participative manner, therefore the cost of project so arrived at is the lowest possible market cost. In view of the above, AAI requested the Authority to consider the projected cost of AAI & the same will be trued up as per actuals. AAI will be subjected to additional burden during construction for the differential amount.

**Authority's examination of AAI's submission**

9.50. The Authority notes that AAI has proposed to include certain capital assets in the 2<sup>nd</sup> control period which were not included in the Consultation Paper. The Authority has noted that AAI presented details of these capital expenditure in the stakeholder consultation meeting held on 09.03.2018. The Authority is of the view that for assets which have not obtained administrative approval and expenditure sanction, these plans are still in proposal stage and are therefore tentative. Hence, the Authority decides to include only those assets for which such sanctions have been issued.

9.51. The Authority noted that AAI has included capital expenditure towards solar power plant (as part of Tools & Equipments ₹ 50.0 crore in FY 2020-21) as 100% aeronautical capital expenditure in the 2<sup>nd</sup> control period. The Authority had proposed to consider the allocation of solar power plant capital expenditure based on 92.5% ratio as aeronautical capital expenditure (as part of Tools & Equipments ₹ 46.3 crore in FY 2020-21).

9.52. The Authority noted that the capital expenditure for Straightening of B-Taxiway from Bay No. 8 to Runway 30 along with parking bays (₹ 33.1 cr.) and Rapid Exit Taxiway (RET)-I and RET25\_1 (₹ 13.0 cr.) has already been included in the assets addition in the Consultation Paper. AAI vide its response dated 26.03.2018 submitted that the asset with cost of ₹ 97.6 cr. pertains to Straightening of B-Taxiway from Bay No. 8 to Runway 30 along with parking bays and Rapid Exit Taxiway (RET)-I and RET25\_1 for which the area has to be updated to 112,200 sq. m. Accordingly, the Authority decides to revise



the capital expenditure for Straightening of B-Taxiway from Bay No. 8 to Runway 30 along with parking bays and Rapid Exit Taxiway (RET)-I and RET25\_1 based on normative approach.

9.53. The Authority has noted that the cost per sq. m. for construction of 'R' Taxitrack upto Runway 07/25 is ₹ 10,387 which is more than the inflation adjusted normative benchmarks. Hence, the Authority decides to revise the total capital expenditure for construction of 'R' Taxitrack upto Runway 07/25 based on normative benchmarks for FY 2015-16 and increase the benchmarks by WPI of 4.2% per annum till the year of capitalization as shown in Table 38.

9.54. With respect to AAI's comment on the normative approach, the Authority, in order to avoid delay in determining the tariffs for CIA, decides to undertake the study on reasonableness of capital expenditure of the first phase of construction of terminal building assets and make appropriate adjustments while determining tariffs for third control period. In the Consultation Paper, the Authority had proposed to adopt inflation adjusted normative cost to arrive at the allowable capital expenditure for 2<sup>nd</sup> control period. AAI has asked for a review of this approach. The Authority has already undertaken studies for a few other major airports for determining the reasonableness of the capital expenditure for their respective terminal buildings. As per these studies, the cost works out to approximately ₹ 100,000 per sq. m. of terminal building assuming glass & steel facade. The Authority is of the view, that this cost reflects a realistic estimate of the capital expenditure. The Authority, therefore, decides to consider capital expenditure towards first phase of the construction of terminal building based on cost per sq. m. benchmark of ₹ 100,000 per sq. m. subject to review, later on.

9.55. Revised capital expenditure for assets based on modified normative approach is shown in table below:



Table 38 – Capital expenditure for taxi track and terminal building as considered by the Authority for 2<sup>nd</sup> control period in the Order

Sr. No.	Asset	Year	Area (sq. m.)	Inflation adjusted normative benchmark cost per unit area (₹ per sq. m.)	Allowed Capex (₹ cr.)
1	'R' Taxitrack left out portion connecting Rwy 12-30	2020	42,000	5,541	23.3
2	'N' Taxitrack (balance portion) connecting Rwy 07-25	2020	16,500	5,541	9.1
3	Straightening of B-Taxiway from Bay No. 8 to Runway 30 along with parking bays and Rapid Exit Taxiway (RET)-I and RET25_1	2020	112,200	5,541	62.1
4	Construction of first phase of Terminal Building	2021	105,000	100,000 <sup>#</sup>	1,050.0
5	Construction of 'R' taxi track left out portion connecting Runway 07-25 including box culvert	2020	56,600	5,541	31.4

# as per studies conducted by the Authority for a few other major airports

9.56. Capital expenditure for first phase of Terminal Building has been allocated between aeronautical and non-aeronautical assets as per para 9.18 and para 9.19.

9.57. Also, the Authority decides to undertake a study to determine the allowable capital expenditure for the second phase of the Terminal Building prior to commencement of Phase 2.

9.58. The Authority decides to undertake a study by technical experts to estimate the reasonable capital expenditure for construction of terminal building, construction 'N' taxitrack (balance portion) connecting Runway 07-25, construction 'R' taxitrack left out portion connecting Runway 12-30, RET-I and RET25\_1 vis-à-vis normative benchmarks and make appropriate adjustments while determining tariffs for third control period.

9.59. The revised capital expenditure for 2<sup>nd</sup> control period as considered by the Authority in the Order is shown in table below:



Table 39 - Revised aeronautical capital expenditure for the 2nd control period as considered by the Authority in the Order

S.N.	Particulars (₹ crore)	2016-17*	2017-18	2018-19	2019-20	2020-21
1	Runways, Taxiways and Aprons	12.7	24.0	0.3	129.7	0.0
2	Terminal/Other Buildings	12.8	29.4	7.0	0.0	487.9
3	Temporary Buildings	0	0	0	0	0
4	Roads, Bridges & culvert	2.0	10.3	0.0	85.6	0.0
5	Boundary wall (operational)	0.0	1.6	2.5	0.0	0.0
6	Boundary wall (residential)	0.0	0.0	0.0	0.0	0.0
7	Plant & Machinery	0.0	0.0	0.0	0.0	0.0
8	Tools and Equipments	23.3	0.0	0.0	0.0	46.3
9	Electrical Installations	2.0	51.4	10.0	0.6	488.9
10	Furniture & Fixtures	0.5	0.5	0.0	0.0	0.0
11	Computer, IT Hardware & Access.	0.3	2.0	0.1	0.0	0.1
12	Computer Software	0.3	1.0	0.0	0.0	0.0
13	Other Vehicles	0.9	0.0	0.0	0.0	0.0
14	Office Equipments	0.1	0.0	0.0	0.0	0.0
15	CFT	0.3	0.0	0.0	0.0	0.0
	<b>Total (₹ 1,434.2 crores)</b>	<b>55.2</b>	<b>120.1</b>	<b>19.9</b>	<b>215.9</b>	<b>1,023.2</b>

\* FY 2016-17 includes cargo capital additions

#### Decision No. 6. Capital Expenditure

- 6.a. The Authority decides to consider proposed project cost of ₹ 1,434.2 crores which includes the first Phase of construction of Terminal Building and accordingly to reckon the amount of ₹ 1,434.2 crores as addition for total assets during the 2<sup>nd</sup> control period.
- 6.b. The Authority directs AAI to undertake user stakeholder consultation process for major capital expenditure items as per the Guidelines.
- 6.c. The Authority decides to true-up the Opening RAB of the next control period depending on the capital expenditure incurred and date of capitalisation of underlying assets in a given year.
- 6.d. The Authority decides to undertake a study to determine the allowable capital expenditure for the second phase of the Terminal Building prior to commencement of Phase 2.
- 6.e. The Authority decides to undertake a study by technical experts to estimate the reasonable capital expenditure for construction of terminal building, construction 'N' taxitrack (balance



portion) connecting Runway 07-25, construction 'R' taxitrack left out portion connecting Runway 12-30, RET-I and RET25\_1 vis-à-vis normative benchmarks and make appropriate adjustments while determining tariffs for third control period.



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## 10. Depreciation

10.1. AAI has submitted that the depreciation rates used are as per AAI's approved accounting policy. The salient aspects of AAI's depreciation policy being followed are as under:

10.1.1. Method of depreciation: straight line;

10.1.2. 100% of depreciation rates of assets if assets are used in a financial year for 180 days or more. If the assets are used for less than 180 days in a year the depreciation is charged at 50% of the depreciation rates. This policy is effective from the financial year 2012-13;

10.1.3. Residual value for each asset is taken as Re.1 balance to be provided by way of depreciation as per prescribed rates.

### **Authority's Examination**

10.2. The Authority had noted that the depreciation policy of AAI is not in accordance with the depreciation rates adopted by the Authority in other private airports. AAI is a statutory body established under the AAI Act and it does not come under the Companies Act. The Board of AAI has approved the depreciation policy that has been adopted by AAI.

10.3. The Authority had noted that on some of the assets the depreciation charged by AAI is not in line with the Companies Act 2013. The Authority is of the view that adoption of depreciation rates as prescribed under the Companies Act at any point of time is appropriate, considering the variation in policies adopted by the airport operators. The Authority further had noted that there is no specific mention of the classes of assets viz. apron, taxiway and runway in the Companies Act 2013 or 1956 or in the Income Tax Act 1961.

10.4. The Authority has recently released order on applicable depreciation rates. The revised depreciation rates are applicable from 01.04.2018. The Authority had noted the revised depreciation rates makes only a marginal difference in calculation of depreciation as compared to the rates used in the Consultation Paper. The Authority had proposed to make necessary adjustments in the rates while issuing the order for



the airport.

10.5. In light of above, for the categories of assets (runway, taxiway and apron) where no specific depreciation rate/ useful life has been mentioned in the Companies Act, the Authority had proposed to adopt depreciation rate of 3.33%. This rate is proposed to be applied on runway, taxiway and apron assets existing as on 01.04.2011 and on these assets added during 1<sup>st</sup> and 2<sup>nd</sup> control period.

10.6. The Authority had proposed to adopt the depreciation rates mentioned under Companies Act for assets as per the Companies Act 1956 till FY 2013-14 and as per the Companies Act 2013 from FY 2014-15 onwards as the effective date of implementation of the Companies Act 2013 is 01.04.2014.

10.7. The Authority had proposed that for the new assets to be capitalized in the 2<sup>nd</sup> control period, depreciation is charged at 50% of the depreciation rates in the year of capitalization.

10.8. The depreciation rates as submitted by AAI and as considered by the Authority during the 1<sup>st</sup> and 2<sup>nd</sup> control period are given below:

Table 40 - Depreciation rates as submitted by AAI and as considered by the Authority

No.	Asset Class	As per AAI	As per Authority till FY 2014	As per Authority FY2015 onwards
1	Land	0%	0.00%	0.00%
2	Runways, Taxiways, Aprons	13%	3.33%	3.33%
3	Roads, Bridges & culvert	13%	1.63%	3.33%
4	Terminal/Other Buildings	8%	1.63%	3.33%
5	Cargo Building	8%	1.63%	3.33%
6	Temporary Buildings	100%	100.00%	33.33%
7	Building – Residential	5%	1.63%	3.33%
8	Security Fencing	100%	100.00%	33.33%
9	Boundary wall (operational)	8%	1.63%	3.33%
10	Other Buildings - Unclassified	8%	1.63%	3.33%
11	Computer, IT Hardware & Access.	20%	16.21%	16.67%
12	Computer Software	20%	20.00%	20.00%
13	Plant and Machinery	11%	4.75%	6.67%
14	Tools & Equipments	20%	4.75%	6.67%



No.	Asset Class	As per AAI	As per Authority till FY 2014	As per Authority FY2015 onwards
15	Office Furniture & Fixtures	20%	6.33%	10.00%
16	Other Vehicles	14%	9.50%	12.50%
17	Electrical Installations	11%	4.75%	10.00%
18	Office Equipments	18%	4.75%	20.00%
19	Furniture & Fixtures	20%	6.33%	10.00%
20	X-Ray Baggage	11%	4.75%	6.67%
21	CFT	13%	4.75%	6.67%
22	Boundary wall (residential)	5%	1.63%	3.33%

10.9. The revised depreciation for the 2<sup>nd</sup> control period as per Hybrid Till as proposed by the Authority is given below:

Table 41 - Depreciation for the 2<sup>nd</sup> control period – Hybrid Till as considered by the Authority in the Consultation Paper

No.	Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21	Total
1	As per AAI	247.3	261.6	264.1	257.5	480.2	1,510.8
2	As per Authority	134.3	128.3	129.7	130.2	156.5	678.9

10.10. Based on the material before it and its analysis, the Authority proposed the following:

10.10.1. To adopt depreciation rates as per Table 40 and depreciation for the 2<sup>nd</sup> control period as per Table 41.

10.10.2. To make necessary adjustments in the depreciation rates based on the order issued on applicable depreciation rates while issuing the order for CIA.

10.11. The Authority proposed in the consultation paper to revise the depreciation rates based on the order issued on applicable rates while issuing the order for CIA.

10.12. Accordingly, the depreciation rates as per Order No. 35/ 2017-18 considered by the Authority from FY 2018-19 onwards are given below:



Table 42- Depreciation rates considered by Authority from FY 2018-19 onwards

No.	Asset Class	As per Authority from FY 2019
1	Terminal building (including VIP Terminal, Bus Terminal, Haj Terminal)	3.33%
2	Building in operational area	3.33%
3	Utility building	3.33%
4	Cargo complex	3.33%
5	Residential building	3.33%
6	Main access roads, Roads in operational area, Boundary wall, Security fencing	10.00%
7	Baggage handling/Escalators/Elevators/Travellite/HVAC equipment/Cargo ASRS/ETV equipment	6.67%
8	X-ray machine, RT Set, DFMD, HHMD, Security equipment	6.67%
9	Office equipment	20.00%
10	Furniture & fixtures - Other than trolleys	14.29%
11	Furniture & fixtures – trolleys	33.33%
12	Cargo equipment, Dollies, PPT	6.67%
13	Computers- End user devices	33.33%
14	Computers - Servers and Networks	16.67%
15	CUTE equipment	16.67%
16	Electrical installation and equipment - Electrical fittings, including Runway lightning system Gen-set/Power equipment	10.00%
17	Flight information system, AOCC equipment	10.00%
18	Light motor vehicles and heavy motor vehicles	12.50%
19	Crash fire tenders/Other fire equipment including pumps, sprinklers	6.67%
20	Intangible assets - Computer software	20.00%
21	Runway/Taxiway/Apron	3.33%
22	Hangar	3.33%

10.13. The revised depreciation for the 2<sup>nd</sup> control period as per Hybrid Till as decided by the Authority is given below:

Table 43 – Depreciation for the 2<sup>nd</sup> control period on Hybrid Till as considered by the Authority in the Order

No.	Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21	Total
1	As per AAI	247.3	261.6	264.1	257.5	480.2	1,510.8
2	As per Authority	138.1	132.2	142.8	146.7	182.9	742.7



**Decision No. 7. Treatment of Depreciation**

7.a. The Authority decides to adopt depreciation rates as per Table 40 and Table 42, as applicable and depreciation for the 2<sup>nd</sup> control period as per Table 43.



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## 11. RAB for Second control period

11.1. AAI has submitted Regulatory Asset Base for 2<sup>nd</sup> control period under Hybrid Till as follows:

Table 44 - Summary of the RAB and Depreciation for CIA (Airport Services) as per AAI for the 2<sup>nd</sup> control period

	Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
A	Opening Aeronautical RAB	1,501.9	1,296.2	1,198.4	991.2	733.6
B	Aeronautical Additional Assets capitalized during the year	41.6	163.8	56.9	0.0	2,534.2
C	Disposals/Transfers	0.0	0.0	0.0	0.0	0.0
D	Depreciation	247.3	261.6	264.1	257.5	480.2
F	Closing Aeronautical RAB (A+B-C-D)	1,296.2	1,198.4	991.2	733.6	2,787.6
	Average RAB (A+E)/2	1,399.1	1,247.3	1,094.8	862.4	1,760.6

### Authority's Examination

11.2. The Authority decides to adopt opening RAB for FY 2016-17 as detailed in Table 33.

11.3. The Authority decides to adopt depreciation as proposed in Table 43.

11.4. The Authority decides to consider ₹ 1,434.2 crores as the addition of aeronautical assets to RAB as detailed in Table 39.

11.5. As part of the clarifications provided dated 26.08.2017 and 12.10.2017, AAI submitted that all cargo assets have not been considered in the 2nd control period. As per AAI clarifications, AAI cargo logistics and allied services company limited (AAICLAS) is managing cargo activities at CIA, which is 100% subsidiary of AAI. AAICLAS would file cargo MYTP of CIA separately. As per AAI's submission dated 12.10.2017, the Authority had noted that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for CIA. Hence, the Authority decides to include cargo assets from 01.04.2016 till 31.03.2017 and decides to exclude them from 01.04.2017 till 31.03.2021 while determination of tariff in the second control period. Further, the Authority had noted that there is no clarity on the transfer of cargo assets to AAICLAS as of now. The Authority will take a view on this while truing up in the 3rd control period based on the



decisions taken by the AAI.

11.6. The revised Regulatory Asset Base as calculated by the Authority for 2<sup>nd</sup> control period under Hybrid Till is as follows:

Table 45 - Summary of forecast and Roll forward RAB and Depreciation for CIA (Airport Services) considered by the Authority for 2<sup>nd</sup> control period – Hybrid Till

	Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
A	Opening Aeronautical RAB	2,061.5	1,864.4	1,852.3	1,781.0	1,850.1
B	Aeronautical Assets capitalized during the year	55.2	120.1	19.9	215.9	1,023.2
C	Disposals/Transfers	0.0	0.0	0.0	0.0	0.0
D	Depreciation	138.1	132.2	142.8	146.7	182.9
E	Addition of T-4 assets from 01.10.2018 (half-yearly) adjusted for half-yearly depreciation			25.8		
F	Closing Aeronautical RAB (A+B-C-D+E)	1,978.6	1,852.3	1,755.1	1,850.1	2,690.4
	<b>Average RAB (A+F)/2</b>	<b>2,020.1</b>	<b>1,858.3</b>	<b>1,803.7</b>	<b>1,815.6</b>	<b>2,270.3</b>
G	Adjustment to Closing RAB of FY 2016-17 due to Cargo RAB	114.3				
	<b>Adjusted Closing RAB for FY 2016-17 excluding Cargo RAB (F-G)</b>	<b>1,864.4</b>				
H	Adjustment to Closing RAB of FY 2018-19 due to inclusion of T-4 assets from 01.10.2018 (other half) adjusted for depreciation			25.8		
	<b>Adjusted Closing RAB for FY 2018-19 including T-4 assets from 01.10.2018 (other half) adjusted for depreciation (F+H)</b>	<b>1,864.4</b>		<b>1,781.0</b>		

11.7. The Authority had proposed to true up the RAB of 2<sup>nd</sup> control period based on actual asset addition and revised depreciation rates, at the time of determination of tariff for



the 3<sup>rd</sup> control period.

**Decision No. 8. RAB for 2<sup>nd</sup> control period**

- 8.a. The Authority decides to consider RAB for 2<sup>nd</sup> control period as given in Table 45.
- 8.b. The Authority decides to true up the RAB of 2<sup>nd</sup> control period based on actual asset addition at the time of determination of tariff for the 3<sup>rd</sup> control period.



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

12.1. AAI has considered Fair Rate of Return (FRoR) as 14% at par with the decision taken by the Authority in Chennai, Kolkata Guwahati and Lucknow Airports for the 1<sup>st</sup> control period.

12.2. AAI has apportioned debt for CIA and financing activities are undertaken centrally at the corporate office of AAI.

12.3. As per clarifications provided by AAI dated 05.06.2017, total debt on books of AAI is 435 crores and total equity is 13,070 crores as on FY 2015-16. The cost of debt is 8.6% for unsecured non-convertible redeemable bonds to be redeemed in FY 2017-18.

### ***Authority's Examination***

12.4. The Authority has recognised that AAI's capital structure may not be regarded as an efficient one in that it doesn't optimize the cost of funds from a regulatory perspective. The Authority desires that the FRoR allowed to AAI should come down over a period of time by optimizing capital gearing. The Authority may also consider a normative capital structure to determine the FRoR at a later date. It may not be reasonable to expect AAI to contract large amounts of debt over a short period of time.

12.5. The Authority had noted that as per a study conducted in respect of the 'Fair Rate of Return Estimation for AAI' in July 2011 it estimated a figure of 14.96% as Fair Rate of Return for AAI. The Authority had noted that it has considered FRoR at 14% for CIA and Kolkata in the 1<sup>st</sup> control period considering the recommendations of another study done by NIPFP. Based on the decision taken for CIA and Kolkata, the Authority considered FRoR at 14% for Guwahati and Lucknow airport for 1<sup>st</sup> control period.

12.6. Based on the material before it and its analysis, the Authority proposed to consider FRoR at the rate of 14% for CIA for the 1<sup>st</sup> and 2<sup>nd</sup> control period as submitted by AAI.

### ***Stakeholders' comments and Authority's examination***

#### ***Comments from IATA***

12.7. IATA submitted that it welcomes the plan by AERA to undertake a study to determine the FRoR for major AAI airports, recognizing the low debt structure of AAI as a whole. In



particular, we understand that the cost of debt of AAI is 8.6%, so we fail to see how allowing an overall return of 14% to be appropriate. We urge AERA to carry out its study as soon as possible.

- 12.8. IATA submitted that it would be important to note that the low geared (suboptimal) capital structure of AAI will end up in unnecessarily high tax calculations. Interest expenses are normally a tax deductible expense.

***Comments from FIA***

- 12.9. FIA submitted that in para 11.6, it is stated that the Authority proposes to consider 'Fair Rate of Return Estimation' (FRoR) at the rate of 14% for CIA for the 1st and 2nd control period as submitted by AAI. FIA submits that CIA is operated and managed by AAI which admittedly falls under the definition of State under Article 12 of Constitution of India. Further, CIA is not being operated by an entity which is a private entity or as a public-private partnership (PPP) project which involves a substantial private investment. Therefore, the cost of equity at 14% p.a. for State is unreasonable and without any justification. AAI being a State, is under the constitutional obligation to cater the public interest and not commercial interest. Therefore, the cost of equity of 14% pa is very high and is arbitrary.

***AAI's submission to IATA's and FIA's comments***

- 12.10. AAI submitted on IATA's comment that the return on cost of equity considered by AERA is 16%. Further, AAI stated that AERA has already proposed a study for calculation of FRoR for the AAI airports. AAI added that the report of NIPFP National Institute of Public Finance and Policy is already there in the First Control CP.
- 12.11. AAI submitted on FIA's comment that AERA allows 16% rate of return on cost of equity. AAI added that for AAI's major airports, AERA has allowed 14% rate of return on the basis of study done in the First Control period.

***Authority's examination of IATA's and FIA's comments and AAI's submission to IATA's and FIA's comments***

- 12.12. The Authority has noted IATA's comment on impact of low gearing on taxes of CIA.



12.13. The Authority has given careful consideration to the comments from IATA and FIA on the FRoR. The Authority is yet to take a view on the concept of normative capital structure. However, the Authority notes that while determining the FRoR for AAI in the 1st control period a normative capital structure has been assumed by the Authority. The Authority proposes to undertake a study to determine FRoR for major AAI airports. Further decision on the FRoR will be taken after considering the results of such study.

**Decision No. 9. FRoR**

- 9.a. The Authority decides to consider the FRoR at 14% for CIA for the 1<sup>st</sup> and 2<sup>nd</sup> control period.
- 9.b. The Authority will undertake a study to determine FRoR for major AAI airports given the low debt structure of AAI as a whole.



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### 13. Revenue from services other than aeronautical services

13.1. AAI has forecasted revenue from services other than aeronautical services as below:

Table 46 - Revenue from Non-aeronautical Services – Projected by AAI for 2<sup>nd</sup> control period

No.	Revenue from services other than Regulated Services (₹ crore)	2015-16 (base)	2016-17	2017-18	2018-19	2019-20	2020-21
1	Terminal Concessions - Restaurants/ Snack Bars/ Flight Kitchen	24.3	27.7	31.5	35.9	41.0	49.2
2	Terminal Concessions - TR Stalls	23.3	26.6	30.3	34.5	39.4	47.3
3	Terminal Concessions - Duty Free Shops	40.5	55.5	61.0	67.1	73.8	88.6
4	Terminal Concessions - Hoarding and Display	23.1	25.4	28.0	30.8	33.9	40.6
5	Terminal Concessions - Car Rentals	3.4	3.8	4.1	4.5	5.0	6.0
6	Terminal Concessions - Other Miscellaneous Items	2.8	2.9	3.0	3.2	3.3	3.5
7	Lease Rent	67.7	72.8	78.3	84.1	90.4	97.2
8	Space Rent	22.2	24.4	26.8	29.5	32.4	38.9
9	Hanger	5.8	6.3	7.0	7.7	8.4	10.1
10	Car Parking	20.6	22.6	24.9	27.4	30.1	36.2
11	Other Income	14.0	14.7	15.4	16.2	17.0	17.8
12	Public Admission Fees	0.9	1.0	1.1	1.2	1.4	1.6
13	Revenues from Interest Income	1.5	1.6	1.7	1.8	1.9	2.0
	<b>Total</b>	<b>250.0</b>	<b>285.2</b>	<b>313.2</b>	<b>344.0</b>	<b>378.0</b>	<b>439.0</b>

13.2. The growth rates assumed by AAI for forecasting non aeronautical revenues are given below:

Table 47 – Assumption (growth rates) for Service other than Regulated Services for the 2<sup>nd</sup> Control Period as per AAI

No.	Particular	2016-17	2017-18	2018-19	2019-20	2020-21
1	Terminal Concessions - Restaurants/ Snack Bars/ Flt Kitchen	14%	14%	14%	14%	20%
2	Terminal Concessions - TR Stalls	14%	14%	14%	14%	20%
3	Terminal Concessions - Duty Free Shops	37%	10%	10%	10%	20%
4	Terminal Concessions -	10%	10%	10%	10%	20%



No.	Particular	2016-17	2017-18	2018-19	2019-20	2020-21
	Hoarding and Display					
5	Terminal Concessions - Car Rentals	10%	10%	10%	10%	20%
6	Terminal Concessions - Other Miscellaneous Items	5%	5%	5%	5%	5%
7	Lease Rent	7.5%	7.5%	7.5%	7.5%	7.5%
8	Space Rent	10%	10%	10%	10%	20%
9	Hanger	10%	10%	10%	10%	20%
10	Car Parking	10%	10%	10%	10%	20%
11	Other Income	5%	5%	5%	5%	5%
12	Public Admission Fees	10%	10%	10%	10%	20%
13	Revenues from Interest Income	5%	5%	5%	5%	5%

### Authority's Examination

13.3. The Authority noted that AAI has clarified in their 2<sup>nd</sup> control MYTP that due to new contract for duty free revenue in FY 2016-17, the revenues in FY 2016-17 have grown by 37% to ₹ 55.5 cr. The Authority had proposed to consider ₹ 55.5 cr. as duty free revenues in FY 2016-17 as proposed by AAI since it is as per the contract.

13.4. The Authority noted that as part of clarifications provided dated 26.08.2017, AAI has revised the growth rates to 10% (from 14% as submitted earlier) for revenues from services other than regulated services all the revenues except for land lease revenues, duty free revenues in FY 2016-17, other miscellaneous revenues, other income and revenue from interest income as per contractual arrangements. The Authority had proposed to consider the revised growth rates as submitted by AAI dated 26.08.2017 for the determination of tariff for the 2<sup>nd</sup> control period as these are as per contractual agreements.

13.5. The Authority had proposed that non-aeronautical revenues will be trued up if it is higher than the projected revenues. In case there is a shortfall, true-up would be undertaken only if the Authority is satisfied that there are reasonably sufficient grounds for not realizing the projected revenues. The Authority had proposed to accept the revenues from services other than regulated services as submitted by AAI except for adjustments as detailed below.



## Adjustment of lease rentals

13.6. AAI has allotted following land to cargo, ground handling and fuel companies (CGF) for their operations. AAI has considered income from such land lease as non-aeronautical revenues

Table 48 – Details of land allotted to cargo, ground handling and supply of fuel service providers in 2<sup>nd</sup> control period

Service	Service Provider	Land Allocated (Sq.m)		Land Lease revenues (FY 2015-16) ₹ crore
		Paved	Unpaved	
Fuel	IOCL		23,064	16.8
Fuel	HPCL		3,885	2.8
Fuel	BPCL		2,716	2.7
Fuel	RIL		6,000	4.4
Ground Handling	Bhadra	7,105		5.2
Cargo	Air India		17,549	12.8
Cargo	Bhadra	109		0.1

13.7. As per para 7.11, the Authority decides to include Cargo revenues from 01.04.2016 till 31.03.2017 and decides to exclude them from 01.04.2017 till 31.03.2021 while determination of tariff in the second control period. Further, the Authority had noted that there is no clarity on the revenue received by AAI from AAICLAS's cargo operations at CIA. As there is no clarity on the revenue sharing mechanism between AAI and AAICLAS, the Authority has decided to not consider the potential revenue from cargo operations at this juncture. The Authority will take a view on this while truing up in the 3rd control period based on the decisions that may be taken by the AAI in the matter. The Authority may also make necessary assumptions regarding the revenue that should accrue to AAI in case the revenue share arrangement does not truly reflect arms-length transactions between AAI and its subsidiary.

13.8. The Authority noted that AAI as per clarification dated 08.12.2017 has proposed land lease revenues from GH agencies for FY 2016-17 as ₹ 4.9 cr. and had proposed to accept the same. Further, the Authority noted that AAI in submission dated 26.08.2017



and 08.12.2017 has not increased land lease rentals from cargo, ground handling agencies and oil companies for the rest of the control period and had proposed to accept the same.

13.9. As per the provisions of the AERA Act, services rendered in respect of cargo, ground handling and fuel supply are aeronautical services.

13.10. The Authority had proposed to consider land lease revenues on account of the aeronautical services of CGF as aeronautical revenue.

13.11. The Authority noted that hangars charges have been considered as non-aeronautical revenues and hangar assets have been excluded from RAB.

13.12. The Authority observes that non-aeronautical revenue at CIA is low and expects AAI to utilize its resources better and maximize its non-aeronautical revenue to keep the aeronautical tariff down.

13.13. The Authority had proposed to consider non-aeronautical revenues as given below:

Table 49 – Adjustment to Revenue from Non-aeronautical Services considered by Authority for 2<sup>nd</sup> control period in the Consultation Paper

Revenue from services other than Regulated Services (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
<b>Non-Aeronautical Revenues as per AAI (A)</b>	<b>285.2</b>	<b>313.2</b>	<b>344.0</b>	<b>378.0</b>	<b>439.0</b>
<b>Adjustment:</b>					
Change in revenue from cargo, ground handling and fuel services considered as aeronautical revenues and change in growth rates (B)	50.0	55.9	62.7	70.4	102.5
<b>Non-Aeronautical Revenues as per Authority (A-B)</b>	<b>235.3</b>	<b>257.2</b>	<b>281.3</b>	<b>307.6</b>	<b>336.5</b>

13.14. Based on the material before it and its analysis, the Authority proposed the following:

13.14.1. To consider the revenues accruing to AAI on account of the aeronautical services of Cargo facility, Ground Handling Services and Supply of fuel to aircraft (FTC) including land lease rentals as aeronautical revenue.

13.14.2. To consider the non-aeronautical revenue as per Table 49.

13.14.3. To true up non-aeronautical revenues if it is higher than the projected



revenues. In case there is a shortfall, true-up would be undertaken only if the Authority is satisfied that there are reasonably sufficient grounds for not realizing the projected revenues.

### ***Stakeholders' comments and Authority's examination***

#### ***Comments from IATA***

13.15. IATA submitted that it views positively the proposal on 9c of CP as that will provide an incentive to airport to meet the non- aeronautical forecasts, rather than having the airport relying on true-ups should it fail to achieve them.

#### ***Authority's examination of IATA's comments***

13.16. The Authority has noted IATA's comment on non-aeronautical revenues.

#### ***AAI's submission on Revenue from services other than aeronautical services***

13.17. AAI submitted that as per AAI's calculation ₹ 44.72 cr. is towards revenue for the land/ lease rent in case of cargo, ground handling and fuel services in FY 2016-17 as against ₹ 50 cr. considered in Consultation Paper.

#### ***Authority's examination of AAI's submission***

13.18. The Authority has noted AAI's submission and clarifies that the change in the revenue is due to consideration of revenues from cargo, ground handling and fuel services as aeronautical revenues and change in the growth rates as proposed in the para 13.4.

13.19. The Authority has revised the non-aeronautical revenue for the 1<sup>st</sup> control period as per para 5.54 which has affected the non-aeronautical revenues for the 2<sup>nd</sup> control period. Revenue from non-aeronautical services as considered by the Authority for the 2<sup>nd</sup> control period has been shown in the table below:

Table 50 – Adjustment to Revenue from Non-aeronautical Services as considered by the Authority for 2<sup>nd</sup> control period in the Order

Revenue from services other than Regulated Services (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Non-Aeronautical Revenues as per AAI (A)	285.2	313.2	344.0	378.0	439.0
Adjustment:					



Change in revenue from cargo, ground handling and fuel services considered as aeronautical revenues and change in growth rates (B)	41.8	47.2	53.3	60.3	91.6
<b>Non-Aeronautical Revenues as per Authority (A-B)</b>	<b>243.4</b>	<b>266.0</b>	<b>290.7</b>	<b>317.7</b>	<b>347.4</b>

#### **Decision No. 10. Non Aeronautical Revenues**

- 10.a. The Authority decides to consider the revenues accruing to AAI on account of the aeronautical services of Cargo facility, Ground Handling Services and Supply of fuel to aircraft (FTC) including land lease rentals as aeronautical revenue.
- 10.b. The Authority decides to consider the Non Aeronautical Revenue as per Table 50.
- 10.c. The Authority decides that non-aeronautical revenues will be trued up if it is higher than the projected revenues. In case there is a shortfall, true-up would be undertaken only if the Authority is satisfied that there are reasonably sufficient grounds for not realizing the projected revenues.

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#### 14. Operation and Maintenance Expenditure

14.1. Operation and Maintenance (O&M) expenditure submitted by AAI is segregated into:

(i) Payroll expenses; (ii) Admin and General Expenditure; (iii) Repair and Maintenance Expenditure; (iv) Utilities and Outsourcing Expenditure; and (v) Other Outflows. The expenditure related to cargo operations has not been considered in 2<sup>nd</sup> control period while determining RAB.

14.2. Summary of aeronautical expenses proposed by AAI for 2<sup>nd</sup> control period is as below:

Table 51 - Summary of Aeronautical O&M expenditure as submitted by AAI for 2<sup>nd</sup> control period on Hybrid Till

No.	Particulars (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
1	Pay roll Expenditure of CIA	118.1	147.7	160.6	174.7	190.1
2	Expenditure for CIA employees' retirement benefits allocated at CHQ	19.5	24.4	25.7	26.9	28.3
A	<b>Total Pay roll Expenditure (1+2)</b>	<b>137.7</b>	<b>172.1</b>	<b>186.3</b>	<b>201.7</b>	<b>218.4</b>
4	Administrative and General Expenditure	3.9	4.3	4.7	5.2	5.7
5	Apportionment of administration & General expenditure of CHQ	24.3	25.6	26.8	28.2	29.6
B	<b>Total Administration &amp; General Expenditure(4+5)</b>	<b>28.2</b>	<b>29.8</b>	<b>31.5</b>	<b>33.4</b>	<b>35.3</b>
C	<b>Repairs and Maintenance Expenditure (Total)</b>	<b>71.0</b>	<b>78.1</b>	<b>85.9</b>	<b>94.5</b>	<b>103.9</b>
6	Power Charges	69.1	69.1	69.1	69.1	69.1
7	Water Charges	1.7	1.7	1.7	1.7	1.7
8	Outsourcing Charges	13.4	14.8	16.2	17.9	19.6
D	<b>Utility and Outsourcing Expenditure (6+7+8)</b>	<b>84.2</b>	<b>85.6</b>	<b>87.0</b>	<b>88.7</b>	<b>90.5</b>
E	<b>Other Outflows</b>	<b>11.7</b>	<b>12.2</b>	<b>12.8</b>	<b>13.5</b>	<b>14.2</b>
F	<b>Financing Charges</b>	<b>21.7</b>	<b>4.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	<b>Total (A+B+C+D+E+F)</b>	<b>354.5</b>	<b>382.5</b>	<b>403.5</b>	<b>431.6</b>	<b>462.2</b>

14.3. The details of the assumptions made by AAI for O&M Expenditure are given below:



Table 52 – Assumptions made by AAI for each item of O&M expenditure

No.	Particular	2016-17	2017-18	2018-19	2019-20	2020-21
<b>1</b>	<b>Payroll Expenses*</b>					
	Salaries and Wages	9%	25%	9%	9%	9%
	PF contribution	9%	25%	9%	9%	9%
	Medical expenses	9%	25%	9%	9%	9%
	Overtime	5%	25%	5%	5%	5%
	Staff Welfare Fund	9%	25%	9%	9%	9%
	Allocation of Retirement Benefit provided at CHQ in r/o CIA Employees	5%	25%	5%	5%	5%
<b>2</b>	<b>R&amp;M Expenses</b>	10%	10%	10%	10%	10%
<b>3</b>	<b>Utility and outsourcing Expenditure</b>					
	Power and water charges	0%	0%	0%	0%	0%
	Other outsourcing costs	10%	10%	10%	10%	10%
<b>4</b>	<b>Administration and General Expenditure</b>					
	Admin & General Expenses	10%	10%	10%	10%	10%
	Apportionment of CHQ/RHQ Expenses	5%	5%	5%	5%	5%
<b>5</b>	<b>Other Outflows</b>					
	Municipal Taxes	-46%	0%	0%	0%	0%
	Collection Charges on PSF & UDF	6%	6%	6%	6%	6%
	Other Misc. Office Expenses	10%	10%	10%	10%	10%
<b>6</b>	<b>Financing Charges</b>					
	Financing Charges	-56%	-78%	-100%	-	-

\* Higher growth rate for increase in Payroll costs in FY 2017-18 is due to 7<sup>th</sup> Pay Commission revision

14.4. AAI has segregated total O&M expenditure for the 2<sup>nd</sup> control period into aeronautical expenses, non-aeronautical expenses, and common expenses. Common expenses in turn have been allocated between aeronautical and non-aeronautical services.

14.5. Expense allocation as submitted by AAI for 2<sup>nd</sup> control period is tabulated below:



Table 53 – O&M Expense allocation as submitted by AAI

Sr. No.	Particulars	Aero Expense	Non-Aero Expense
1	Payroll Expenses - Non-CHQ	87%	13%
2	Payroll Retirement benefit expenses Apportionment – CHQ	89%	11%
3	Admin and General Expenses – Non CHQ	85%	15%
4	Admin and General overheads Expenses Apportionment – CHQ/RHQ	85%	15%
5	R&M Expenses	90%	10%
6	Utility and Outsourcing Charges	88%	12%
7	Other Outflows	94%	6%
	<b>Total</b>	<b>89%</b>	<b>11%</b>

### Authority's Examination

14.6. The Authority considered the operating expenses and their projections submitted by AAI and noted the following.

### Forecasting of payroll expenses

14.6.1. The Authority had noted that expenditure on apportionment of retirement benefits provided to CHQ in respect of CIA employees is increased at 5% annually for 2<sup>nd</sup> control period which is different from the 7% for the above mentioned payroll components. The Authority had proposed to apply the same growth rate of 7% annually except for FY 2017-18 for expenditure on apportionment of retirement benefits provided to CHQ in respect of CIA employees (as per discussion with AAI).

14.6.2. AAI has submitted that Ministry of Civil Aviation has approved pay revision for executives and non-executives w.e.f. 01.01.2017 and the impact of pay revision is 37.16% for a typical middle level executive. Accordingly, AAI requested the Authority to consider pay revision impact of 37.16% increase in Payroll expense while finalizing tariffs of CIA. In view of the above, an increase of 37.16% is proposed for projection of the pay roll expenditure for FY 2017-18.

14.6.3. The Authority had noted that payroll cost components – Salaries and Wages, medical benefits and PF contribution have been increased by AAI at the growth



rate of 9% annually for 2<sup>nd</sup> control period except for FY 2017-18. These growth rates appear to be on a higher side. The Authority had proposed a growth rate of 7% for FY 2016-17 in the above payroll components and growth rate of 5% (in line with average inflation rate) for FY 2018-19, FY 2019-20 and FY 2020-21.

14.6.4. AAI has submitted apportionment of CHQ/RHQ expenses on cost basis. The Authority had proposed to adopt CHQ/RHQ overheads apportionment for the 2<sup>nd</sup> control period based on actual revenue basis data provided by AAI. The Authority had proposed to increase CHQ/RHQ overheads apportionment costs (admin & general expenditure of CHQ/RHQ) by 5% per annum for the 2<sup>nd</sup> control period as submitted by AAI.

#### **Segregation of aeronautical expenses**

14.7. The Authority had proposed to adopt ratio of 95% as aeronautical costs to allocate payroll expenses after excluding cargo employees' costs.

14.8. The Authority noted that apportionment of retirement benefits provided in CHQ in respect of CIA and apportionment of admin CHQ expenses have been considered as 100% aeronautical expenses. The Authority had proposed to use the ratio of 90% to 10% for aeronautical and non-aeronautical allocation for apportionment of admin CHQ/RHQ expenses after excluding cargo employees' costs on revenue basis. The Authority had proposed to use the ratio of 95% to 5% for aeronautical and non-aeronautical allocation for retirement benefits provided at CHQ in respect of employees at CIA after excluding cargo employees' costs based on ratio of cargo employees to total airport employees.

14.9. The Authority noted that the expenses related to vehicles such as R&M – Vehicles, vehicle insurance, vehicle hire charges etc. have been allocated based on the vehicle ratio.

14.10. Terminal Area ratio for calculation of aeronautical assets is proposed as 92.5%. This ratio has been applied to specific expenses in R&M – Civil, R&M – Electrical, R&M Furniture & Fittings, R&M Electronics, municipal taxes, advertisement and conservancy charges.



- 14.11. Quarter ratio for residential building as per Clause 6.2.4 has been applied to specific expenses related to residential buildings in R&M – Civil, R&M – Electrical, maintenance and cleaning (watch and ward expenses) and other miscellaneous expenses to determine aeronautical assets.
- 14.12. Operational building ratio of 94.9% (aeronautical) to 5.1% (non-aeronautical) has been used to allocate assets related to operational building. This ratio has been applied to specific expenses related to operational building in R&M – Electrical.
- 14.13. The Authority noted that common expenses for ANS employees have not been deducted from the expenses of 1<sup>st</sup> and 2<sup>nd</sup> control period. As per the clarifications provided by AAI dated 26.08.2017, AAI submitted that ANS staff cost is not there in Chennai Airport hence common expenses for the same are not deducted.
- 14.14. The Authority also noted that cargo expenses have not been included as part of MYTP calculations and requested clarifications from AAI for the same. As per the clarifications provided by AAI dated 26.08.2017 and 12.10.2017, AAI submitted that cargo assets, expenses and income have not been considered in the 2nd control period as AAICLAS would file proposal for cargo tariff for 2nd control period separately. However, as per further submission from AAI dated 12.10.2017, the Authority had noted that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for CIA. Hence, the Authority decides to include cargo operational expenditure from 01.04.2016 till 31.03.2017 and decides to exclude them from 01.04.2017 till 31.03.2021 while determination of tariff in the second control period. Further, the Authority will review its decision while truing up in the 3rd control period based on the decisions taken by the AAI.
- 14.15. The Authority has noted that CIA has installed a solar power plant of 15 MWp in FY 2016-17. As per the clarifications received on 08.12.2017, AAI submitted that the amount saving through solar power generation would be to the tune of ₹ 1.5 cr. in a year. Further, AAI submitted that the amount of savings in solar power has been offset by new facilities and increase in electricity charges. In addition to AAI clarification, the Authority noted that AAI has proposed no increase in the power charges in the 2nd



control period. Hence, the Authority had proposed to accept the power charges as submitted by AAI for the 2nd control period.

### Correction in projection

14.16. The Authority noted that AAI has included financing charges as part of O&M expenses for the 2<sup>nd</sup> control period. The Authority had proposed not to include interest payments on long term debt as a component of O&M expenses.

14.17. The Authority noted that there were summation errors in expenses related to R&M Furniture and Fittings and post and courier charges. As per the clarifications provided by AAI on 26.08.2017, the Authority had proposed to revise these expenses.

14.18. The O&M expenditure for FY 2015-16 which includes both aeronautical and non-aeronautical expense is given in the table below:

Table 54 – Total O&M expenditure for FY 2015-16 as proposed by the Authority

No.	Particulars (₹ crore)	2015-16
1	Pay roll Expenditure of CIA	124.6
2	Expenditure for CIA employees' retirement benefits allocated at CHQ	20.8
A	<b>Total Pay roll Expenditure (1+2)</b>	<b>145.5</b>
4	Administrative and General Expenditure	4.2
5	Apportionment of administration & General expenditure of CHQ/RHQ	27.2
B	<b>Total Administration &amp; General Expenditure(4+5)</b>	<b>31.4</b>
C	<b>Repairs and Maintenance Expenditure (Total)</b>	<b>65.7</b>
6	Power Charges	77.8
7	Water Charges	1.7
8	Outsourcing expenses	15.1
D	<b>Utility and Outsourcing Expenditure (6+7+8)</b>	<b>94.6</b>
E	<b>Other Outflows</b>	<b>17.6</b>
	<b>Total (A+B+C+D+E)</b>	<b>354.7</b>

14.19. Expense allocation proposed to be considered by the Authority after above changes for 2<sup>nd</sup> control period is tabulated below:

Table 55 – Expense allocation between aeronautical and non-aeronautical services proposed by the Authority



Sr. No.	Particulars	Aero Expense	Non-Aero & Cargo Expense
1	Payroll Expenses - Non-CHQ	84%	16%
2	Payroll Retirement benefit expenses Apportionment – CHQ	85%	15%
3	Admin and General Expenses – Non CHQ	84%	16%
4	Admin and General overheads Expenses Apportionment – CHQ/RHQ	72%	28%
5	R&M Expenses	91%	9%
6	Utility and Outsourcing Charges	87%	13%
7	Other Outflows	87%	13%
	<b>Total</b>	<b>86%</b>	<b>14%</b>

14.20. In view of above, the O&M expenditure is reworked for the purpose of determination of aeronautical tariffs for the 2<sup>nd</sup> control period under Hybrid Till and given in table below.

Table 56 - Summary of Aeronautical O&M expenditure for the 2<sup>nd</sup> control period as per Hybrid Till as considered by the Authority in the Consultation Paper

No.	Particulars (₹ crore)	2016-17*	2017-18	2018-19	2019-20	2020-21
1	Pay roll Expenditure of CIA	127.5	153.7	161.4	169.5	178.0
2	Expenditure for CIA employees' retirement benefits allocated at CHQ	21.3	26.0	27.2	28.6	30.0
<b>A</b>	<b>Total Pay roll Expenditure (1+2-3)</b>	<b>148.8</b>	<b>179.7</b>	<b>188.7</b>	<b>198.1</b>	<b>208.0</b>
4	Administrative and General Expenditure	4.4	4.3	4.7	5.2	5.7
5	Apportionment of administration & General expenditure of CHQ/RHQ	26.3	21.7	22.8	23.9	25.1
<b>B</b>	<b>Total Administration &amp; General Expenditure(4+5)</b>	<b>30.7</b>	<b>26.0</b>	<b>27.5</b>	<b>29.1</b>	<b>30.8</b>
<b>C</b>	<b>Repairs and Maintenance Expenditure (Total)</b>	<b>71.3</b>	<b>72.3</b>	<b>79.5</b>	<b>87.5</b>	<b>96.2</b>
6	Power Charges	77.7	69.1	69.1	69.1	69.1
7	Water Charges	1.7	1.7	1.7	1.7	1.7
8	Outsourcing Charges	15.8	14.5	15.9	17.5	19.3
<b>D</b>	<b>Utility and Outsourcing Expenditure (6+7)</b>	<b>95.3</b>	<b>85.3</b>	<b>86.7</b>	<b>88.3</b>	<b>90.1</b>
<b>E</b>	<b>Other Outflows</b>	<b>13.6</b>	<b>12.2</b>	<b>12.8</b>	<b>13.4</b>	<b>14.1</b>
	<b>Total (A+B+C+D+E)</b>	<b>359.6</b>	<b>375.4</b>	<b>395.2</b>	<b>416.4</b>	<b>439.2</b>



\* FY 2016-17 includes cargo operational expenditure

14.21. The Authority had proposed to undertake an independent study to assess the reasonableness of the operation and maintenance expenditure. The Authority would consider the results of the study to true-up the operation and maintenance expenditure while tariff determination for the 3<sup>rd</sup> control period.

14.22. It appears that O&M expenditure at CIA is on higher side and expects AAI to reduce the O&M expenditure over a period of time.

14.23. Based on the material before it and its analysis, the Authority proposed the following:

14.23.1. To consider the operational and maintenance expenditure as given in Table 56 above, for the purpose of determination of aeronautical tariffs for the 2nd control period.

14.23.2. That AAI should endeavour to reduce O&M expenditure over a period of time.

14.23.3. To true up the O&M expenditure for FY 2016-17 to FY 2020-21 of the 2nd control period based on the actuals at the time of determination of tariffs for the 3rd control period.

#### ***Stakeholders' comments and Authority's examination***

##### ***Comments from IATA***

14.24. IATA submitted that while it views that AERA is adopting lower rates than those proposed by AAI (5% instead of 9%), we believe that AERA should be carrying out a study to determine the efficiency levels of the operating costs at the airport, as that would determine the scope for efficiency targets. This is of particular importance since AERA mentions that operating costs are on the high side. In this regard, we believe that AERA proposal 10c should be modified so that the true up should be subject a scrutiny of costs, rather than solely truing up on the basis of actual costs.

##### ***Authority's examination of IATA's comments***

14.25. The Authority has noted IATA's comments on the scrutiny of operational



expenditure. The Authority decides to undertake an independent study to assess the reasonableness of the operation and maintenance expenditure. The Authority would consider the outcome of the study and if necessary, appropriate benchmarks will be used to true-up the operation and maintenance expenditure while tariff determination for the 3<sup>rd</sup> control period.

***AAI's submission on Operation and Maintenance Expenditure***

14.26. On the operational expenditure (R&M expenditure), AAI requested the Authority to consider the operational expenditure which has not been considered in CP for which details of the award letter of AOCC expenses are submitted. AAI submitted that the operational expenditure of ₹ 8.2 cr. is the expenditure towards manpower for handling inline baggage of Air India which has been excluded from the FY 2014-15 R&M expenses of 1st control period. Accordingly, AAI requested the Authority to consider this operational expenditure while truing-up 1st control period.

***Authority's examination of AAI's submission***

14.27. The Authority has noted AAI's submission on revision of operation and maintenance expenditure. The Authority notes that it has updated the AOCC expenses for 1<sup>st</sup> control period as per para 5.50 and para 5.51. For the 2<sup>nd</sup> control period, AAI submitted vide their response dated 26.03.2018 that AOCC expenses for FY 2015-16 should have been ₹ 14.2 cr. as per the payment terms however only ₹ 8.1 cr. has been booked in FY 2015-16. AAI submitted that the balance amount of ₹ 6.1 cr. (₹ 14.2 cr. – ₹ 8.1 cr.) may be included in the AOCC expenses for FY 2016-17. AAI has also submitted the payment terms of contract dated 28.03.2013 between the agency providing AOCC services and AAI. Further, another contract dated 24.08.2017 between the agency providing AOCC services and AAI has been shared with the Authority. The Authority notes from AAI's submission that the AOCC expenses are as per the actual payment terms in the contract and hence, decides to revise the R&M Electronics expenses for 2<sup>nd</sup> control period as per the table below:



in ₹ cr.	2016	2017	2018	2019	2020	2021
R&M Electronics expenses without AOCC	7.7	8.5	9.3	10.3	11.3	12.4
R&M Electronics - Cargo expenses (added for FY17)		0.3				
AOCC expenses - Contract No. 1	(14.2-6.1) = 8.1	(14.2+6.1) = 20.3	14.2	14.2	14.2	14.2
AOCC expenses - Contract No. 2				0.5	0.3	0.3
<b>Total R&amp;M Electronic expenses (revised)</b>	<b>15.8</b>	<b>29.2</b>	<b>23.5</b>	<b>25.0</b>	<b>25.8</b>	<b>26.9</b>

14.28. The Authority has noted that CIA has installed a solar power plant of 6.5 MWp in FY 2020-21. As per the clarifications received on 26.03.2018, AAI submitted that the work would be completed in FY 2020-21 and additional facilities like terminal building of Chennai airport would come up in the FY 2020-21, so the power cost would increase rather than there would be any saving. In addition to AAI clarification, the Authority noted that AAI has proposed no increase in the power charges in the 2nd control period. Hence, the Authority decides to accept the power charges as submitted by AAI for the 2nd control period.

14.29. Revise O&M expenditure for CIA for 2<sup>nd</sup> control period as considered by the Authority has been provided in the table below:

Table 57 - Summary of Aeronautical O&M expenditure for the 2<sup>nd</sup> control period as per Hybrid Till as considered by the Authority in the Order

No.	Particulars (₹ crore)	2016-17*	2017-18	2018-19	2019-20	2020-21
1	Pay roll Expenditure of CIA	127.5	153.7	161.4	169.5	178.0
2	Expenditure for CIA employees' retirement benefits allocated at CHQ	21.3	26.0	27.2	28.6	30.0
A	<b>Total Pay roll Expenditure (1+2-3)</b>	<b>148.8</b>	<b>179.7</b>	<b>188.7</b>	<b>198.1</b>	<b>208.0</b>
4	Administrative and General Expenditure	4.4	4.3	4.7	5.2	5.7
5	Apportionment of administration & General expenditure of CHQ/RHQ	26.3	21.7	22.8	23.9	25.1
B	<b>Total Administration &amp; General</b>	<b>30.7</b>	<b>26.0</b>	<b>27.5</b>	<b>29.1</b>	<b>30.8</b>



No.	Particulars (₹ crore)	2016-17*	2017-18	2018-19	2019-20	2020-21
	<b>Expenditure(4+5)</b>					
<b>C</b>	<b>Repairs and Maintenance Expenditure (Total)</b>	<b>87.9</b>	<b>82.4</b>	<b>89.7</b>	<b>97.0</b>	<b>105.3</b>
6	Power Charges	77.7	69.1	69.1	69.1	69.1
7	Water Charges	1.7	1.7	1.7	1.7	1.7
8	Outsourcing Charges	15.8	14.5	15.9	17.5	19.3
<b>D</b>	<b>Utility and Outsourcing Expenditure (6+7)</b>	<b>95.3</b>	<b>85.3</b>	<b>86.7</b>	<b>88.3</b>	<b>90.1</b>
<b>E</b>	<b>Other Outflows</b>	<b>13.6</b>	<b>12.2</b>	<b>12.8</b>	<b>13.4</b>	<b>14.1</b>
	<b>Total (A+B+C+D+E)</b>	<b>376.3</b>	<b>385.5</b>	<b>405.4</b>	<b>426.0</b>	<b>448.3</b>

\* FY 2016-17 includes cargo operational expenditure

#### **Decision No. 11. Operation and Maintenance expenditure**

- 11.a. The Authority decides to consider the operational and maintenance expenditure as given in Table 57 above, for the purpose of determination of aeronautical tariffs for the 2<sup>nd</sup> control period.
- 11.b. The Authority expects AAI to reduce O&M expenditure over a period of time.
- 11.c. The Authority decides to true up the O&M expenditure for FY 2016-17 to FY 2020-21 of the 2<sup>nd</sup> control period based on the actuals at the time of determination of tariffs for the 3<sup>rd</sup> control period.
- 11.d. The Authority decides to undertake an Independent study to assess the reasonableness of the operation and maintenance expenditure. The Authority would consider the results of the study to true-up the operation and maintenance expenditure at the time of tariff determination for the 3<sup>rd</sup> control period.

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## **15. Taxation**

15.1. AAI has submitted tax calculations using provisional tax rate of 34.60 % for the 2<sup>nd</sup> control period. AAI had calculated the tax considering depreciation rates applicable under AAI depreciation policy.

### **Authority's Examination**

#### **Adjustment for 30% of non-aeronautical revenues**

15.2. AAI vide their submissions dated 06.03.2017 calculated tax for aeronautical services under Hybrid Till taking into account 30% of revenues from services other than regulated services as part of total revenues. As per MIAL Order No. 32/2012-13 (Decision No. XV), the Authority had decided to consider corporate tax pertaining to earnings from aeronautical services under shared till. Therefore, the Authority had proposed to exclude non-aeronautical component from revenues considered while determining tax for aeronautical services.

#### **Adjustment of aeronautical capital expenditure**

15.3. The Authority had proposed to consider aeronautical capital expenditure of ₹ 1,434.2 crores as given in Table 39 while calculating depreciation as per IT Act

#### **Adjustment of O&M Expenses**

15.4. The Authority had proposed to consider O&M expenses as given in Table 57.

#### **Adjustment of aeronautical revenues on account of CGF lease and rent correction**

15.5. The Authority had proposed to modify total aeronautical revenues considering lease rentals from CGF as aeronautical as mentioned in para 13.10.

#### **Continuation of existing tariffs in FY 2016-17**

15.6. The Authority decides to consider existing tariffs while calculating aeronautical revenues upto 30.04.2018 as the revised tariffs are decided to be applicable from 01.05.2018 onwards.

#### **Revised Tax as considered by the Authority**

15.7. The amount of tax as per submission of AAI and that arrived by the Authority after



considering the above mentioned changes is given below:

Table 58 - Amount of Tax for aeronautical services as per AAI submission and as calculated by the Authority for the 2<sup>nd</sup> control period - Hybrid Till

Income Tax (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21	Total
As per AAI	73.7	28.6	8.2	0.0	0.0	110.5
As per Authority	145.3	89.8	0.0	0.0	0.0	235.1

15.8. The detailed calculation of tax for aeronautical service by the Authority is given in table below:

Table 59 - Amount of Tax for aeronautical services as considered by the Authority for the 2<sup>nd</sup> control period - Hybrid Till in the Order

Particular (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Aeronautical Revenues	981.1	818.2	279.8	241.0	257.4
Aeronautical O&M (excluding CHQ/ RHQ Overheads)	328.7	337.9	355.4	373.5	393.2
CHQ/ RHQ Overheads	47.5	47.6	50.0	52.5	55.1
Depreciation as per IT Act	185.1	173.2	160.0	155.7	215.4
PBT	419.7	259.5	-285.6	-340.7	-406.3
<b>Tax for aeronautical services</b>	<b>145.3</b>	<b>89.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

15.9. The taxes actually paid/ apportioned in the 2<sup>nd</sup> control period are proposed to be trued up after review in the next control period.

#### Decision No. 12. Taxation

12.a. The Authority decides the corporate tax for aeronautical activities as per Table 59 for the 2<sup>nd</sup> control period.

12.b. The Authority decides to true up the difference between the actual/ apportioned corporate tax paid and that estimated by the Authority for the 2<sup>nd</sup> control period during determination of tariffs for the 3<sup>rd</sup> control period.



## 16. Aggregate Revenue Requirement for Second control period

16.1. AAI has submitted Aggregate Revenue Requirement (ARR) the yield per passenger (YPP) for the 2<sup>nd</sup> control period as per Hybrid Till. AAI has shown the true-up value separately from yield calculations for 2<sup>nd</sup> control period. During discussions, AAI had requested for including true-up while calculating tariff for 2<sup>nd</sup> control period.

Table 60 - ARR and Yield as per AAI for the 2<sup>nd</sup> control period – Hybrid Till

Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Average Aeronautical RAB	1,399.1	1,247.3	1,094.8	862.4	1,760.6
Return on Average Aeronautical RAB@14%	195.9	174.6	153.3	120.7	246.5
Aeronautical Operating Expenditure	354.5	382.5	403.5	431.6	462.2
Depreciation on aeronautical RAB	247.3	261.6	264.1	257.5	480.2
Aeronautical Corporate Tax @34.60%	73.7	28.6	8.2	0.0	0.0
Less- 30% of Non-Aeronautical Revenues	85.6	93.9	103.2	113.4	131.7
<b>ARR as per AAI</b>	<b>785.9</b>	<b>753.4</b>	<b>725.9</b>	<b>696.5</b>	<b>1,057.2</b>
<b>Total ARR as per AAI</b>	<b>सत्यमेव जयते</b>				<b>4,018.8</b>
No. of Passengers (as per Actual/Projected)	17,372,012	18,799,032	20,356,346	22,056,488	23,913,225
<b>Discounted ARR</b>	<b>785.9</b>	<b>655.1</b>	<b>548.9</b>	<b>458.0</b>	<b>604.4</b>
<b>True up short fall in 1<sup>st</sup> control period as on 01.04.2016</b>	<b>150.4</b>				
<b>PV of ARR for the control period as on 01.04.2016</b>	<b>आ.वि.आ.वि.प्रा.</b>				<b>3,202.7</b>
<b>Total Passengers during the control period</b>	<b>आ.वि.आ.वि.प्रा.</b>				<b>102,497,103</b>
<b>Yield per passenger for the control period (PV of ARR for the control period/Total passengers during the control period)</b>	<b>आ.वि.आ.वि.प्रा.</b>				<b>312.5</b>

### Authority's examination

16.2. The Authority has examined the calculations of AAI for various elements of the regulatory building blocks that contribute to the calculation of ARR.

16.3. The Authority has estimated the following ARR and yield for the 2<sup>nd</sup> control period



under Hybrid Till based on various submissions of AAI and proposals considered by Authority in earlier sections on the building blocks.

Table 61 - ARR and Yield for the 2<sup>nd</sup> control period – Hybrid Till as considered by the Authority in the Order

Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Average Aeronautical RAB	2,020.1	1,858.3	1,803.7	1,815.6	2,270.3
Return on Average Aeronautical RAB@14%	282.8	260.2	252.5	254.2	317.8
Aeronautical Operating Expenditure	376.3	385.5	405.4	426.0	448.3
Depreciation on aeronautical RAB	138.1	132.2	142.8	146.7	182.9
Aeronautical Corporate Tax @34.6%	145.3	89.8	0.0	0.0	0.0
Less – 30% of Non-Aeronautical Revenues	73.0	79.8	87.2	95.3	104.2
True up short fall (+)/ excess (-) in 1 <sup>st</sup> control period as on 01.04.2016	-874.4				
ARR as per Authority	-4.9	787.9	713.5	731.5	844.9
Total ARR as per Authority					3,072.9
Discounted ARR	-4.9	691.1	549.0	493.8	500.2
PV of ARR for the control period as on 01.04.2016					2,229.2
No. of Passengers (as per Projected)	18,362,215	20,034,914	21,847,240	23,828,439	25,994,599
Total Passengers during the control period					110,067,406
Yield per passenger for the control period (PV of ARR for the control period/Total passengers during the control period)					202.5
Target yield per passenger	244.3	254.5	265.2	276.3	287.9
Target Aeronautical Revenues	448.6	510.0	579.4	658.4	748.3
PV of Target Aeronautical Revenues					2,229.2

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## 17. Annual Tariff Proposal

- 17.1. AAI has submitted ATP(s) for all years of the 2<sup>nd</sup> control period.
- 17.2. AAI has submitted the revision in tariff w.e.f. 01.04.2017 till 31.03.2021.
- 17.3. Accordingly AAI has submitted the ATP(s) for 2<sup>nd</sup> control period in respect of CIA.

### Authority's Examination

17.4. As per para 7.11, the Authority decides to include cargo revenues from 01.04.2016 till 31.03.2017 and decides to exclude them from 01.04.2017 till 31.03.2021 while determination of tariff in the second control period. As there is no clarity on the revenue sharing mechanism between AAI and AAICLAS, the Authority has decided to not consider the potential revenue from cargo operations at this juncture. The Authority will take a view on this while truing up in the 3rd control period based on the decisions that may be taken by the AAI in the matter. The Authority may also make necessary assumptions regarding the revenue that should accrue to AAI in case the revenue share arrangement does not truly reflect arms-length transactions between AAI and its subsidiary.

17.5. The Authority noted that if the existing tariffs applicable at CIA were kept constant for the second control period, there will be an excess of ₹ 1,318.6 crore vis-à-vis ARR. The excess can either be reduced by decreasing various aeronautical charges such as Landing, Parking & Housing and fuel throughput or decreasing UDF/ PSF (F) or both the aeronautical and UDF/ PSF. Even with the reduction in UDF/ PSF (F) rates as proposed by AAI on 18.04.2017 (₹ 200 per domestic passenger and ₹ 400 per international passengers) and constant landing, parking & housing charges and fuel throughput charges there was still aeronautical revenue surplus of ₹ 1,249.9 crore is available vis-à-vis ARR.



Table 62 - Projected Revenue, Target Revenue and shortfall/ excess based on AAI proposed tariffs for the 2<sup>nd</sup> control period applicable from 01.04.2018 in the Consultation Paper

Projected Aero Revenue based on AAI proposed tariffs (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Landing (A)	299.9	305.6	323.8	343.2	363.7
Parking and Housing (B)	7.3	7.5	8.0	8.5	9.0
UDF/ PSF (F) as per existing rates (C)	282.9	301.8	325.6	351.3	379.2
FTP+ITP and lease rentals (D)	131.1	133.6	140.6	148.1	156.1
Ground Handling Charges and lease rentals (E)	49.6	50.6	53.6	56.8	60.2
CUTE (F)	19.3	21.0	22.9	25.0	27.3
Cargo Charges (G)	193.8	0.0	0.0	0.0	0.0
<b>Total Projected Revenues with constant UDF/ PSF (F) (H = A+B+C+D+E+F+G)</b>	<b>983.8</b>	<b>820.0</b>	<b>874.5</b>	<b>933.0</b>	<b>995.7</b>
<b>Target Aero Revenue</b>	<b>458.1</b>	<b>520.8</b>	<b>591.7</b>	<b>672.4</b>	<b>764.3</b>
Short fall (+)/ Excess (-) in revenue, i.e. difference (Projected – Permissible)	-525.7	-299.2	-282.8	-260.5	-231.4
<b>PV value of shortfall (+)/ excess (-) as on 01.04.2016 with Discount rate (14.00%)</b>	<b>-525.7</b>	<b>-262.5</b>	<b>-217.6</b>	<b>-175.8</b>	<b>-137.0</b>
<b>Total PV of shortfall (+)/ excess (-) as on 01.04.2016 for the control period</b>	<b>-1,318.6</b>				
UDF/ PSF (F) with revised rates proposed by AAI (I)	282.9	301.8	276.1	299.6	325.2
<b>Total Projected Revenues with increased UDF (J = H-C+I)</b>	<b>983.8</b>	<b>820.0</b>	<b>825.0</b>	<b>881.2</b>	<b>941.6</b>
<b>Target Aero Revenue</b>	<b>450.8</b>	<b>512.5</b>	<b>582.3</b>	<b>661.7</b>	<b>752.1</b>
Short fall (+)/ Excess (-) in revenue, i.e. difference (Projected – Permissible)	-533.0	-307.5	-242.7	-219.5	-189.5
<b>PV value of short fall (+)/ excess (-) revenue as on 01.04.2016 with Discount rate (14.00%)</b>	<b>-533.0</b>	<b>-269.8</b>	<b>-186.8</b>	<b>-148.2</b>	<b>-112.2</b>
<b>Total PV of short fall (+)/ excess (-) difference as on 01.04.2016 for the control period</b>	<b>-1,249.9</b>				

17.6. AAI vide their submission dated 14.12.2017 provided the revised rate card for CIA as shown in Table 63 below. The Authority noted with the revised tariffs as per AAI applicable from 01.04.2018, there will be an excess of ₹ 546.2 crore vis-à-vis ARR.



Hence, the Authority had proposed to reduce the tariffs as submitted by AAI such that the ARR is recovered through the revised tariffs. Accordingly, the UDF/ PSF (F) per departing passenger was revised to NIL and other aeronautical tariffs had been revised as per Table 63 which would have been applicable from 01.04.2018.

17.7. The revised tariffs which would be applicable from 01.04.2018 as submitted by AAI and as proposed by the Authority are given in table below:

Table 63 - Revised aeronautical tariffs as submitted by AAI and as proposed by the Authority in the Consultation Paper

Particular	Existing Tariff	Revised tariff by AAI submitted on 18.04.2017	Revised tariff by AAI submitted on 14.12.2017	Revised tariff proposed by Authority
<b>Rate per landing - International Flight</b>				
Up to 100 MT	₹ 650.4 per MT			
Above 100 MT	₹ 65,040 + ₹ 874.0 per MT in excess of 100 MT			
Up to 25 MT		₹ 550 per MT	₹ 248 per MT	₹ 60 per MT
Above 25 MT up to 50 MT		₹ 13,750 + ₹ 600 per MT in excess of 25 MT	₹ 6,200 + ₹ 270 per MT in excess of 25 MT	₹ 1,500 + ₹ 65 per MT in excess of 25 MT
Above 50 MT up to 100 MT		₹ 28,750 + ₹ 700 per MT in excess of 50 MT	₹ 12,950 + ₹ 315 per MT in excess of 50 MT	₹ 3,125 + ₹ 75 per MT in excess of 50 MT
Above 100 MT up to 200 MT		₹ 63,750 + ₹ 800 per MT in excess of 100 MT	₹ 28,700 + ₹ 360 per MT in excess of 100 MT	₹ 6,875 + ₹ 90 per MT in excess of 100 MT
Above 200 MT		₹ 1,43,750 + ₹ 900 per MT in excess of 200 MT	₹ 64,700 + ₹ 405 per MT in excess of 200 MT	₹ 15,875 + ₹ 100 per MT in excess of 200 MT
<b>Rate per Landing - Domestic Flight</b>				
Up to 100 MT	₹ 331.2 per MT			
Above 100 MT	₹ 33,120 + ₹ 445.1 per MT in excess of 100 MT			
Up to 25 MT		₹ 250 per MT	₹ 113 per MT	₹ 30 per MT
Above 25 MT up to 50 MT		₹ 6,250 + ₹ 330 per MT in excess of 25 MT	₹ 2,825 + ₹ 149 per MT in excess of 25 MT	₹ 750 + ₹ 35 per MT in excess of 25 MT
Above 50 MT up to 100		₹ 14,500 + ₹ 380	₹ 6,550 + ₹ 171 per	₹ 1,625 + ₹ 40 per



Particular	Existing Tariff	Revised tariff by AAI submitted on 18.04.2017	Revised tariff by AAI submitted on 14.12.2017	Revised tariff proposed by Authority
		per MT in excess of 50 MT	MT in excess of 50 MT	MT in excess of 50 MT
Above 100 MT up to 200 MT		₹ 33,500 + ₹ 430 per MT in excess of 100 MT	₹ 15,100 + ₹ 194 per MT in excess of 100 MT	₹ 3,625 + ₹ 45 per MT in excess of 100 MT
Above 200 MT		₹ 76,500 + ₹ 480 per MT in excess of 200 MT	₹ 34,500 + ₹ 216 per MT in excess of 200 MT	₹ 8,125 + ₹ 55 per MT in excess of 200 MT
<b>Housing Charges</b>				
Up to 100 MT	₹ 17.70 per MT per hour	₹ 21.1 per MT per hour	₹ 10.6 per MT per hour	₹ 2.3 per MT per hour
Above 100 MT	₹ 1,770 + ₹ 23.50 per MT per hour in excess of 100 MT	₹ 2,110 + 28.20 per MT per hour in excess of 100 MT	₹ 1,060 + ₹ 14.1 per MT per hour in excess of 100 MT	₹ 230 + ₹ 3.1 per MT per hour in excess of 100 MT
<b>Parking Charges</b>				
Up to 100 MT	₹ 8.90 per MT per hour	₹ 10.8 per MT per hour	₹ 5.3 per MT per hour	₹ 1.2 per MT per hour
Above 100 MT	₹ 890 + ₹ 11.80 per MT per hour in excess of 100 MT	₹ 1,080 + ₹ 14.2 per MT per hour in excess of 100 MT	₹ 530 + ₹ 7.1 per MT per hour in excess of 100 MT	₹ 120 + ₹ 1.6 per MT per hour in excess of 100 MT
<b>Throughput Charges</b>				
Rate per KL	₹ 1,774.4	₹ 1,774.4	₹ 630.0	₹ 196.0
<b>Passenger Service Fee (PSF) – Facilitation</b>				
Domestic Passenger (per embarking passenger)	Nil	₹ 200	₹ 100	Nil
International Passenger (per embarking passenger)	Nil	₹ 400	₹ 100	Nil
<b>User Development Fee (UDF) (UDF proposed by Authority instead of PSF(FC) above)</b>				
Domestic Passenger (per embarking passenger)	₹ 166	Nil	Nil	Nil
International Passenger (per embarking passenger)	₹ 667	Nil	Nil	Nil
<b>Passenger Service Fee (PSF) – Security*</b>				
Domestic Passenger	₹ 130	₹ 130	₹ 130	₹ 130



Particular	Existing Tariff	Revised tariff by AAI submitted on 18.04.2017	Revised tariff by AAI submitted on 14.12.2017	Revised tariff proposed by Authority
(per embarking passenger)	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25
International Passenger (per embarking passenger)	₹ 130	₹ 130	₹ 130	₹ 130
	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25

\* PSF-Security is determined by MoCA and the rates as provided by MoCA from time to time shall be applicable

17.8. The Authority had noted from the proposed tariffs in the Consultation Paper that:

17.8.1. UDF charges per domestic and international passenger had been made NIL

17.8.2. Domestic and international landing charges are reduced by approximately 89%. Further, the Authority has noted that, as an approximation, proposed landing tariffs of domestic ATM of 70 MT (approximate weight for majority of domestic aircrafts) had been reduced by 89% from existing tariffs.

17.8.3. Parking and housing landing charges were reduced by approximately 89%

17.8.4. Fuel throughput charges were reduced by approximately 89%

The exact rates are specified in the tariff card.

17.9. Additionally, from 01.04.2018, AAI as per their submission dated 14.12.2017 has proposed no increase in the tariffs for the rest of the control period. The Authority had proposed to accept no increase in tariffs for rest of the second control period as per the submission of AAI.

17.10. The estimated aeronautical revenues based on tariffs as proposed by the Authority in the Consultation Paper is indicated in Table 64.

Table 64 - Projected Revenue, Target Revenue and shortfall/ excess as per the Authority for the 2<sup>nd</sup> control period in the Consultation Paper

Projected Aero Revenue based on the Authority proposed tariffs (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Landing (A)	299.9	305.6	35.7	37.9	40.1
Parking and Housing (B)	7.3	7.5	0.9	0.9	1.0
UDF/PSF (F) as per existing rates (C)	282.9	301.8	0.0	0.0	0.0



Projected Aero Revenue based on the Authority proposed tariffs (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
FTP+ITP and lease rentals (D)	131.1	133.6	39.3	40.1	41.0
Ground Handling charges and lease rentals (E)	49.6	50.6	53.6	56.8	60.2
CUTE (F)	19.3	21.0	22.9	25.0	27.3
Cargo charges (G)	193.8	0.0	0.0	0.0	0.0
<b>Total Projected Revenue as per existing UDF/PSF (H = A+B+C+D+E+F+G)</b>	<b>983.8</b>	<b>820.0</b>	<b>152.4</b>	<b>160.7</b>	<b>169.6</b>
<b>Target Aero Revenue</b>	<b>408.3</b>	<b>464.2</b>	<b>527.4</b>	<b>599.3</b>	<b>681.2</b>
Short fall (+)/ Excess (-) in revenue, i.e. difference (Projected – Permissible)	-575.5	-355.8	375.0	438.7	511.6
<b>PV value shortfall (+)/ excess (-) as on 01.04.2016 with Discount rate (14.00%)</b>	<b>-575.5</b>	<b>-312.1</b>	<b>288.6</b>	<b>296.1</b>	<b>302.9</b>
<b>Total PV shortfall (+)/ excess (-) of difference as on 01.04.2016 for the control period</b>	<b>0.0</b>				

17.11. The Authority noted that AAI has taken 6% inflation rate while determining the Yield per Passenger for tariff years in the 2<sup>nd</sup> control period and X factor of 0.01% from FY 2018-19 onwards. As per RBI issued Results of the Survey of Professional Forecasters on Macroeconomic Indicators – Round 45, the WPI inflation is forecasted to be 4.2% for the next 5 years. The Authority had proposed to revise WPI for the 2<sup>nd</sup> control period to 4.2%.

17.12. The Authority had proposed that any shortfall/ excess in revenues for the 2<sup>nd</sup> control period based on proposed tariffs by AAI to be considered while determining aeronautical tariffs for the 3<sup>rd</sup> control period.

17.13. The Authority had noted that ASQ rating at CIA has been less than 3.75 for a few quarters of 1<sup>st</sup> control period. However, the Authority further had noted that in majority of the quarters in 1<sup>st</sup> control period the quarterly ASQ rating is more than 3.75 as required under Section 6.14.3 of Airport Guidelines. The Authority expects AAI to maintain ASQ rating above 3.75 in 3<sup>rd</sup> control period. Details of the ASQ ratings are

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provided below.

Table 65 – Quarterly ASQ rating of CIA during the 1<sup>st</sup> control period

Quarter	2012	2013	2014	2015	2016
Q1	3.27	3.80	4.10	4.42	4.66
Q2	3.02	3.86	4.30	4.46	4.66
Q3	3.07	3.93	4.31	4.50	4.62
Q4	3.47	4.16	4.31	4.51	4.57
Average	3.21	3.94	4.26	4.47	4.63

17.14. Based on the material before it and its analysis, the Authority proposed the following:

17.14.1. To accept Annual Tariff Proposals as given in Table 63 (and Annexure) for determination of tariff during 2nd control period. Detailed tariff card were provided in Annexure for stakeholder comments.

17.14.2. To continue with waiver of landing charges for (a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators (b) Helicopters of all types as approved by Govt. of India vide order no. G.17018/7/2001- AAI dated 09.02.2004 in order to encourage and promote intra-regional connectivity at CIA.

17.14.3. To provide waiver of landing and other charges in line with the Order No. 20/ 2016-17 dated 31.03.2017 of the Authority.

17.14.4. To consider shortfall/ excess in revenues for the 2nd control period based on proposed tariffs by AAI while determining aeronautical tariffs for the 3rd control period.

#### **Stakeholders' comments and Authority's examination**

##### **Comments from IATA**

17.15. IATA submitted that as communicated in previous submissions, IATA is against discriminatory practices such as differential pricing or waiver of landing charges for select domestic operations. If the approach is driven by government policy, it should be funded accordingly by the state. However, IATA welcome and support the following:

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17.15.1. AERA's proposal to reduce fuel throughput charge by 89% to 196 Rs/KL.

IATA has long stated that the fuel throughput charge has no cost basis and should be eliminated. With the fuel throughput charge reduced to a much lower level, future increases should not be allowed but instead the aim should be to have it fully removed.

17.15.2. It is timely that AERA recognised the need for the UDF to be removed.

Prefunding of infrastructure investment by users should not be allowed in the first place. Furthermore, from a consumer perspective we consider pre-funding a more costly form of financing when the time value of money of consumers is taken into account. Financial markets exist for the purpose of raising resources efficiently. Abusing airport monopoly by making consumers pre-fund investments is more costly than funding through the financial markets. Instead, the airport should finance any funding gaps from the equity and debt markets, and against future revenue gained from the expanded airport operations.

17.15.3. Overall 89% reductions in Landing, parking, and Housing charges. We encourage AERA to take advantage of the proposed reduction in these charges and eliminate the unjustified differentials in landing charges between domestic and international flights (eliminating imbalances is best dealt with in the context of a reduction in charges, as that eliminates the need to increase charges to the group that was benefiting from the imbalance. The reduction would just be smaller on the domestic charges compared to the international ones).

17.16. AERA has also noted that airport is expected to achieve ASQ rating of 3.75 and above as required under Section 6.14.3 of Airport Guidelines. The quarterly ASQ rating is based on passengers' perception and hence is subjective in nature. We would implore AERA and the airports to look at data driven service performance metrics which would provide a more objective indication of actual service level being captured in a consistent manner. The IATA Level of Service (LoS) is a concept we would recommend



AERA to consider adopting for airport passenger terminals design and service level monitoring. In addition, IATA provides best practice industry guidance regarding Airport Service Level Agreements (SLA) broadly used across best practice airports, and we strongly encourage adoption of our policy in Users and consumers interests by AERA.

***AAI's submission to IATA's comments***

17.17. In response to IATA's comment, AAI submitted that AERA model is based on ARR requirement vis-à-vis Aeronautical revenue earned during the control period. There was over recovery of revenue in first control period and due to change in depreciation rate, the rate in the second control period has been significantly reduced. The Aeronautical Charges would again increase in the third control period. AERA fixed the Aero charges on the basis revenue requirement of Chennai Airport during 2<sup>nd</sup> control period.

***Authority's examination of IATA's comments and AAI's submission on IATA's comments***

17.18. With respect to the tariff differential between international and domestic operations, the Authority notes that the airport has to set up facilities such as immigration, customs, etc. for international operations. For international passengers, facilities required are more and therefore the costs also vary. Hence, the Authority is of the view that international tariffs can be higher than the domestic tariffs.

17.19. The Authority has noted the comment from IATA regarding the fuel throughput charge. The Authority notes that fuel throughput charge has been a part of the contracts between the oil companies and the airport operator. In case fuel throughput charge is not levied, as proposed, then the other aeronautical charges such as landing, parking and housing would have to be increased to recover the ARR. The Authority further notes that it determines the ARR for a control period and the tariff structure, including fuel throughput charge, to recover such ARR is proposed by the airport operator. The Authority has noted IATA's comment on UDF and it appears that there is a misconception between UDF and DF. UDF is not used for pre-funding of infrastructure investment by users but is a mechanism to address the shortfall in revenue after keeping other aeronautical charges at a reasonable level.



17.20. With respect to IATA's comment on service quality levels, the Authority has proposed to undertake a pilot study to assess the monitoring of service quality levels at a few select airports. The study will be objective, technology based and will focus on passenger experience as well as the views of the airlines. Based on the pilot study, the methodology will be defined and the service quality at all major airports will be assessed. The Authority will review the IATA's best practice industry guidance regarding Airport Service Level Agreements while undertaking the study.

**Comments from FIA**

17.21. FIA submitted as under:

17.21.1. In para 14.6, it is stated that the Authority proposes to consider existing tariffs while calculating aeronautical revenues for FY 2016-17 as the revised tariffs as submitted by AAI are proposed to be applicable from 01.04.2018 onwards. FIA submits that as already seen above, due to multiplicity of submission made by AAI, the issuance of the order for the 2nd control period has been inordinately delayed. FIA submits that had the Authority initiated consultation paper with the initial submission of AAI dated 09.03.2016, revised tariff could have been applicable from 01.04.2016 instead of a delay of 2 years (i.e. now proposed to be applicable from 01.04.2018).

17.21.2. In addition to the above submissions, it is respectfully submitted that airlines and consequently, passengers will have to bear the burden of increase in Aeronautical Tariffs as proposed by AAI and the Authority.

17.21.3. It is noteworthy that Airlines and passengers must not be burdened with any tariff to be collected to fund the capital investments of a private concessionaire.

17.21.4. The Authority is aware that airlines have been going through difficult times with high prices of crude oil. Increase in aeronautical tariff as proposed by the Authority will erode airlines capabilities to increase fares to sustain its operational capabilities.



- 17.21.5. FIA reiterates its submission that there is a critical relationship between passenger traffic and growth of the civil aviation sector. What would benefit both the airport operator as well as the airlines is a reasonable and transparent passenger tariff, both direct and indirect – since then the airlines will be able to attract more passengers and the airports would benefit both through higher collection of aeronautical charges as also enhanced non-aeronautical revenue at the airports. In FIA's view, the airport should be regarded as a single business as its aeronautical and non-aeronautical revenues are intertwined.
- 17.21.6. It is submitted that order passed by an administrative authority, affecting the rights of parties, must be a speaking order supported with reasons. It is well settled position of law that:
- 17.21.6.1. Reasons ought to be recorded even by a quasi-judicial authority.
- 17.21.6.2. Insistence on recording of reasons is meant to serve the wider principle of justice that justice must not only be done it must also appear to be done as well.
- 17.21.6.3. Recording of reasons also operates as a valid restraint on any possible arbitrary exercise of judicial and quasi-judicial or even administrative power.
- 17.21.6.4. Insistence on reason is a requirement for both accountability and transparency.
- 17.21.6.5. Reasons in support of decisions must be cogent, clear and succinct.
- 17.21.6.6. A pretence of reasons or 'rubber-stamp reasons' is not to be equated with a valid decision making process.
- 17.21.6.7. Requirement of giving reasons is virtually a part of 'Due Process'.
- 17.21.7. In view of the foregoing submissions, it is submitted that the Authority ought to pass reasoned order on issues mentioned above, after the stakeholders are provided with all the relevant copies of the submissions made



by AAI and any study report conducted by technical experts etc. for making any additional/final submissions on this CP.

17.21.8. In view of the above, it is respectfully prayed that the Authority keeps in mind the interests of the airlines and civil aviation sector before finalizing any decisions regarding increase in Aeronautical Tariffs and other charges. AAI's proposal, if accepted, will have cascading impact on the airlines and consequently, on the civil aviation industry.

***AAI's submission on FIA's comments***

17.22. With respect to FIA's comment, AAI stated that it had submitted MYTP on 1st Control Period on Single Till basis (now trued-up) and 2nd Control Period on Hybrid Till basis in the month of March, 2017. After thorough examination of AAI's proposal by AERA, it came out with Consultation Paper.

17.23. In response to FIA's comments on tariffs at CIA, AAI submitted that there would be huge reduction of tariff of CIA. Landing, parking, housing and throughput charges would reduce by almost 89% and there would be reduction of UDF of both domestic and international passenger.

***Authority's examination of FIA's comments and AAI's submission on FIA's comments***

17.24. It would be incorrect to say that the Authority is not recording reasons for its decisions while issuing the Consultation Paper and its respective Orders. The Authority has always taken cognizance of various representations made by the stakeholders and given detailed reasons for the stand taken by the Authority.

17.25. The Authority has noted FIA's comment on issue of the relevant studies for CIA to the stakeholders for their comments. The Authority shall release reports of relevant studies carried out for CIA for stakeholder comments once these are conducted & finalised.

17.26. With respect to FIA's comment on the CIA tariff proposal, the Authority clarifies that the tariffs of CIA have been reduced significantly in the 2<sup>nd</sup> control period.



### ***Comments from IOCL***

17.27. IOCL submitted that it has no objection on the rate proposed by AERA. However, IOCL submitted that order for revision of throughput charges may only be released on prospective basis.

### ***Comments from HPCL***

17.28. HPCL submitted that AERA has proposed throughput charges at Chennai International Airport as ₹ 196.0 per kL from 01.04.2018 to 31.03.2021. HPCL submitted that it shall abide by the decision taken by AERA, however, any revision in Fuel Throughput charges should be approved on prospective basis only.

### ***Authority's examination of IOCL's and HPCL's comments***

17.29. The Authority decides to levy the revised FTC which shall be effective from 01.05.2018.

### ***AAI's submission on Annual Tariff Proposal***

17.30. Due to changes proposed by AAI in the regulatory blocks in the previous sections, AAI submitted that the ARR of the 2<sup>nd</sup> control period will require upward adjustment by ₹ 260 cr. AAI submitted that the revised proposal of aeronautical charges are as under:

17.30.1. Landing, parking & housing is to be reduced by 89%

17.30.2. Throughput charges is to be reduced by 89%

17.30.3. UDF (Int.) is to be reduced by 85% (proposed by AAI ₹ 74)

17.30.4. UDF (Dom.) is to be reduced by 40% (proposed by AAI ₹ 74).

17.31. Considering the cash deficit and to meet the operational expenditure of Chennai Airport for the FY 2018-19 to FY 2020-21, AERA is requested to consider an additional grant of ₹ 300 cr. in form of UDF for both Domestic and International Passenger.

### ***Authority's examination of AAI's submission***

17.32. The Authority has revised the date of applicability of tariff from 01.04.2018 to 01.05.2018.

17.33. On the proposal of AAI to allow an additional grant of ₹ 300 cr. to meet operational expenditure, the Authority notes that AAI has already recovered in excess of the



estimated ARR till FY 2017-18 with the existing tariffs. Hence, the Authority decides not to provide any additional grant to AAI for the 2<sup>nd</sup> control period.

17.34. The Authority has made changes to certain regulatory blocks such as true-up of capital expenditure, asset additions, operational expenditure, non-aeronautical revenues, depreciation, tax, etc. based on stakeholder comments in the previous sections of this Order. Revised ARR for the 2<sup>nd</sup> control period has been shown in Table 61. Accordingly, to recover the revised ARR, UDF of ₹ 69 per departing passenger has been introduced in the tariff card for CIA which would be applicable from 01.05.2018.

17.35. The revised tariffs which would be applicable from 01.05.2018 as submitted by AAI and as considered by the Authority in the Order are given in table below:

Table 66 - Revised aeronautical tariffs as submitted by AAI and as considered by the Authority in the Order

Particular	Existing Tariff	Revised tariff proposed by Authority
<b>Rate per landing - International Flight</b>		
Up to 100 MT	₹ 650.4 per MT	
Above 100 MT	₹ 65,040 + ₹ 874.0 per MT in excess of 100 MT	
Up to 25 MT		₹ 60 per MT
Above 25 MT up to 50 MT		₹ 1,500 + ₹ 65 per MT in excess of 25 MT
Above 50 MT up to 100 MT		₹ 3,125 + ₹ 75 per MT in excess of 50 MT
Above 100 MT up to 200 MT		₹ 6,875 + ₹ 90 per MT in excess of 100 MT
Above 200 MT		₹ 15,875 + ₹ 100 per MT in excess of 200 MT
<b>Rate per Landing - Domestic Flight</b>		
Up to 100 MT	₹ 331.2 per MT	
Above 100 MT	₹ 33,120 + ₹ 445.1 per MT in excess of 100 MT	
Up to 25 MT		₹ 30 per MT
Above 25 MT up to 50 MT		₹ 750 + ₹ 35 per MT in excess of 25 MT
Above 50 MT up to 100		₹ 1,625 + ₹ 40 per MT in excess of 50 MT



Particular	Existing Tariff	Revised tariff proposed by Authority
Above 100 MT up to 200 MT		₹ 3,625 + ₹ 45 per MT in excess of 100 MT
Above 200 MT		₹ 8,125 + ₹ 55 per MT in excess of 200 MT
<b>Housing Charges</b>		
Up to 100 MT	₹ 17.70 per MT per hour	₹ 2.3 per MT per hour
Above 100 MT	₹ 1,770 + ₹ 23.50 per MT per hour in excess of 100 MT	₹ 230 + ₹ 3.1 per MT per hour in excess of 100 MT
<b>Parking Charges</b>		
Up to 100 MT	₹ 8.90 per MT per hour	₹ 1.2 per MT per hour
Above 100 MT	₹ 890 + ₹ 11.80 per MT per hour in excess of 100 MT	₹ 120 + ₹ 1.6 per MT per hour in excess of 100 MT
<b>Throughput Charges</b>		
Rate per KL	₹ 1,774.4	₹ 196.0
<b>Passenger Service Fee (PSF) – Facilitation</b>		
Domestic Passenger (per embarking passenger)	Nil	Nil
International Passenger (per embarking passenger)	Nil	Nil
<b>User Development Fee (UDF) (UDF proposed by Authority instead of PSF(FC) above)</b>		
Domestic Passenger (per embarking passenger)	₹ 166	₹ 69
International Passenger (per embarking passenger)	₹ 667	₹ 69
<b>Passenger Service Fee (PSF) – Security*</b>		
Domestic Passenger (per embarking passenger)	₹ 130	₹ 130
	\$ 3.25	\$ 3.25
International Passenger (per embarking passenger)	₹ 130	₹ 130
	\$ 3.25	\$ 3.25

\* PSF-Security is determined by MoCA and the rates as provided by MoCA from time to time shall be applicable

17.36. From 01.05.2018, AAI as per their submission dated 14.12.2017 has proposed no increase in the tariffs for the rest of the control period. The Authority decides to accept no increase in tariffs for rest of the second control period as per the submission of AAI.

17.37. The estimated aeronautical revenues is indicated in Table 67 based on tariffs as decided by the Authority in Table 66.

Table 67 - Projected Revenue, Target Revenue and shortfall/ excess as considered by the



Authority for the 2<sup>nd</sup> control period in the Order

<b>Projected Aero Revenue based on the Authority proposed tariffs (₹ crore)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Landing (A)	299.9	305.6	59.7	37.9	40.1
Parking and Housing (B)	7.3	7.5	1.5	0.9	1.0
UDF/PSF (F) as per existing rates (C)	282.9	301.8	96.2	82.2	89.7
FTP+ITP and lease rentals (D)	129.2	131.7	45.8	38.2	39.1
Ground Handling charges and lease rentals (E)	49.6	50.6	53.6	56.8	60.2
CUTE (F)	19.3	21.0	22.9	25.0	27.3
Cargo charges (G)	193.0	0.0	0.0	0.0	0.0
<b>Total Projected Revenue as per existing UDF/PSF (H = A+B+C+D+E+F+G)</b>	<b>981.1</b>	<b>818.2</b>	<b>279.8</b>	<b>241.0</b>	<b>257.4</b>
<b>Target Aero Revenue</b>	<b>448.6</b>	<b>510.0</b>	<b>579.4</b>	<b>658.4</b>	<b>748.3</b>
Short fall (+)/ Excess (-) in revenue, i.e. difference (Projected – Permissible)	-532.6	-308.2	299.6	417.4	490.9
<b>PV value shortfall (+)/ excess (-) as on 01.04.2016 with Discount rate (14.00%)</b>	<b>-532.6</b>	<b>-270.4</b>	<b>230.5</b>	<b>281.7</b>	<b>290.7</b>
<b>Total PV shortfall (+)/ excess (-) of difference as on 01.04.2016 for the control period</b>	<b>0.0</b>				

### Decision No. 13. Tariff rate card

12.a. The Authority decides to accept Annual Tariff Proposals as given in Table 66 (and Annexure) for determination of tariff during 2<sup>nd</sup> control period. The Authority decides no increase in tariffs for rest of the second control period.

12.b. The Authority decides to continue with waiver of landing charges for (a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators (b) Helicopters of all types as approved by Govt. of India vide order no. G.17018/7/2001- AAI dated 09.02.2004 in order to encourage and promote intra-regional connectivity at CIA.

12.c. The Authority decides to provide waiver of landing and other charges in line with the



Order No. 20/ 2016-17 dated 31.03.2017 of the Authority.

12.d. The Authority decides to merge UDF and PSF (facilitation) charges and only UDF charges to be applicable on each domestic and international embarking passenger w.e.f. 01.05.2018.

12.e. The Authority decides to consider shortfall/ excess in revenues for the 2<sup>nd</sup> control period based on proposed tariffs by AAI while determining aeronautical tariffs for the 3<sup>rd</sup> control period.



सत्यमेव जयते



भा.वि.उ.प्रा.

AERA

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भा.वि.आ.प्रा.  
AERA


## 19. Order

19.1. In exercise of powers conferred by Section 13 (1) (a) of the AERA Act, 2008 and based on the above decisions, the Authority hereby determines, the aeronautical tariffs to be levied at CIA from 01.05.2018 till the end of 2<sup>nd</sup> control period are placed at Annexure I.

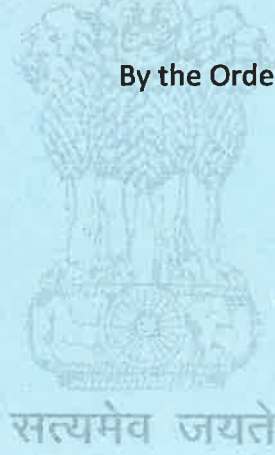
19.2. In exercise of powers conferred by Section 13 (1) (b) of the AERA Act, 2008, read with Rule 89 of the Aircraft Rules, 1937, the Authority hereby determines the rate of UDF as indicated in the rate card at Annexure I. These rates will be effective from 01.05.2018.

19.3. The tariffs determined herein are ceiling rates, exclusive of taxes, if any.

By the Order of and in the Name of the Authority

  
(Puja Jindal)  
Secretary

To,  
Airports Authority of India  
Rajiv Gandhi Bhavan  
Safdarjung Airport  
New Delhi -110 003



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**Annexure 1 – Detailed Tariff Card as per the Authority to be applicable from 01.05.2018 to 31.03.2021**

**I) LANDING CHARGES**

**Rate per landing - International Flight**

Weight of the Aircraft	Rate Per Landing (In ₹)
Up to 25 MT	₹ 60 per MT
Above 25 MT up to 50 MT	₹ 1,500 + ₹ 65 per MT in excess of 25 MT
Above 50 MT up to 100 MT	₹ 3,125 + ₹ 75 per MT in excess of 50 MT
Above 100 MT to 200 MT	₹ 6,875 + ₹ 90 per MT in excess of 100 MT
Above 200 MT	₹ 15,875 + ₹ 100 per MT in excess of 200 MT

**Rate per Landing - Domestic Flight**

Weight of the Aircraft	Rate Per Landing (In ₹)
Up to 25 MT	₹ 30 per MT
Above 25 MT up to 50 MT	₹ 750 + ₹ 35 per MT in excess of 25 MT
Above 50 MT up to 100 MT	₹ 1,625 + ₹ 40 per MT in excess of 50 MT
Above 100 MT to 200 MT	₹ 3,625 + ₹ 45 per MT in excess of 100 MT
Above 200 MT	₹ 8,125 + ₹ 55 per MT in excess of 200 MT

**Note**

1)	No Landing charges shall be payable in respect of a) Aircraft with a maximum certified capacity less than 80 seats, being operated by Domestic Scheduled operators at airport and b) Helicopters of all types c) DGCA approved Flying school/Flying Training Institute aircrafts.
2)	All Domestic legs of International routes flown by Indian Operators will be treated as domestic flights as far as landing fees is concerned, irrespective of flight number assigned to such flights.
3)	Charges shall be calculated on the basis of nearest MT (i.e. 1000 Kg.).

**II) PARKING AND HOUSING CHARGES**

Weight of the Aircraft	Parking Charges Rates per Hour	Housing Charges Rates per Hour
Up to 100 MT	₹ 1.2 per MT per hour	₹ 2.3 per MT per hour
Above 100 MT	₹ 120 + ₹ 1.6 per MT per hour in excess of 100 MT	₹ 230 + ₹ 3.1 per MT per hour in excess of 100 MT



**Note**

1)	No parking charges shall be levied for the first two hours. While calculating free parking period, standard time of 15 minutes shall be added on account of time taken between touch down time and actual parking time on the parking stand. Another standard time of 15 minutes shall be added on account of taxing time of aircraft from parking stand to take off point. These periods shall be applicable for each aircraft irrespective of actual time taken in the movement of aircraft after landing and before takeoff.
2)	For calculating chargeable parking time any part of an hour shall be rounded off to the next hour.
3)	Charges shall be calculated on the basis of nearest MT.
4)	Charges for each parking period shall be rounded off to nearest Rupee
5)	At the in-contact stands and open stands, after free parking, for the next two hours normal parking charges shall be levied. After this period, the charges shall be double the normal parking charges.

**III) THROUGHPUT CHARGES**

Rate Per KL (IN ₹)
₹ 196.0

**IV) PASSENGER SERVICE FEE (PSF) – SECURITY\***

Rate per embarking passenger	
₹ 130	\$ 3.25

\* PSF-Security is determined by MoCA and the rates as provided by MoCA from time to time shall be applicable

**Notes**

1)	<b>Collection charges:</b> if the payment is made within 15 days of receipt of invoice, then collection charges at 2.50% of PSF per passenger shall be paid by AAI. No collection charges shall be paid in case the airline fails to pay the PSF to AAI within the credit period of 15 days. Wherever collection charges are payable the amount shall be settled within 15 days.
2)	No PSF (Security) will be levied for Transit Passengers.
3)	For conversion of US \$ into ₹ the rate as on 1 <sup>st</sup> day of the month for 1 <sup>st</sup> fortnightly billing period and rate as on 16 <sup>th</sup> of the month for the 2 <sup>nd</sup> fortnightly billing period shall be adopted. If the payment is made within 15 days of receipt of bills, then collection at 2.5% of PSF per passenger is payable.

**V) USER DEVELOPMENT FEE (UDF)**

Particulars	Rate
Domestic UDF per Embarking Passenger	₹ 69
International UDF per Embarking Passenger	₹ 69



## Notes

1)	Collection Charge: If the payment is made within 15 days of receipt of invoice then collection charges at ₹ 5 per departing passenger shall be paid by AAI. No collection charges shall be paid in case the airline fails to pay the UDF invoice to AAI within the credit period of 15 days or in case of any part payment. To be eligible to claim this collection charges, the airlines should have no overdue on any account with AAI. Wherever collection charges are payable the amount shall be settled within 15 days.
2)	No collection charges are payable to casual operator/non-scheduled operators
3)	For calculating the UDF in foreign currency, the RBI reference conversion rate as on the last day of the previous month for tickets issued in the 1st fortnight and rate as on 15th of the month for tickets issued in the 2nd fortnight shall be adopted.
4)	Revised UDF charges will be applicable on tickets issued on or after 01.05.2018.
5)	No UDF will be levied for Transit Passengers

## VI) Exemption from levy and collection from PSF (SC) at the Airports

The Ministry of Civil Aviation, Govt. of India vide order no. AV.16011/002/2008-AAI dated 30.11.2011 has directed AAI to exempt the following categories of persons from levy and collection of PSF (Security).

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

## VII) GENERAL CONDITION:

- a) Flight operating under Regional Connectivity Scheme will be completely exempted from charges as per Order No. 20/ 2016-17 dated 31.03.2017 of the Authority from the date the scheme is operationalized by GOI.
- b) All the above Charges are excluding GST. GST at the applicable rates are payable in addition to above charges.



**Annexure 2 – Comparison of ARR with the projected Aeronautical Revenues for 2<sup>nd</sup> control period**

S. No.	Particulars	2017	2018	2019*	2020	2021
<b>Traffic Assumptions</b>						
1	Domestic ATMs	111,331	114,351	122,356	130,921	140,085
2	International ATMs	36,436	36,931	38,877	40,926	43,083
3	<b>Total ATMs</b>	<b>147,767</b>	<b>151,283</b>	<b>161,233</b>	<b>171,847</b>	<b>183,168</b>
4	Domestic Passengers	13,153,967	14,626,758	16,089,434	17,698,378	19,468,216
5	International Passengers	5,208,248	5,408,155	5,757,805	6,130,061	6,526,384
6	<b>Total Passengers</b>	<b>18,362,215</b>	<b>20,034,914</b>	<b>21,847,240</b>	<b>23,828,439</b>	<b>25,994,599</b>
7	<b>Fuel throughout (kL)</b>	<b>588,545</b>	<b>602,547</b>	<b>642,180</b>	<b>684,454</b>	<b>729,545</b>
<b>Aeronautical Revenues</b>						
	<b>Landing Charges</b>					
8	Average landing charges per departing domestic ATM (₹)	21705	21705	2394	2394	2394
9	<i>Growth in average landing charges per departing domestic ATM (₹)</i>			-89%	0%	0%
10	<b>Landing Charges - Domestic ATM (₹ cr.)</b>	<b>120.8</b>	<b>124.1</b>	<b>24.5</b>	<b>15.7</b>	<b>16.8</b>
11	Average landing charges per departing international ATM (₹)	98284	98284	10841	10841	10841
12	<i>Growth in average landing charges per departing International ATM (₹)</i>			-89%	0%	0%
13	<b>Landing Charges - International ATM (₹ cr.)</b>	<b>179.1</b>	<b>181.5</b>	<b>35.2</b>	<b>22.2</b>	<b>23.4</b>
14	<b>Total Landing Charges (Dom + Int)</b>	<b>299.9</b>	<b>305.6</b>	<b>59.7</b>	<b>37.9</b>	<b>40.1</b>
	<b>Parking and Housing Charges:</b>					
15	Parking and Housing Average Revenue per departing ATM (Dom+Int)	987	987	109	109	109
16	<i>Growth in Parking and Housing charges per departing ATM (Dom+Int)</i>			-89%	0%	0%

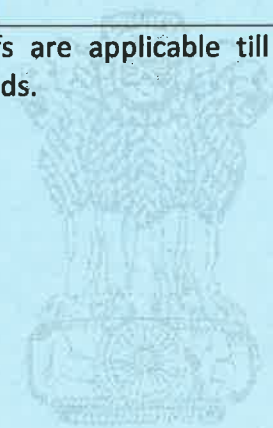


S. No.	Particulars	2017	2018	2019*	2020	2021
17	<b>Total Parking and Housing Charges (Dom + Int)</b>	<b>7.3</b>	<b>7.5</b>	<b>1.5</b>	<b>0.9</b>	<b>1.0</b>
	<b>User Development Fee (UDF)</b>					
18	Domestic UDF per departing passenger (₹)	166	166	69	69	69
19	<i>Growth in Domestic UDF per departing passenger (%)</i>			-58%	0%	0%
20	Revenues from Domestic UDF (₹ cr.)	109.2	121.4	62.0	61.1	67.2
21	International UDF per departing passenger (₹)	667	667	69	69	69
22	<i>Growth in International UDF per departing passenger (%)</i>			-90%	0%	0%
23	Revenues from International UDF (₹ cr.)	173.7	180.4	34.2	21.1	22.5
24	<b>Total UDF (₹ cr.)</b>	<b>282.9</b>	<b>301.8</b>	<b>96.2</b>	<b>82.2</b>	<b>89.7</b>
	<b>Fuel Throughput Charges (FTC)</b>					
25	FTC (₹ per kL)	1774.43	1774.43	196.0	196.0	196.0
26	<b>Revenues from FTC (₹ cr.)</b>	<b>104.4</b>	<b>106.9</b>	<b>21.0</b>	<b>13.4</b>	<b>14.3</b>
27	<b>Ground Handling Charges</b>	<b>44.6</b>	<b>45.7</b>	<b>48.7</b>	<b>51.9</b>	<b>55.3</b>
28	<i>Growth in ground handling charges as per increase in ATMs</i>		2.4%	6.6%	6.6%	6.6%
29	<b>Cute services</b>	<b>19.3</b>	<b>21.0</b>	<b>22.9</b>	<b>25.0</b>	<b>27.3</b>
30	<i>Growth in CUTE charges as per increase in passengers</i>		9.1%	9.0%	9.1%	9.1%
31	<b>Land lease from ground handling agencies</b>	<b>4.9</b>	<b>4.9</b>	<b>4.9</b>	<b>4.9</b>	<b>4.9</b>
32	<i>Growth as per contracts</i>		0.0%	0.0%	0.0%	0.0%
33	<b>Land lease from oil companies</b>	<b>24.8</b>	<b>24.8</b>	<b>24.8</b>	<b>24.8</b>	<b>24.8</b>
34	<i>Growth as per contracts</i>		0.0%	0.0%	0.0%	0.0%
35	<b>Cargo revenues</b>	<b>193.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
36	<b>Total aeronautical revenues</b>	<b>981.1</b>	<b>818.2</b>	<b>279.8</b>	<b>241.0</b>	<b>257.4</b>



S. No.	Particulars	2017	2018	2019*	2020	2021
37	Target Aero Revenue	448.6	510.0	579.4	658.4	748.3
38	Short fall (+)/ Excess (-) in revenue, i.e. difference (Projected – Permissible)	-532.6	-308.2	299.6	417.4	490.9
39	PV value shortfall (+)/ excess (-) as on 01.04.2016 with Discount rate (14.00%)	-532.6	-270.4	230.5	281.7	290.7
40	Total PV shortfall (+)/ excess (-) of difference as on 01.04.2016 for the control period	0.0				

\* For FY 2018-19, existing tariffs are applicable till 30.04.2018 and revised tariffs are applicable from 01.05.2018 onwards.



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