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Consultation Paper No. 32 /2017-18



Airports Economic Regulatory Authority of India

**In the matter of determination of aeronautical tariffs in
respect of Lokpriya Gopinath Bordoloi International Airport,
Guwahati for the second Control Period
(01.04.2016 – 31.03.2021)**

22nd December, 2017

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

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1. Introduction

1.1. Guwahati is the gateway to the North-Eastern states of India. The region is famous for its thriving tea and petrochemical industries. It is the largest black tea producing region in the world and third largest producer of crude petroleum and natural gas in the country. Guwahati offers a number of travel options for local as well as foreign visitors.

1.2. The Lokpriya Gopinath Bordoloi International Airport, Guwahati (LGBIA) is one of the 18 International Airports owned and managed by AAI. The Guwahati Airport was established in the year 1958.

1.3. The traffic handled by LGBIA during the 1st control period is given in table below:

Table 1 - Passenger and ATM traffic during the 1st control period at LGBIA

Year	Dom. Pax (mn)	Int. Pax (mn)	Total Pax (mn)	Dom. ATMs	Int. ATMs	Total ATMs
2012	2.2	0.03	2.2	27,636	452	28,088
2013	2.1	0.02	2.1	26,522	416	26,938
2014	2.2	0.03	2.2	26,604	494	27,098
2015	2.2	0.03	2.2	26,397	474	26,871
2016	2.8	0.03	2.8	28,913	512	29,425

1.4. LGBIA, 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 LGBIA are provided in the table below:

Table 2 – Technical and Terminal building details of LGBIA

Technical Details of LGBIA	
Particulars	Details
Total airport area	823.23 Acres
Runway orientation and length	RWY 02/20 and Length is 3,103 meters
No. of Taxi Tracks	05 (E,F,G,H,J)
No. of Apron Bays	02 Aprons, 21 Bays
Aerodrome Category	4D
Navigational Aids	DVOR,DME,NDB, ILS on Runway 02 OM, OL
Operational hours	24 hours
Terminal building Details	
Particulars	Integrated
Terminal Building Area	19,768 Sq.m.
Immigration Counters	11

Customs Counters	4
Security Counters	9
Departure Conveyor	1
Arrival Conveyor	2
Peak hour passenger capacity	850
No. of Check-in Counters (CUTE)	34
Total Area of Car Parking	9,717 Sq.m.

1.6. The airport is expected to start operating for 24 hours with effect from 01.04.2018.

1.7. The Authority, vide its Order No. 34/2013-14 dated 18.11.2013 had decided to determine the Aggregate Revenue Requirement (ARR) for LGBIA, Guwahati taking into account the investments and costs for airport services. Accordingly, the Authority determined the tariffs for aeronautical services provided at LGBIA with tariffs effective from 01.01.2014. Major decisions of the Authority in its Order No. 34/2013-14 are provided below:

1.7.1. To consider the Initial RAB at ₹ 78.15 crores, as furnished by AAI.

1.7.2. 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.

1.7.3. To true up the traffic volume based on actual growth.

1.7.4. To true up the non-aeronautical revenue based on the actual non-aeronautical revenue at LGBIA during the current Control Period while determining the tariffs for the next Control Period.

1.7.5. To consider WACC at 14% for LGBIA for the first Control Period.

1.7.6. Expects AAI to take steps to move towards more efficient means of finance (i.e. not financing the project with overwhelming proportion of equity). As and when, this happens the Authority would take into account any change in the value of WACC giving effect to the same in the next Control Period.

1.7.7. To determine the tariffs for the Tariff Years 2014-15 to 2015-16 for aeronautical services in respect of LGBIA. The tariffs for FY2014-15 would be effective from 01.01.2014. The tariffs for 2015-16 will be effective from

01.04.2015.

1.7.8. To merge the passenger facilitation component (₹ 77 per departing passenger) of the Passenger Service Fee (PSF), in the UDF. Thus, the PSF would be limited only to the security component.

1.7.9. To calculate shortfall (presently estimated at around ₹ 95.26 crores as of 01.04.2011) in ARR on account of charging of lesser UDF by AAI. Depending on the traffic obtained at the end of the control period and AAI submissions regarding tariff determination for the next control period, the Authority decides to consider, if and to what extent, the calculated shortfall may be reckoned as additional revenue requirement during the next Control Period (over and above what would be required on the basis of calculations only for the next Control Period).

2. Methodology for Tariff determination

- 2.1. 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 12.1.2017 to determine future tariffs using Hybrid Till.
- 2.2. The tariff determination process consists of true-up for 1st control period and determination of building blocks for 2nd control period. The Authority proposes to undertake true-up of 1st control period based on actual financials and traffic data under Single Till (as was applicable during 1st control period) and determination of building blocks for 2nd control period under Hybrid Till.
- 2.3. 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

- 2.3.1. t is the Tariff Year in the control period;
- 2.3.2. ARR_t is the Aggregate Revenue Requirement for year t;
- 2.3.3. FRoR is the Fair Rate of Return for the control period;
- 2.3.4. RAB_t is the Aeronautical Regulatory Asset Base for year t;
- 2.3.5. D_t is the Depreciation corresponding to the Aeronautical RAB for year t;
- 2.3.6. 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;
- 2.3.7. 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;
- 2.3.8. α is 30% cross subsidy factor for revenue from services other than aeronautical services under Hybrid Till for 2nd control period. α is 100% cross

subsidy factor under Single Till for 1st control period; and

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

2.4. 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,

2.4.1. 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.

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

2.4.3. ARR_t is the Aggregate Revenue Requirement for tariff year t.

2.5. While determining building blocks and ARR for LGBIA, Authority proposes to-

2.5.1. 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 1st control period

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

2.6. 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.

2.7. The true-up for 1st control period and determination of building blocks for 2nd control period are detailed in subsequent sections.

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

3. Multi Year Tariff Proposal for LGBIA

- 3.1. In the 1st control period, the Authority, vide its Order No. 34/2013-14 dated 18.11.2013 had decided to determine the aeronautical tariffs to be levied at LGBIA for the first control period with effect from 01.01.2014.
- 3.2. AAI made submissions dated 29.03.2016 to the Authority for determination of tariffs for 2nd control period. Subsequent to the announcement of National Civil Aviation Policy, AAI made revised submissions under Hybrid Till on 28.03.2017. AAI has not considered cargo related revenues, expenses and assets in the MYTP for 2nd control period and submitted that AAI Cargo Logistics and Allied Services Company Limited (AAICLAS) would file proposal for cargo tariffs for 2nd control period. The Authority has adopted the model proposed by AAI based on AERA methodology as on 28.03.2017 and considered subsequent submissions for this consultation paper.
- 3.3. AAI provides Air Navigation Services (ANS) services in addition to landing, parking and other aeronautical services at LGBIA. AAI has submitted that the tariff proposal does not consider revenues, expenditure and assets on account of ANS services. This order discusses the determination of tariffs for aeronautical services at the airport excluding ANS services.
- 3.4. 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 LGBIA. The Authority has utilized these documents as submitted by AAI for determination of tariffs.

4. True-up for First control period

4.1. True-up for 1st control period is calculated as difference between

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

4.1.2. Actual aeronautical revenue received by AAI for 1st control period

4.2. AAI has submitted opening RAB for the 1st control period under Single Till at ₹ 78.1 crores.

Table 3 – Opening RAB for the 1st 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	174.4
2	Accumulated Depreciation as on 01.04.2011	96.3
3	Opening RAB[(1)-(2)] as on 01.04.2011	78.1

Permissible aeronautical revenues

4.3. AAI has calculated Aggregate Revenue Requirement of ₹ 313.6 crores (PV of ARR is ₹ 242.3 crores as on 1st April 2012) for 1st control period.

Table 4 - ARR as per AAI for the 1st control period – Single Till

Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
Opening RAB	78.1	103.7	93.6	81.7	83.0
Assets capitalized during the year	40.4	4.2	2.3	16.0	2.7
Disposals/ Transfer					
Depreciation	14.8	14.4	14.2	14.8	14.8
Closing RAB	103.7	93.6	81.7	83.0	70.8
Average RAB	90.9	98.7	87.7	82.3	76.9
Return on Average RAB@14%	12.7	13.8	12.3	11.5	10.8
Operating Expenditure	40.9	40.0	41.1	52.1	47.2
Depreciation	14.8	14.4	14.2	14.8	14.8
Corporate Tax	0.0	0.0	0.0	0.1	12.8
Less- Revenue from services other than Regulated services	9.5	10.6	9.3	9.2	16.3
ARR as per AAI	59.0	57.6	58.3	69.4	69.4
Total ARR as per AAI					313.6
Discounted ARR	59.0	50.5	44.8	46.8	41.1
PV of ARR for the control period as on 01.04.2012					242.3

Actual aeronautical revenues

4.4. AAI has submitted that it has earned total aeronautical revenues of ₹ 203.8 crores during the 1st control period. Correspondingly, AAI has submitted that it has a shortfall of ₹ 212.4 crores (future value as on 01.04.2017) during the 1st control period. The aeronautical revenues for the 1st control period is shown below:

Table 5 - Aeronautical revenue earned for the 1st 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	10.8	10.3	13.7	19.7	24.3
1.2	International	0.4	0.3	0.5	0.5	0.7
1.3	Total Landing Charges	11.2	10.6	14.2	20.2	25.0
2	Parking and Housing Charges:					
		0.0	0.0	0.0	0.1	0.1
3	PSF(Facilitation Charges(FC)):					
3.1	Domestic	8.7	8.0	6.8	0.2	0.0
3.2	International	0.0	0.0	0.0	0.0	0.0
3.3	Total PSF (FC)	8.7	8.0	6.8	0.2	0.0
4	User Development Fees (UDF):					
4.1	Domestic	0.0	0.0	6.6	34.4	44.2
4.2	International	0.0	0.0	0.0	0.3	0.4
4.3	TOTAL UDF	0.0	0.0	6.7	34.7	44.6
5	Fuel Throughput Charges					
		0.8	0.9	0.9	0.7	0.9
6	Ground Handling Charges					
		0.8	0.6	0.7	0.6	1.0
7	Cargo revenues					
		0.0	0.1	0.1	0.2	0.2
8	CUTE services					
		0.0	0.1	0.8	1.2	1.6
9	Extension of service hours					
		0.1	0.1	0.0	0.2	0.1
	Total Aeronautical Revenues	21.6	20.4	30.3	58.0	73.4

Table 6 - ARR and its resultant shortfall as per AAI for 1st control period – Single Till

No.	Components (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16	Total
1	ARR for year	59.0	57.6	58.3	69.4	69.4	313.6
2	Aeronautical Revenue	21.6	20.4	30.3	58.0	73.4	203.8
3	Shortfall	37.4	37.2	28.0	11.4	-4.1	109.8
4	Future Value of shortfall as on 01.04.2017	82.0	71.5	47.2	16.8	-5.3	212.4

Authority's Examination

4.5. The Authority noted that landing revenues in FY 2012-13 is lower as compared to FY 2011-12. As per the clarifications provided dated 10.08.2017, AAI submitted that the decrease in landing revenue is due to withdrawal of operation of Kingfisher Airlines from September 2012.

4.6. The Authority noted that fuel throughput revenues in FY 2014-15 is lower as compared to FY 2013-14. As per the clarifications provided dated 10.08.2017, AAI submitted that the decrease in fuel throughput revenue is due to decrease in Spice Jet Flight movement in FY 2014-15.

4.7. The Authority noted that ground handling revenues in FY 2014-15 is lower as compared to FY 2013-14. As per the clarifications provided dated 10.08.2017, AAI submitted that the decrease in ground handling revenue is due to decrease in Spice Jet Flight movement in FY 2014-15 and due to non-handling of Spice Jet Flights by J P Aviation in FY 2014-15.

4.8. The Authority proposes adjustments on the following building blocks for calculating true-up of 1st control period

4.8.1. Adjustment of depreciation

4.8.2. Adjustment of non-aeronautical revenues

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

4.8.4. Correction of present value factor for shortfall calculation

Adjustment for Depreciation

4.9. 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 7 - Depreciation rates as submitted by AAI

No.	Asset Class	As per AAI
1	Land	0%
2	Runways	13%
3	Taxiway	13%
4	Aprons	13%
5	Road, Bridges & Culverts	13%
6	Building- Terminal	8%
7	Building - Temporary	100%
8	Building - Residential	5%
9	Security Fencing - Temporary	100%
10	Boundary Wall -Operational	8%
11	Boundary Wall - Residential	5%
12	Computer & Peripherals	20%
13	Intangible Assets- Software	20%
14	Plant & Machinery	11%
15	Tools & Equipment	20%
16	Office Furniture	20%
17	Other Vehicles	14%
18	Vehicle- Cars & Jeeps	14%
19	Electrical Installations	11%
20	Other Office Equipment	18%
21	Furniture & Fixtures-Other than office	20%
22	X Ray Baggage System	11%
23	CFT/Fire Fighting Equipment	13%

4.10. The Authority proposes the following depreciation rates

4.10.1. 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

4.10.2. 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 28.

4.11. Depreciation for the 1st control period has been calculated on the basis of actual date of capitalization of assets.

4.12. The revised depreciation for the 1st control period under Single Till is given below:

Table 8 – The Authority’s consideration of depreciation for 1st control period – Single Till

No.	Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16	Total
1	As per AAI	14.8	14.4	14.2	14.8	14.8	72.9
2	As per Authority	4.6	4.4	4.4	6.9	6.8	27.1

4.13. AAI has taken the cost of land in to 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. 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. Therefore, it is proposed to conduct a study based on which the treatment to be given to cost of land can be determined.

4.14. In the case of LGBIA, it is therefore proposed to exclude the existing cost of land (₹ 5.1 crores in FY 2011-12 and addition of ₹ 28.8 crores in FY 2011-12) from the RAB till a final decision is taken on the issue.

4.15. The change in depreciation rates and exclusion of land from RAB results in a change in average RAB of the 1st control period as shown below –

Table 9 – The Authority’s consideration of average RAB for 1st control period – Single Till

No	Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
1	As per AAI					
	Opening RAB	78.1	103.7	93.6	81.7	83.0
	Additions	40.4	4.2	2.3	16.0	2.7
	Disposals					
	Depreciation	14.8	14.4	14.2	14.8	14.8
	Closing RAB	103.7	93.6	81.7	83.0	70.8
	Average RAB	90.9	98.7	87.7	82.3	76.9
2	As per Authority					
	Opening RAB	73.1	80.2	80.0	77.9	87.2
	Additions	11.8	4.2	2.3	16.2	2.7
	Disposals					
	Depreciation	4.6	4.4	4.4	6.9	6.8
	Closing RAB	80.2	80.0	77.9	87.2	83.0
	Average RAB	76.6	80.1	79.0	82.6	85.1

Adjustment for Non-Aeronautical revenues

4.16. 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.

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

Table 10 – Comparison of NAR as considered by AAI and the Authority for 1st control period

NAR (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
NAR as submitted by AAI (1)	9.5	10.6	9.3	9.2	16.3
Adjustment					
<i>Revenue from Cargo, Ground handling and fuel services treated as aeronautical (2)</i>	0.1	0.3	0.3	0.4	5.1
NAR as per Authority (3 = 1 - 2)	9.4	10.3	9.1	8.8	11.2

Adjustment for operating expenditure (CHQ/ RHQ expenditure apportionment)

4.18. 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 LGBIA consist of two components – Expenditure for LGBIA employee's retirement benefit allocated at CHQ and overheads at CHQ/RHQ. The CHQ/RHQ overheads expense considered for apportionment have been netted off against the income received by CHQ/RHQ.

4.19. The retirement benefit is allocated on the basis of number of employees at LGBIA. The Authority proposes 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 1st 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/RHQ. 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 11 - Summary of CHQ/ RHQ Overheads as submitted by AAI for 1st control period

No.	in INR cr.	2012	2013	2014	2015	2016
Apportionment of CHQ/ RHQ overheads						
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	Net CHQ Expenses (1-2)	165.6	178.7	120.3	160.5	176.9
1	North Eastern Region - RHQ Expenses	17.3	17.6	20.6	24.9	26.3
2	Less – North Eastern Region - RHQ Revenues	0.7	3.1	0.3	0.2	10.3
3	Net North Eastern Region RHQ Expenses (1-2)	16.6	14.5	20.3	24.7	16.0
	CHQ/ RHQ Overheads allocated to LGBIA	9.0	9.0	12.7	17.8	13.1
Apportionment of Retirement Benefits at CHQ						
	Total provision of retirement benefits at CHQ	159.7	289.4	160.0	275.2	182.9
	Provision of Retirement Benefits at CHQ for LGBIA	5.9	6.0	3.1	5.2	3.4

4.20. Additionally, the Authority noted that AAI has considered landing discount as part of other expenses. The Authority proposes to exclude landing discounts from the operating expenditure for true-up in 1st control period.

4.21. In view of the above, the O&M expenditure for 1st control period is given in table below.

Table 12 - Summary of O&M expenditure as per the Authority for 1st control period -Single Till

No.	Particulars (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
1	Pay roll Expenditure of LGBIA	16.1	17.3	19.2	20.0	19.3
2	Expenditure for LGBIA employees' retirement benefits allocated at CHQ	5.9	6.0	3.1	5.2	3.4
3	Common expenses related to ANS	1.3	1.5	2.0	2.2	2.0
A	Total Pay roll Expenditure (1+2-3)	20.8	21.8	20.2	23.0	20.7
4	Administrative and General Expenditure	2.0	2.1	2.4	2.8	3.2
5	Apportionment of administration & General expenditure of CHQ	9.0	9.0	12.7	17.8	13.1
B	Total Administration & General Expenditure(4+5)	11.0	11.1	15.0	20.6	16.3
C	Repairs and Maintenance Expenditure	5.4	3.6	3.3	4.4	6.0

No.	Particulars (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
6	Power Charges	2.2	1.9	1.9	3.0	3.5
7	Water Charges	0.0	0.0	0.0	0.0	0.0
8	Other expenses	0.6	0.9	0.6	0.9	0.4
D	Utility and Outsourcing Expenditure	2.7	2.8	2.6	3.9	3.9
E	Other Outflows	0.1	0.0	0.0	0.2	0.0
	Total (A+B+C+D+E)	40.1	39.2	41.1	52.1	46.9

Adjustment in base year for calculating present value of shortfall

4.22. The Authority noted that the present value factor considered by AAI for the shortfall in aggregate revenue collection in comparison to allowable aggregate revenue for the 1st control period (refer to Table 6) is calculated as on 01.04.2017 instead of 01.04.2016. The Authority proposes to consider the present value of shortfall as on 01.04.2016.

Tax calculation for 1st control period

4.23. The tax calculation as submitted by AAI for 1st control period apportions actual tax liability of AAI based on the profit before tax of LGBIA and profit before tax of AAI.

4.24. 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 proposes to determine tax for LGBIA by applying provisional tax rate on the standalone profit before tax of the airport. In addition, for calculation of tax, the Authority proposes to determine depreciation considering the depreciation rates applicable under Income Tax laws.

4.25. AAI has submitted revised tax calculations based on standalone financials of LGBIA.

The Authority proposes to consider the tax calculation as given below.

Table 13 – Revised amount of Tax as considered by Authority for the 1st control period

Particular (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
Aeronautical Revenues	21.7	20.6	30.5	58.4	74.9
Non-Aeronautical Revenues	9.4	10.3	9.1	8.8	11.2
O&M (excluding retirement benefits and CHQ/ RHQ Overheads)	25.1	24.3	25.4	29.0	30.5
Retirement benefits and CHQ/ RHQ Overheads	14.9	14.9	15.7	23.1	16.5
Depreciation as per IT Act	11.5	10.7	9.5	9.0	8.7

Profit Before Tax (PBT)	-20.5	-18.9	-11.0	6.0	30.4
Tax	0.0	0.0	0.0	2.1	10.5

4.26. The Authority notes that the tax has been determined by applying a provisional tax rate. While doing so the previous year losses are not carried forward. The Authority seeks stakeholder's comments on the same.

Revised Aggregate Revenue Requirement

4.27. The ARR for the 1st control period has been revised based on adjustments detailed above.

4.27.1. Change in depreciation rates as per Table 28

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

4.27.3. Lease rentals/rents from ground handling agencies and oil companies to be treated as aeronautical revenues

4.27.4. Correction of present value factor for shortfall calculation

Table 14 - ARR as per Authority for the 1st control period – Single Till

Details (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16
Average RAB	76.6	80.1	79.0	82.6	85.1
Return on Average RAB@14%	10.7	11.2	11.1	11.6	11.9
Operating Expenditure	40.1	39.2	41.1	52.1	46.9
Depreciation	4.6	4.4	4.4	6.9	6.8
Corporate Tax	0.0	0.0	0.0	2.1	10.5
Less- Revenue from services other than Regulated services	9.4	10.4	9.1	8.8	11.2
ARR as per Authority	46.0	44.4	47.5	63.8	65.0
Total ARR as per Authority	266.8				
Discounted ARR	46.0	39.0	36.6	43.1	38.5
PV of ARR for the control Period as on 01.04.2012	203.1				

4.28. Correspondingly, the shortfall during the 1st control period between permissible aeronautical revenues and actual aeronautical revenues is calculated as below:

Table 15 - ARR, yield and shortfall as per Authority for 1st control period – Single Till

No.	Components (₹ crore)	2011-12	2012-13	2013-14	2014-15	2015-16	Total
1	ARR for year (refer Table 14)	46.0	44.4	47.5	63.8	65.1	266.8
2	Aeronautical Revenue	21.7	20.6	30.5	58.4	74.9	206.1

3	Shortfall (-ve)/ excess (+ve)	-24.3	-23.8	-17.0	-5.4	9.9	-60.7
4	Future Value of shortfall (-ve)/ excess (+ve) as on 01.04.2016	-46.8	-40.3	-25.2	-7.0	11.3	-108.0

Proposal No. 1. True-up for the 1st control period

- 1.a. The Authority proposes to true-up the 1st control period on the basis of Single Till
- 1.b. The Authority proposes to apportion CHQ/RHQ overheads on revenue basis.
- 1.c. The Authority proposes to consider the revenues from Cargo facility, Ground Handling Services and Supply of fuel to aircraft including land lease rentals as aeronautical revenue.
- 1.d. The Authority proposes the following depreciation rates.
 - a. 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
 - b. 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 28.
- 1.e. The Authority proposes to consider short fall of ₹ 108.0 crores in the 1st control period to be added to ARR for the 2nd control period.

5. Traffic forecast

5.1. The traffic growth rates as submitted by AAI for 2nd control period are as follows:

Table 16 - Traffic Growth rates assumed by AAI for the 2nd control period

YEAR	Passenger			Air Traffic Movements (ATM)		
	Domestic	International	Combined	Domestic	International	Combined
2016-17	20%	5%	20%	10%	4%	10%
2017-18	8%	10%	8%	6%	9%	6%
2018-19	8%	10%	8%	6%	9%	6%
2019-20	8%	10%	8%	6%	9%	6%
2020-21	8%	10%	8%	6%	9%	6%

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

Authority's Examination

5.3. The Authority observed that the actual traffic data is available for FY 2016-17 for LGBIA. 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 proposes to revise traffic growth rates for FY 2016-17 as per Table 18.

5.4. 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 LGBIA. The details have been provided in table below:

Table 17 - CAGR for Traffic at LGBIA

	Growth rates as per AAI (FY18 to FY21)	10 Year CAGR (FY06 to FY16)	5 Year CAGR (FY11 to FY16)
Passenger			
Domestic	8%	14%	7%
International	10%	12%	17%
ATM			
Domestic	6%	7%	2%
International	9%	6%	18%

5.5. After evaluation of 5 and 10 year CAGR of traffic for passenger traffic, the Authority is of the view that 10 years CAGR for passenger traffic is high due to lower initial base traffic and 5 years CAGR is also very high for international traffic due to lower initial base traffic. Therefore, the Authority proposes to consider growth rate of 10% for CP No. 32/2017-18 dated 22.12.2017

domestic as well as international passenger traffic. The Authority proposes higher growth rate for domestic passenger traffic than proposed by AAI because of the higher traffic potential due to implementation of RCS, increase in operational hours and Guwahati airport's aim to become a hub for north-east region.

5.6. For ATM traffic, the Authority proposes to consider 10 year CAGR for domestic ATM traffic and international ATM growth rate as proposed by AAI.

Table 18 - Traffic growth rates and Traffic as considered by Authority for the 2nd control period

YEAR	Passenger			ATM		
	Domestic	International	Combined	Domestic	International	Combined
Growth Rates						
2016-17	36.6%	-5.4%	36.1%	29.3%	-4.3%	28.7%
2017-18	10%	10%	10%	7%	9%	7%
2018-19	10%	10%	10%	7%	9%	7%
2019-20	10%	10%	10%	7%	9%	7%
2020-21	10%	10%	10%	7%	9%	7%
Traffic						
2016-17	3,759,494	30,162	3,789,656	37,383	490	37,873
2017-18	4,135,443	33,178	4,168,622	40,031	534	40,565
2018-19	4,548,988	36,496	4,585,484	42,866	582	43,449
2019-20	5,003,887	40,146	5,044,032	45,903	635	46,537
2020-21	5,504,275	44,160	5,548,435	49,154	692	49,846

5.7. The Authority proposes to true-up traffic as per actual growth achieved during the current control period at the time of determination of tariff for 3rd control period as explained in earlier orders of the Authority.

Proposal No. 2. Traffic Forecast

2.a. The Authority proposes to consider the ATM and passenger traffic as per Table 18.

2.b. The Authority proposes 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.

6. Allocation of Assets (Aeronautical and Non-Aeronautical)

6.1. 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 1st control period, the assets need to be segregated and opening RAB for 2nd control period needs to be recalculated.

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

- a) Terminal Area Ratio - ratio of aeronautical area to non-aeronautical area (10.98% applied for Terminal related assets as non-aeronautical portion)
- b) Employee Ratio - ratio of staff providing commercial services (4 employees) and staff providing aeronautical services (136 employees)

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

Table 19 – 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	33.9	33.9	100%
2	Runways	26.8	26.8	100%
3	Taxiway	0.2	0.2	100%
4	Aprons	35.6	35.6	100%
5	Road, Bridges & Culverts	16.5	17.0	97%
6	Building- Terminal	27.2	27.7	98%
7	Building - Temporary	1.3	1.3	100%
8	Building - Residential	7.4	7.4	100%
9	Security Fencing - Temporary	2.3	2.3	100%
10	Boundary Wall -Operational	5.1	5.1	100%
11	Boundary Wall - Residential	0.0	0.0	100%
12	Computer & Peripherals	1.8	1.8	98%
13	Intangible Assets- Software	0.5	0.5	99%
14	Plant & Machinery	15.7	15.7	100%
15	Tools & Equipment	2.1	2.1	98%
16	Office Furniture	1.7	2.0	83%
17	Other Vehicles	2.2	2.2	100%
18	Vehicle- Cars & Jeeps	0.8	0.8	100%

Sr. No.	Assets	Aero Assets (₹ crore)	Total Assets (₹ crore)	% Aero
19	Electrical Installations	27.5	27.7	99%
20	Other Office Equipment	1.4	1.4	100%
21	Furniture & Fixtures-Other than office	2.5	2.5	100%
22	X Ray Baggage System	5.6	5.6	100%
23	CFT/Fire Fighting Equipment	20.7	20.7	100%
	Total	238.8	240.4	99.3%

Authority's Examination

Allocation based on Terminal Area Ratio

6.4. AAI submitted the workings for the calculation of aeronautical area to non-aeronautical area ratio vide letter dated 28.03.2017.

Table 20 – Workings of Terminal Area Ratio calculation as submitted by AAI for FY 2015-16

S.No.	Category	Integrated Terminal Building (Sq.m)
1	Restaurant / Snack Bars	646
2	T.R. Stall	465
3	Building Non-Residential	902
4	Admission Tickets	20
5	Other miscellaneous	138
	Total Non-aeronautical area	2,170
	Total Terminal area	19,768
	Terminal Building Ratio	10.98%

6.5. The Authority noted that AAI has used a different ratio of 10.28% for allocation of terminal related asset into non-aeronautical portion than the ratio submitted as part of commercial details provided in Table 20. The Authority requested for the clarification from AAI for the same. As per the clarification provided dated 10.08.2017, AAI submitted that the Terminal Building (TB) ratio of 10.98% is to be considered. The Authority accordingly considered aeronautical ratio of 89.02% for allocation of terminal related assets as aeronautical assets.

6.6. Specific assets under Office furniture, Plant & Machinery, Tools & Equipment, other office equipment and Furniture and Fixtures inside Terminal Building have been considered as aeronautical by AAI. The Authority proposes to allocate these assets in

the ratio of 89.02% to 10.98%.

6.7. Specific assets under Electrical installations related to the Terminal Building have been considered as aeronautical by AAI. The Authority proposes to allocate these assets in the ratio of 89.02% to 10.98%.

6.8. Assets related to vehicles have been considered as aeronautical assets by AAI. The Authority proposes to adopt the employee ratio of 97% (ratio of employees for aeronautical activities to total employees) for allocation of specific assets related to vehicles (Vehicle Cars & Jeep).

6.9. The Authority proposes to exclude the costs of hangars from aeronautical RAB.

6.10. The Authority proposes to consider car park related assets as 100% non-aeronautical assets.

6.11. The Authority noted that for allocating residential building related assets based on quarters' ratio, AAI has considered as purely aeronautical assets as the quarters' ratio used for allocation is taken 0% for non-aeronautical employees. The Authority requested for the clarification from AAI for the same. As per the clarification provided dated 10.08.2017, AAI submitted that no quarter has been allotted to land, commercial and cargo department. The Authority accordingly proposes to consider the allocation submitted by AAI.

6.12. The Authority had noted that no cargo related assets have been separately considered by AAI in RAB while preparing the MYTP for 1st and 2nd control period. As part of the clarifications provided dated 27.11.2017, AAI submitted that no cargo assets have been considered while calculating RAB in the 1st and 2nd control period. As per AAI clarifications, AAI Cargo Logistics And Allied Services Company Limited (AAICLAS) is managing cargo activities at Guwahati Airport, which is 100% subsidiary of AAI. AAICLAS would file cargo MYTP of Guwahati separately. As per AAI's submission dated 27.11.2017, the Authority notes that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for LGBIA. 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 determining tariffs in the second control period. Further, the Authority notes 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.

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

Table 21 – Change in allocation of gross block of assets existing as on 01.04.2016 between aeronautical and non-aeronautical services proposed by the Authority

Sr. No.	Particulars	Aero Assets	Justification
1	Road, Bridges & Culverts	68.5%	Total assets are ₹ 17.0 crores out of which ₹ 10.6 crores are purely aeronautical assets and common assets are ₹ 1.1 crores. Common assets are allocated based on 89% ratio as aeronautical assets for assets related to terminal building and common quarters related assets are considered as purely aeronautical assets. Car park related assets have been considered as non-aeronautical assets.
2	Building – Terminal	43.4%	Total assets are ₹ 27.7 crores out of which ₹ 8.6 crores are purely aeronautical assets and common assets are ₹ 3.8 crores. Common assets are allocated based on 89% ratio as aeronautical assets for assets related to terminal building. Hangar related assets(₹ 14.8 cr.) have been considered as non-aeronautical assets.
3	Building – temporary	76.5%	Total assets are ₹ 1.3 crores out of which ₹ 1.0 crores are purely aeronautical assets and non-aeronautical assets are ₹ 0.3 crores.
4	Building – residential	99.5%	Total assets are ₹ 7.4 crores out of which ₹ 7.3 crores are purely aeronautical assets.
5	Plant & machinery	99.4%	Total assets are ₹ 15.7 crores out of which ₹ 12.9 crores are purely aeronautical assets and common assets are ₹ 2.8 crores. Common assets are allocated based on 89% ratio as aeronautical assets for assets related to terminal building, based on employee ratio for assets related to employees and common quarters related assets are considered as purely aeronautical assets.
6	Office furniture	82.5%	Total assets are ₹ 2.0 crores out of which ₹ 1.6 crores are purely aeronautical assets and common assets are ₹ 0.1 crores. Common assets are allocated based on 89% ratio as aeronautical assets for assets related to terminal building.
7	Other vehicles	97.8%	Total assets are ₹ 2.2 crores out of which ₹ 1.5 crores are purely aeronautical assets and

Sr. No.	Particulars	Aero Assets	Justification
			common assets are ₹ 0.7 crores. Common assets are allocated based on 93% ratio as aeronautical assets for assets related to vehicles.
8	Vehicles – Cars & Jeep	94.9%	Total assets are ₹ 0.8 crores out of which ₹ 0.2 crores are purely aeronautical assets and common assets are ₹ 0.6 crores. Common assets are allocated based on 93% ratio as aeronautical assets for assets related to vehicles.
9	Electrical installation	97.9%	Total assets are ₹ 27.7 crores out of which ₹ 22.3 crores are purely aeronautical assets and common assets are ₹ 5.2 crores. Common assets are allocated based on 89% ratio as aeronautical assets for assets related to terminal building and common quarters related assets are considered as purely aeronautical assets.
10	Furniture & fixtures other than office	81.0%	Total assets are ₹ 2.5 crores out of which ₹ 0.6 crores are purely aeronautical assets and common assets are ₹ 1.6 crores. Common assets are allocated based on 89% ratio as aeronautical assets for assets related to terminal building.

6.14. The cost of land has been excluded from the RAB of 2nd control period as in Para 4.14.

6.15. 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:

Table 22 – 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	Aero Assets (₹ crore)	Total Assets (₹ crore)	% Aero
1	Land	-	-	-
2	Runways	26.8	26.8	100%
3	Taxiway	0.2	0.2	100%
4	Aprons	35.6	35.6	100%
5	Road, Bridges & Culverts	11.7	17.0	68%
6	Building- Terminal	12.0	27.7	43%
7	Building - Temporary	1.0	1.3	76%
8	Building - Residential	7.3	7.4	99%
9	Security Fencing - Temporary	2.3	2.3	100%
10	Boundary Wall -Operational	5.1	5.1	100%
11	Boundary Wall - Residential	0.0	0.0	100%
12	Computer & Peripherals	1.8	1.8	98%
13	Intangible Assets- Software	0.5	0.5	99%

Sr. No.	Assets	Aero Assets (₹ crore)	Total Assets (₹ crore)	% Aero
14	Plant & Machinery	15.6	15.7	99%
15	Tools & Equipment	2.1	2.1	98%
16	Office Furniture	1.7	2.0	82%
17	Other Vehicles	2.1	2.2	98%
18	Vehicle- Cars & Jeeps	0.8	0.8	95%
19	Electrical Installations	27.1	27.7	98%
20	Other Office Equipment	1.4	1.4	100%
21	Furniture & Fixtures-Other than office	2.0	2.5	81%
22	X Ray Baggage System	5.6	5.6	100%
23	CFT/Fire Fighting Equipment	20.7	20.7	100%
	Total	183.5	206.5	88.8%

Proposal No. 3. Allocation of assets between Aeronautical and Non-aeronautical services

3.a.The Authority proposes the allocation of assets as on 1st April 2016 between aeronautical and non-aeronautical assets as detailed in Table 22.

7. Opening Regulatory Asset Base for Second control period

7.1. Opening RAB for 2nd control period under Hybrid Till as per AAI submission dated 28.03.2017 is ₹ 70.2 crores

Table 23 - Calculation of opening RAB as on 1st April 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	173.5
2	Aeronautical asset addition during the 1 st control period	65.4
3	Cost of Aeronautical Assets [(1)+(2)] as on 01.04.2016	238.8
4	Accumulated Depreciation as on 01.04.2016	168.6
5	Opening RAB[(3)-(4)] as on 01.04.2016	70.2

7.2. The Authority proposes to adopt depreciation rates as detailed earlier in Para 4.7 for calculating RAB for 2nd control period.

7.3. The Authority proposes the allocation of assets between aeronautical and non-aeronautical assets as detailed in Table 22.

7.4. Based on revised depreciation rates and revised asset allocation, the opening RAB for 2nd control period considered by the Authority under Hybrid Till is ₹ 65.5 crores.

Table 24 - Calculation of opening RAB as on 1st 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	162.0
2	Aeronautical asset addition during the 1 st control period	21.5
3	Cost of Aeronautical Assets [(1)+(2)] as on 01.04.2016	183.5
4	Accumulated Depreciation as on 01.04.2016	117.9
5	Opening RAB[(3)-(4)] as on 01.04.2016	65.5

Proposal No. 4. Opening Regulatory Asset Base for the 2nd control period

4.a. The Authority proposes to consider the opening regulatory base for the 2nd control period under Hybrid Till as ₹ 65.5 crores.

8. Capital Expenditure for Second control period

8.1. AAI has in their submissions dated 28.03.2017 submitted aeronautical capital expenditure of ₹ 1,307.3 crores for the 2nd control period and revised the capital expenditure to ₹ 1,453.9 crores as per submission dated 10.08.2017 and 21.11.2017 as shown below:

Table 25 – Aeronautical assets to be capitalized at LGBIA for 2nd control period as per AAI

S.N.	Particulars (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
1	Land	0.0	0.0	0.0	0.0	30.0
2	Runways	0.0	0.0	0.0	120.0	100.0
3	Road, Bridges & Culverts	0.0	0.4	0.0	20.0	0.0
4	Building- Terminal	2.3	9.3	10.0	10.0	495.0
5	Building – Residential	0.0	0.0	0.0	0.0	12.4
6	Boundary Wall - Operational	0.0	0.0	8.0	0.0	0.0
7	Electrical Installations	0.1	0.2	0.0	0.0	489.6
	Total (₹ 1,307.3 crores)	2.4	9.9	18.0	150.0	1,127.0
	Revised capital expenditure submitted by AAI dated 10.08.2017 and 21.11.2017					
1	Land	0.0	0.0	0.0	0.0	30.0
2	Runways	0.0	0.0	0.0	220.0	0.0
3	Road, Bridges & Culverts	0.0	0.4	0.0	20.0	0.0
4	Building- Terminal	0.6	10.7	33.0	0.0	564.0
5	Building – Residential	0.0	0.0	0.0	0.0	12.4
6	Boundary Wall - Operational	0.0	0.0	8.0	0.0	0.0
7	Electrical Installations	0.9	0.1	0.0	0.0	548.4
8	Plant & Equipment	5.3	0.0	0.0	0.0	0.0
9	Computers	0.1	0.0	0.0	0.0	0.0
10	Software	0.0	0.0	0.0	0.0	0.0
11	CFT	0.0	0.0	0.0	0.0	0.0
12	Furniture & Fixtures	0.0	0.0	0.0	0.0	0.0
13	Vehicle	0.1	0.0	0.0	0.0	0.0
	Total (₹1,453.9 crores)	6.9	11.2	41.0	240.0	1,154.8

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

8.2.1. Levelling of low lying area of acquired land by earth filling (₹ 30 crores in FY 2020-21 under Land)

8.2.2. Runways

8.2.2.1. Extension of runway and strengthening of runway, taxiway and apron (₹ 120 crores in FY 2019-20)

Present runway length is 3103 m which is suitable for Code D Aircraft. Extension of runway is required to facilitate movement of Code E Aircraft at Guwahati. Considering rapid growth of traffic movement at Guwahati Airport there is huge requirement to provide facility for operation of Code E Aircraft in coming years for domestic and international traffic. Hence, extension of runway is required.

Last re-carpeting of runway was carried out more than 14 years back which has caused tearing out of top surface to a considerable extent and development of cracks over the surface resulting in bad riding surface and accumulation of rubber deposits almost all over the surface beyond permissible limits. Hence strengthening and re carpeting of runway is required.

8.2.2.2. Construction of parallel taxi track and ancillary works (₹ 100 crores in FY 2019-20)

There is no parallel taxi track at Guwahati Airport due to which runway occupancy time for an aircraft at the Airport is much more. This causes maximum possible movement of 12 nos. of Aircraft (departure + arrival) per hour. Due to rapid growth of passenger movement at Guwahati, more traffic movement than available facility of 12 nos. per hour is likely in coming years for which the runway occupancy time has to be reduced. Provision of parallel taxi track will reduce the runway occupancy time to the extent that up to 30 nos. of aircraft can operate per hour. Hence parallel taxi track is urgently required.

8.2.3. Road, Bridges & Culverts

8.2.3.1. Perimeter road and lighting watch tower (₹ 20 crores in FY 2019-20)

The existing perimeter road is only 3.5 m wide which is not suitable for CFT movement. In case of emergency perimeter road is required to be

utilized for CFT movement for which 7 m wide road is required. Boundary wall is being constructed around newly acquired land after completion of which perimeter road is required to be shifted along the new boundary. Construction of new perimeter road along the new boundary line at different stretches and widening of existing perimeter road at balance stretches is required on safety and security point of view. Consequently perimeter lights along the new stretches will be required along with provision for new watch towers for surveillance by CISF. Hence the work is urgently required.

8.2.4. Building - Terminal

8.2.4.1. Expansion and modification of terminal building (₹ 10 crores total in FY 2017-18)

The existing terminal building is around 20 years old with capacity for 1.6 million passengers per year. Whereas the present passenger movement is around 4 million passengers per year resulting in huge congestion in the terminal building and inconvenience to the passengers. In view of such huge increase in passenger movement, the terminal building is expanded wherever possible with provision of 2 no. of air link corridor so that 2 no. of aerobridges can be installed. Hence the work was urgently needed and the work is in progress.

AAI has proposed to consider aeronautical capital expenditure towards expansion and modification of terminal building based on 89.02% ratio for the 2nd control period (₹ 8.9 crores under Building Terminal in FY 2017-18)

8.2.4.2. Construction of fire station (₹ 10 crores in FY 2020-21)

The existing fire station is meeting category VII, whereas as per norms it has to be upgraded to category VIII with more number of bays for CFT, fully equipped emergency medical centre and other allied facilities to take care of huge traffic movement of Guwahati Airport. Hence new fire station is required to be constructed.

AAI has proposed to consider aeronautical capital expenditure towards

construction of fire station as ₹ 10 crores under Building Terminal in FY 2018-19.

8.2.4.3. Construction of E&M work shop (₹ 10 crores in FY 2018-19)

The existing E& M workshop is not meeting the required standard of category VIII which requires more space for parking of CFT and other vehicles with more office space and other allied facilities. Further the existing E & M workshop is very close to terminal building on one side and to the cargo gate on the other side which causes operational difficulties. Shifting the workshop is urgently required along with up gradation of the workshop to category VIII. Hence the work is needed to be taken up.

AAI has proposed to consider aeronautical capital expenditure towards construction of E&M workshop as ₹ 10 crores under Building Terminal in FY 2018-19.

8.2.4.4. Improvement of terminal building (₹ 6 crores in FY 2020-21)

The existing terminal building with 20,000 Sq.m carpet area is very old and requires improvement of facilities like renovation of toilets, expansion of arrival hall with one more conveyor belt, increase in check in counters with expansion of departure conveyor, expansion of security hold area, baggage make up area etc. for passenger facilitation so that it can sustain the heavy growth of passenger movement for next 3-4 years until the new terminal building is constructed and commissioned. Hence the work is taken up.

AAI has proposed to consider aeronautical capital expenditure towards improvement of terminal building based on 89.02% ratio for the 2nd control period (₹ 5.3 crores under Building Terminal in FY 2020-21).

8.2.4.5. Construction of integrated terminal building (₹ 1,232 crores total, ₹ 616 crores total under Building Terminal in FY 2020-21 and ₹ 616 crores total under Electrical installation in FY 2020-21)

The existing terminal building has saturated. In view of the future traffic growth at Guwahati airport, there is a requirement for construction of

integrated terminal building. The integrated terminal building with area of 77,500 Sq.m. (excluding service area as per requirement in basement) shall be designed for 2,900 domestic and 200 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 and finally to match level of service "C" in the year of saturation. However, as per the clarification provided dated 21.11.2017, total area for integrated terminal is revised 90,000 Sq.m.

AAI has proposed to consider aeronautical capital expenditure towards construction of integrated terminal building based on 89.02% ratio for the 2nd control period (₹ 548.4 crores under Building Terminal in FY 2020-21 and ₹ 548.4 crores under Electrical Installation in FY 2020-21).

8.2.4.6. City side expansion of terminal building (₹ 23 crores in FY 2018-19)

The capital expenditure is required for expansion of terminal building and to cater to more passengers. The new building would come up in the year 2021 and hence, the present capital expenditure is essential.

8.2.5. Building – Residential

8.2.5.1. Construction of quarters for AAI's staff (₹ 30 crores total in FY 2020-21)

The residential colony is already saturated as staff strength has hugely increased in all discipline of ANS/OPS/Engineering/Fire etc. to cater to the need of huge increase in traffic and passenger movement. There is requirement of 24 hours ATC watch in near future which will further increase requirement of staff in almost all discipline. Accordingly residential quarters of different types in large numbers have to be constructed to accommodate the increased staff strength of AAI. Hence this work is required.

AAI has proposed to consider aeronautical capital expenditure towards construction of quarters for AAI's staff based on 41% ratio for the 2nd control period (₹ 12.4 crores under Building Terminal in FY 2017-18).

8.2.6. Boundary Wall – Operational

8.2.6.1. Construction of boundary wall around acquired land (₹ 8 crores total in FY 2018-19)

Around 75 acres of land on runway 02 and runway 20 side was acquired and mutated in the name of AAI. This land is required for development of airport with facilities for isolation bay, new ATC cum control tower and other future development. This land was required to be safe guarded with construction of boundary wall all around to avoid encroachment and to include the land within the operational area. Accordingly this work has been taken up and is in progress.

Authority's Examination

8.3. The Authority requested AAI to submit the aeronautical capital expenditure incurred in FY 2016-17 and in 2nd control period based on actual capital expenditure in FY 2016-17. In response to this, AAI vide submission dated 10.08.2017 and 21.11.2017 provided the revised aeronautical capital expenditure to be incurred in 2nd control period.

8.4. The Authority proposes to exclude land related capital expenditure (₹ 30 crores in FY 2020-21 under Land) from the aeronautical capital expenditure in the 2nd control period as per Para 4.14.

8.5. The Authority proposes to consider aeronautical capital expenditure towards perimeter road and lighting watch tower as ₹ 20 crores under Road, Bridges & Culverts in FY 2019-20 as submitted by AAI dated 10.08.2017.

8.6. The Authority proposes to consider other minor aeronautical capital expenditure for Road, Bridges & Culverts (₹ 0.4 crore) in FY 2017-18 as submitted by AAI dated 10.08.2017.

8.7. The Authority proposes to consider aeronautical capital expenditure for expansion and modification of terminal building based on 89% ratio as submitted by AAI dated 10.08.2017 (₹ 8.9 crores under Building – Terminal in FY 2017-18).

8.8. The Authority proposes to consider aeronautical capital expenditure towards construction of fire station as ₹ 10 crores under Building – Terminal in FY 2020-21 as submitted by AAI dated 21.11.2017.

- 8.9. The Authority noted that AAI has considered capital expenditure for construction of E&M workshop as purely aeronautical asset. The Authority requested for the clarification on the nature of the asset and aeronautical classification for the same. As per the clarifications provided dated 10.08.2017, AAI submitted that the vehicle ratio can be applied for E&M workshop. Accordingly, the Authority has modified aeronautical capital expenditure for construction of E&M workshop (₹ 9.7 crores under Building – Terminal in FY 2018-19) as per the clarification provided dated 21.11.2017.
- 8.10. As per the clarification provided dated 21.11.2017, AAI submitted additional capital expenditure for city side expansion of terminal building of ₹ 23 crores in FY 2018-19. The Authority proposed to consider capital expenditure for city side expansion of terminal building based on 89% ratio (₹ 20.5 crores under Building – Terminal in FY 2018-19).
- 8.11. The Authority proposes to consider aeronautical capital expenditure for construction of fire pit (₹ 0.6 crore in FY 2016-17) and improvement of terminal building (₹ 5.3 crore in FY 2020-21) under Building – Terminal as submitted by AAI dated 10.08.2017.
- 8.12. The Authority proposes to consider other minor capital expenditure related to terminal building (₹ 2.0 crore in FY 2017-18) based on 89% ratio towards aeronautical capital expenditure (revised to ₹ 1.8 crore in FY 2017-18) under Building – Terminal.
- 8.13. The Authority proposes to consider aeronautical capital expenditure towards construction of quarters for AAI's staff based on 41% ratio for the 2nd control period as submitted by AAI dated 10.08.2017 (₹ 12.4 crores under Building residential in FY 2020-21).
- 8.14. The Authority proposes to consider aeronautical capital expenditure for construction of boundary wall around acquired land (₹ 8 crores in FY 2018-19 under Boundary wall - Operational) as submitted by AAI dated 10.08.2017.
- 8.15. The Authority proposes to consider other minor aeronautical capital expenditure for electrical installation as submitted by AAI dated 10.08.2017 (Total amount is ₹ 1 crore in FY 2016-17 and FY 2017-18).
- 8.16. The Authority proposes to consider other minor aeronautical capital expenditure for plant & equipment, computers, software, CFT, furniture & fixtures and vehicle as

submitted by AAI dated 10.08.2017 (Total amount is ₹ 5.5 crore in FY 2016-17).

8.17. The Authority noted that the total capital expenditure for construction of parallel taxi track is ₹ 100 crores with total area of 209,000 Sq.m. and per sq. m. cost is ₹ 4,785 per Sq.m which is less than the inflation adjusted normative benchmark of ₹ 5,541 for Runway/taxiway and aprons in FY 2019-20. Therefore, the Authority proposes to consider capital expenditure for construction of parallel taxi track as provided by AAI dated 21.11.2017.

8.18. The Authority noted that the total capital expenditure for extension of runway and strengthening of runway, taxiway & apron is ₹ 120 crores. However, as per the clarification provided dated 21.11.2017, AAI submitted that cost for new construction is ₹ 58 crores (extension of runway phase 2 is ₹ 20 crores, construction of apron is ₹ 27 crores and construction of taxiway is ₹ 11 crores) and for re-carpeting work is ₹ 62 crores (re-carpeting of existing runway is ₹ 45 crores, re-carpeting of existing apron & taxiway is ₹ 13 crores and other misc. work is ₹ 4 crores).

8.18.1. For new construction work of ₹ 58 crores, total area to be constructed is 107,560 Sq.m. and construction cost per Sq.m is ₹ 5,392 which is less than the inflation adjusted normative benchmark of ₹ 5,541 for Runway/taxiway and aprons in FY 2019-20. The Authority proposes to consider total construction cost of ₹ 58 crores for extension of runway.

8.18.2. For re-carpeting work of ₹ 62 crores, the re-carpeting of existing runway would be charged off in the FY 2017-18 and FY 2018-19 amounting to ₹ 20 crores and ₹ 25 crores respectively whereas re-carpeting of existing apron and taxiways including other misc. works would be charged off in the FY 2019-20 amounting to ₹ 17 crores. The Authority proposes not to consider the re-carpeting costs as part of capital expenditure and proposes to consider it as one time R&M expenses in the respective years.

8.19. The Authority noted that the total capital expenditure for construction of integrated terminal building is ₹ 1,232 crores with total area of 90,000 Sq.m. and per sq. m. cost is ₹ 136,889 per Sq.m which is more than inflation adjusted normative benchmark of ₹ 79,846 for terminal building in FY 2020-21. The Authority requested AAI to provide

justification for higher than normative benchmark costs. As per the clarifications provided dated 21.11.2017, AAI provided the detailed break-up of terminal capital expenditure as given in the table below:

Table 26 - Capital expenditure for integrated terminal building as submitted by AAI

S.N.	Particulars	₹ crore
A	Total Cost of New Terminal Building	1,232.0
B	Components not considered in Normative Approach.	
1	Superior sanitary fixtures/auto sensors for urinals as per GRIHA rating	1.0
2	Development of site, Internals Roads	3.3
3	Fly over	20.0
4	Art work/murals etc.	8.0
5	Superior finishes like ACP cladding, ACP ceiling, Skylight, Metal façade	15.0
6	Horticulture operations	1.1
7	City side canopy over elevated road/departure curve	10.0
8	Art work	9.2
9	STP	3.0
10	Internal for special lights fixtures	10.9
11	Lightening protection system	1.5
12	Aerobridges (10 nos.)	30.0
13	Additional escalators proposed more than proportionate requirement as per SQM (12-4) 8 nos.	3.6
14	Additional elevators proposed more than proportionate requirement as per SQM (17-11) 6 nos.	2.4
15	E&M high side	16.8
16	Additional HVAC load required	3.0
17	Building Management system	1.8
18	Maintenance Hoist	2.0
19	LED lighting in landscape	1.5
20	STP (Electro- mechanical equipment)	3.0
21	In line (check – in) baggage system	38.0
22	Solar power generation system	5.4
23	X-ray machines (in-line)	9.7
24	Heat reflective high performance toughened glass glazing, Acoustic works, CLP/VIP lounges	5.0
25	Add contingencies @3%, PF and ESI reimbursement, GST, Escalation for 1 year @6%	256.4
	Total of B	461.6
	Total cost of the terminal building project less above items (A-B)	770.4
	Total terminal area Sq.m.	90,000
	Cost per Sq.m.	85,601

8.20. Additionally, as per the details provided dated 21.11.2017, AAI submitted the following justification for higher than normative costs -

8.20.1. Labour rates at Guwahati which is a class B city as per minimum wages circulated by office of Chief labour commissioner(C), New Delhi. The minimum wages of an unskilled labour is ₹ 448/- per day in Class B city (minimum wages as per notification F.No.1/13(3)/2017-LS-II dated 24/04/2017), whereas the minimum wages for unskilled labour during June 2016 at Cochin (Class B city) was ₹ 307/- per day, implying labour rate at Guwahati is 46% more compared to that at Cochin. Overall Impact due to low labour output on 25% labour component @12.5% = 3.125%

8.20.2. Electric supply rate at Guwahati is ₹ 8.50 per KWh, whereas at Cochin it is ₹ 7.30 per KWh. Overall cost impact will be around 0.8%.

8.20.3. The proposed terminal building at Guwahati shall be designed with a Green Building concept to achieve GRIHA 4 star rating, which shall be maintenance friendly and hybrid type, wherein the features of renewable energy (by providing solar panels), natural lighting within terminal building concept will be captured.

8.20.4. The construction of the terminal building of Cochin was started during 2012. The rate per Sq.m for Cochin International Airport was worked out during June 2016 as circulated by Airports Economic Regulatory Authority of India vide F.No.AERA/20010/Normative Approach/2014-15 which was ₹ 65,000 per Sq.m. The escalation from 2014 (middle of 2012 and 2016 is considered as execution of work was done during year 2012 to year 2017) to current date will be around 26% @simple rate of 6.5% increase per year.

8.20.5. Considering 75% towards material and 25% towards labour, the additional cost on increase labour wages will be $(₹ 65,000 \times 25\%) \times 46\% = ₹ 7,475$ per Sq.m.

8.20.6. Considering 75% towards material and 25% towards labour, the additional cost on increase in material will be $(₹ 65,000 \times 75\%) \times 26\% = ₹ 12,680.07$ per Sq.m.

8.20.7. Add for low labour output on 25% labour component @12.5% over ₹ 65,000/- per Sq.m = ₹ 2,031.25 per Sq.m

8.20.8. Add 5% for disturbed area over ₹ 65,000/- per Sq.m = ₹ 3,250 per Sq.m

8.20.9. Total Justified Rate = (₹ 65,000.0 + ₹ 7,475.0 + ₹ 12,680.07 + ₹ 2,031.25 + ₹ 3,250.0) = ₹ 90,436.32 per Sq.m whereas, the rate per Sq.m as per normative approach of Guwahati Terminal Building is ₹ 85,601.0 per Sq.m

8.21. The Authority noted that as per AAI submission the capital expenditure for new integrated terminal building is likely to be completed by Feb 2021 and is tentative. The Authority is of the view that there are reasonable chances that the terminal may not be commissioned in the 2nd control period due to time overrun. The tariffs proposed by AAI at Guwahati Airport are lower than the allowable tariffs to recover the ARR determined by the Authority. Hence, the Authority notes that there will be shortfall in the 2nd control period even after excluding the aeronautical capital expenditure of terminal building from RAB and the shortfall will further increase if the capital expenditure for terminal building is included in the 2nd control period and return is given for remaining 2 months of FY 2020-21. Hence, the Authority proposes to exclude the capital expenditure towards new integrated terminal building from aeronautical RAB while determining the tariffs for 2nd control period. In case, AAI incurs the capital expenditure towards expansion of terminal building and capitalizes the same during the 2nd control period, it will be trued up while determining tariff for 3rd control period.

8.22. The Authority proposes to consider the total aeronautical capital expenditure to be capitalized and added to RAB at ₹ 261.9 crores.

Table 27 - Revised aeronautical capital expenditure for 2nd control period as considered by the Authority

S.N.	Particulars (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
1	Land	0.0	0.0	0.0	0.0	0.0
2	Runways	0.0	0.0	0.0	158.0	0.0
3	Road, Bridges & Culverts	0.0	0.4	0.0	20.0	0.0
4	Building- Terminal	0.6	10.7	29.8	0.0	15.6
5	Building - Residential	0.0	0.0	0.0	0.0	12.4
6	Boundary Wall -Operational	0.0	0.0	8.0	0.0	0.0
7	Electrical Installations	0.8	0.1	0.0	0.0	0.0
8	Plant & Equipment	5.3	0.0	0.0	0.0	0.0

S.N.	Particulars (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
9	Computers	0.1	0.0	0.0	0.0	0.0
10	Software	0.0	0.0	0.0	0.0	0.0
11	CFT	0.0	0.0	0.0	0.0	0.0
12	Furniture & Fixtures	0.0	0.0	0.0	0.0	0.0
13	Vehicle	0.0	0.0	0.0	0.0	0.0
	Total (₹ 261.9 crores)	6.9	11.2	37.8	178.0	28.0

8.23. The Authority notes that the cost of the planned works is indicative. The Authority proposes to consider the addition to aeronautical assets during the 2nd control period as given in Table 27 subject to true-up of RAB based on actual aeronautical asset addition while determining tariffs for the 3rd control period.

8.24. In the 2nd control period, project works related to construction of parallel taxi track and ancillary works, extension of runway and strengthening of runway, taxiway and apron, perimeter road and lighting watch tower, construction of integrated terminal building, expansion and modification of terminal building, city side expansion of terminal building, construction of E&M work shop, construction of fire station, construction of quarters for AAI's staff and construction of boundary land around acquired land are proposed to be taken up. AAI has provided AUCC document for all the major development works except for construction of quarters for AAI's staff. 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.

Proposal No. 5. Capital Expenditure

5.a. The Authority proposes to consider allowable project cost of ₹ 261.9 crores and accordingly to reckon the amount of ₹ 261.9 crores as addition for total assets during the 2nd control period.

5.b. AAI should undertake user stakeholder consultation process for major capital expenditure items as per the Guidelines.

5.c. The Authority proposes 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.

9. Depreciation

9.1. 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:

9.1.1. Method of depreciation: straight line;

9.1.2. 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;

9.1.3. 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

9.2. The Authority notes 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.

9.3. The Authority notes 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 notes 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.

9.4. In this regard, the Authority has separately commissioned a study to determine appropriate depreciation rates for regulation of airports in line with the provisions of the Companies Act 2013. The Authority proposes to consider the recommendations of the study on depreciation and finalize the depreciation rates in consultation with the stakeholders. It shall make necessary adjustments in RAB and true up of depreciation while considering tariff determination in future.

9.5. 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 proposes 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 1st and 2nd control period.

9.6. The Authority proposes 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.

9.7. The Authority proposes that for the new assets to be capitalized in the 2nd control period, depreciation is charged at 50% of the depreciation rates in the year of capitalization.

9.8. The depreciation rates as submitted by AAI and as considered by the Authority during the 1st and 2nd control period are given below:

Table 28 - 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%	0%
2	Runways	13%	3%	3%
3	Taxiway	13%	3.33%	3.33%
4	Aprons	13%	3.33%	3.33%
5	Road, Bridges & Culverts	13%	1.63%	3.33%
6	Building- Terminal	8%	1.63%	3.33%
7	Building – Temporary	100%	100.00%	33.33%
8	Building – Residential	5%	1.63%	3%
9	Security Fencing - Temporary	100%	100.00%	33.33%
10	Boundary Wall -Operational	8%	1.63%	3%
11	Boundary Wall - Residential	5%	1.63%	3.33%
12	Computer & Peripherals	20%	16.21%	16.67%
13	Intangible Assets- Software	20%	20.00%	20.00%
14	Plant & Machinery	11%	4.75%	6.67%
15	Tools & Equipment	20%	4.75%	6.67%
16	Office Furniture	20%	6.33%	10.00%
17	Other Vehicles	14%	9.50%	12.50%
18	Vehicle- Cars & Jeeps	14%	9.50%	13%
19	Electrical Installations	11%	4.75%	10.00%

No.	Asset Class	As per AAI	As per Authority till FY 2014	As per Authority FY2015 onwards
20	Other Office Equipment	18%	4.75%	20.00%
21	Furniture & Fixtures-Other than office	20%	6.33%	10.00%
22	X Ray Baggage System	11%	4.75%	6.67%
23	CFT/Fire Fighting Equipment	13%	4.75%	6.67%

9.9. The revised depreciation for the 2nd control period as per Hybrid Till as proposed by the Authority is given below:

Table 29 - Authority's consideration on depreciation for the 2nd control period – Hybrid Till

No.	Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21	Total
1	As per AAI	11.4	5.9	6.6	25.1	131.1	180.1
2	As per Authority	6.1	6.3	7.0	10.3	13.3	43.0

Proposal No. 6. Treatment of Depreciation

6.a. The Authority proposes to adopt depreciation rates as per Table 28 and depreciation for the 2nd control period as per Table 29.

6.b. The Authority proposes to consider the recommendations of the study on depreciation and finalize the depreciation rates in consultation with the stakeholders. It shall make necessary adjustments in RAB and true up of depreciation while considering tariff determination in future.

10. RAB for Second control period

10.1. AAI has submitted Regulatory Asset Base for 2nd control period under Hybrid Till as follows:

Table 30 - Summary of the RAB and Depreciation for LGBIA (Airport Services) as per AAI for the 2nd control period

	Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
A	Opening Aeronautical RAB	70.2	61.2	65.3	76.6	201.5
B	Aeronautical Additional Assets capitalized during the year	2.4	9.9	18.0	150.0	1,127.0
C	Disposals/Transfers					
D	Depreciation	11.4	5.9	6.6	25.1	131.1
E	Closing Aeronautical RAB (A+B-C-D)	61.2	65.3	76.6	201.5	1,197.3
	Average RAB (A+E)/2	65.7	63.2	70.9	139.1	699.4

Authority's Examination

10.2. The Authority proposes to adopt opening RAB for FY 2016-17 as detailed in Table 24.

10.3. The Authority proposes to adopt depreciation as proposed in Table 29.

10.4. The Authority proposes ₹ 261.9 crores as the addition of aeronautical assets to RAB as detailed in Table 27.

10.5. During the discussion with AAI, it was noted that for FY 2016-17 AAI had continued to handle cargo operations at the LGBIA. As per AAI's submission dated 27.11.2017, the Authority notes that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for LGBIA. 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. However, as per the clarification provided dated 27.11.2017, no cargo assets have been considered as part of MYTP calculations for 1st and 2nd control period and no adjustment made to RAB on account of cargo assets. Further, the Authority notes 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.

10.6. The revised Regulatory Asset Base as calculated by the Authority for 2nd control CP No. 32/2017-18 dated 22.12.2017

period under Hybrid Till is as follows:

Table 31 - Summary of forecast and Roll forward RAB and Depreciation for LGBIA (Airport Services) considered by the Authority for 2nd control period – Hybrid Till

	Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
A	Opening Aeronautical RAB	65.5	66.3	71.2	102.0	269.7
B	Aeronautical Assets capitalized during the year	6.9	11.2	37.8	178.0	28.0
C	Disposals/Transfers					
D	Depreciation	6.1	6.3	7.0	10.3	13.3
E	Closing Aeronautical RAB (A+B-C-D)	66.3	71.2	102.0	269.7	284.4
	Average RAB (A+E)/2	65.9	68.8	86.6	185.9	277.1

10.7. The Authority proposes to true up the RAB of 2nd control period based on actual asset addition and revised depreciation rates, at the time of determination of tariff for the 3rd control period.

Proposal No. 7. RAB for 2nd control period

7.a. The Authority proposes to consider RAB for 2nd control period as given in Table 31

7.b. The Authority proposes to true up the RAB of 2nd control period based on actual asset addition and revised depreciation rates based on the outcome of the study commissioned by the Authority, at the time of determination of tariff for the 3rd control period.

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

11.1. 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 1st control period.

11.2. AAI has not apportioned any debt for LGBIA. FRoR is as per what has been adopted for AAI as a whole.

Authority's Examination

11.3. 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.

11.4. The Authority notes 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 notes that it has considered FRoR at 14% for Chennai and Kolkata airport in the 1st control period considering the recommendations of another study done by NIPFP. Based on the decision taken for Chennai and Kolkata airport, the Authority considered FRoR at 14% for Guwahati and Lucknow airport for 1st control period.

11.5. Based on the above, the Authority proposes to consider FRoR at the rate of 14% for LGBIA for the 1st and 2nd control period as submitted by AAI.

Proposal No. 8. FRoR

8.a. The Authority proposes to consider the FRoR at 14% for LGBIA for the 1st and 2nd control period.

8.b. The Authority will undertake a study to determine FRoR for major AAI airports given the low debt structure of AAI as a whole.

12. Revenue from services other than aeronautical services

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

Table 32 - Revenue from Non-aeronautical Services – Projected by AAI for 2nd 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	Revenues from Restaurants / Snack Bar	1.6	1.8	2.0	2.3	2.6	3.3
2	Revenues from TR Stalls	1.3	1.5	1.7	2.0	2.3	2.8
3	Revenues from Hoarding & Display	1.2	1.4	1.6	1.8	2.0	2.5
4	Building (Non-Residential)	4.9	5.6	6.4	7.3	8.3	10.4
5	Hangars	0.7	0.8	0.9	1.0	1.1	1.2
6	Land Leases	5.2	5.6	6.0	6.4	6.9	8.6
7	Building (Residential)	0.0	0.0	0.0	0.0	0.0	0.0
8	Car Parking	2.6	2.8	3.1	3.4	3.8	4.7
9	Revenues from Public Admission Fees, season tickets	0.3	0.3	0.3	0.4	0.4	0.6
10	Flight Catering Services	0.2	0.2	0.2	0.3	0.3	0.4
11	Revenues from Interest Income	0.1	0.1	0.1	0.1	0.1	0.1
12	Other Misc. receipts	1.3	1.3	1.3	1.3	1.3	1.3
	Total	19.3	21.3	23.6	26.2	29.1	35.8

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

Table 33 – Assumption (growth rates) for Service other than Regulated Services for the 2nd Control Period as per AAI

No.	Particular	2016-17	2017-18	2018-19	2019-20	2020-21
1	Revenues from Restaurants / Snack Bar	14%	14%	14%	14%	25%
2	Revenues from TR Stalls	14%	14%	14%	14%	25%
3	Revenues from Hoarding & Display	14%	14%	14%	14%	25%
4	Building (Non-Residential)	14%	14%	14%	14%	25%
5	Hangars	10%	10%	10%	10%	10%
6	Land Leases	7.5%	7.5%	7.5%	7.5%	25.0%
7	Building (Residential)	0%	0%	0%	0%	0%
8	Car Parking	10%	10%	10%	10%	25%
9	Revenues from Public Admission Fees, season tickets	14%	14%	14%	14%	25%
10	Flight Catering Services	14%	14%	14%	14%	25%

11	Revenues from Interest Income	10%	10%	10%	10%	10%
12	Other Misc. receipts	0%	0%	0%	0%	0%

Authority's Examination

12.3. The Authority noted that as per the clarifications provided dated 10.08.2017, AAI submitted that the projected growth rate for non-aeronautical revenues in the 2nd control period has been revised as 10% annual growth rate except land rent where the escalation rate is 7.50% p.a. as per contractual agreements. The Authority proposes to consider the growth rates for non-aeronautical revenues as submitted by AAI dated 10.08.2017 for the determination of tariff for the 2nd control period since these are based on contracts/ agreements signed by AAI.

12.4. The Authority proposes 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 proposes to accept the revenues from services other than regulated services as submitted by AAI except for adjustments as detailed below.

Adjustment of lease rentals

12.5. 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 34 – Details of land allotted to cargo, ground handling and supply of fuel service providers in 2nd control period

Service	Service Provider	Land Allocated (Sq.m)		Land Lease revenues (FY 2015-16) ₹ crore
		Paved	Unpaved	
Fuel	RIL	1,600	-	0.19
Fuel	IOCL	6,486.6	-	0.75
Ground Handling	Janus Aviation	24	-	0.003
Cargo	Air India	908.28	-	0.01

Service	Service Provider	Land Allocated (Sq.m)		Land Lease revenues (FY 2015-16)
				₹ crore
Cargo	Indigo	138.5	-	0.09
Cargo	Jet Airways	167.43	-	0.11
Cargo	Spice Jet	23.17	-	-
Cargo	Indigo (Warehouse)	1,155	-	0.15

12.6. Additionally, AAI has mentioned that no space is allotted to GHA.

12.7. AAI has created a wholly owned subsidiary AAI Cargo Logistics and Allied Services Company Ltd (AAICLAS) in the FY 2016-17. The proposal for cargo activities will be filed separately by AAICLAS for determination of cargo tariff in the 2nd control period. As per the clarifications received from AAI dated 10.08.2017, AAI will not receive any revenue from AAICLAS for the 2nd control period for cargo operations. As per the clarifications provided dated 04.10.2017, AAI confirmed that revenue, expense and assets related to cargo have not been taken into account while calculating MYTP for 2nd control period. As per AAI's submission dated 27.11.2017, the Authority notes that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for LGBIA. 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 determining tariffs in the second control period. Further, the Authority notes that there is no clarity on the revenue received by AAI from AAICLAS's cargo operations at LGBIA. The Authority, at present, can assume 20% to 30% revenue from cargo operations will be received by AAI. However, since there is no clarity on the revenue sharing mechanism between AAI and AAICLAS and given the fact that there is a shortfall with the proposed tariffs, the Authority has decided to not 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.

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

12.9. The Authority noted that AAI in their submission dated 28.03.2017 have increased land lease rentals from cargo, ground handling agencies and oil companies by 7.5% per annum and proposes to accept the same.

12.10. The Authority proposes to consider land lease revenues and building non-residential rent revenues on account of the aeronautical services of CGF as aeronautical revenue.

12.11. As part of the clarifications provided dated 10.08.2017, AAI submitted that no change in non-aeronautical area is proposed in the second control period. The terminal building will come up in the second half of FY 2020-21. As per the clarification provided dated 04.10.2017, AAI submitted that the terminal building will come up in 2nd half of FY 2020-21 and non-aeronautical revenue has been increased in the FY 2020-21 as per contractual agreements. All revenue would increase by 10% except 7.5% as land lease and no increase in other miscellaneous receipt during the second control period. The real effect / impact will be in 3rd control period.

12.12. The Authority also noted that building non-residential revenue in FY 2015-16 used as base number for projections during the 2nd control period (₹ 4.9 crore) is not matching with trial balance for FY 2015-16 (₹ 2.1 crore). As part of the clarifications provided dated 10.08.2017, AAI submitted that revenue from Building Non-residential has been inadvertently revised in the 2nd control period. The revised figures may be taken as per trial balance for FY 2015-16. The Authority accordingly proposes to correct the building non-residential revenues for FY 2015-16 to ₹ 2.1 crore.

12.13. The Authority also noted that land lease revenue in FY 2015-16 used as base number for projections during the 2nd control period (₹ 4.9 crore) is not matching with trial balance for FY 2015-16 (₹ 5.1 crore). As part of the clarification provided dated 10.08.2017, AAI submitted that revenue from land lease has been inadvertently revised in the 2nd control period. The revised figures may be taken as per trial balance for FY 2015-16. The Authority accordingly proposes to correct the land lease revenues for FY 2015-16 to ₹ 5.1 crore. However, as part of the clarification provided dated 21.11.2017, AAI submitted that the break-up of land lease which was booked in the region is ₹

97.25 lacs instead of ₹ 482.23 Lacs as shown in the trial balance for FY 2015-16 and the same needs to be corrected. The Authority accordingly revised the total land lease revenues for FY 2015-16 to ₹ 1.3 crore.

12.14. The Authority noted that hangars charges have been considered as non-aeronautical revenues and hangar assets have been excluded from Regulatory Asset Base.

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

12.16. The Authority proposes to consider non-aeronautical revenues as given below:

Table 35 –Revenue from Non-aeronautical Services as considered by the Authority for 2nd 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	Revenues from Restaurants / Snack Bar	1.6	1.7	1.9	2.1	2.3	2.5
2	Revenues from TR Stalls	1.3	1.5	1.6	1.8	2.0	2.1
3	Revenues from Hoarding & Display	1.2	1.3	1.5	1.6	1.8	1.9
4	Building (Non-Residential)	2.0	2.2	2.4	2.7	3.0	3.2
5	Hangars	0.7	0.8	0.9	1.0	1.1	1.2
6	Land Leases	0.0	0.0	0.0	0.0	0.0	0.0
7	Building (Residential)	0.0	0.0	0.0	0.0	0.0	0.0
8	Car Parking	2.6	2.8	3.1	3.4	3.8	4.2
9	Revenues from Public Admission Fees, season tickets	0.3	0.3	0.3	0.4	0.4	0.4
10	Flight Catering Services	0.2	0.2	0.2	0.2	0.3	0.3
11	Revenues from Interest Income	0.1	0.1	0.1	0.1	0.1	0.1
12	Other Misc. receipts	1.3	1.3	1.3	1.3	1.3	1.3
	Total	11.2	12.2	13.3	14.5	15.8	17.3

Proposal No. 9. Non Aeronautical Revenues

9.a. The Authority proposes to consider the revenues accruing to AAI on account of the aeronautical services of Cargo facility, Ground Handling Services and Supply of fuel to aircraft (FTC) including land lease rentals and building rent from these activities as aeronautical revenue.

9.b. The Authority proposes to consider the Non Aeronautical Revenue as per Table 35

9.c. The Authority proposes 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.

13. Operation and Maintenance Expenditure

13.1. 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

13.2. Summary of aeronautical expenses proposed by AAI for 2nd control period is as below:

Table 36 - Summary of Aeronautical O&M expenditure as submitted by AAI for 2nd control period on Hybrid Till

No.	Particulars (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
1	Pay roll Expenditure of LGBIA	20.3	25.4	27.6	30.1	32.8
2	Expenditure for LGBIA employees' retirement benefits allocated at CHQ	3.6	4.5	4.7	4.9	5.2
3	Common Expenses related to ANS	2.0	2.5	2.7	2.9	3.2
A	Total Pay roll Expenditure (1+2-3)	21.8	27.3	29.6	32.0	34.7
4	Administrative and General Expenditure	3.2	3.6	3.9	4.3	4.7
5	Apportionment of administration & General expenditure of CHQ/RHQ	13.8	14.5	15.2	15.9	16.7
B	Total Administration & General Expenditure(4+5)	17.0	18.0	19.1	20.3	21.5
C	Repairs and Maintenance Expenditure (Total)	6.2	6.8	7.5	8.3	9.1
6	Power Charges	3.4	3.4	3.4	3.4	3.4
7	Other expenses	0.4	0.5	0.5	0.6	0.6
D	Utility and Outsourcing Expenditure (6+7)	3.8	3.9	3.9	4.0	4.0
E	Other Outflows	0.3	0.4	0.4	0.4	0.5
	Total (A+B+C+D+E)	49.2	56.4	60.5	65.0	69.8

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

Table 37 – Assumptions made by AAI for each item of O&M expenditure

No.	Particular	2016-17	2017-18	2018-19	2019-20	2020-21
1	Payroll Expenses*					
	Salaries and Wages	9%	25%	9%	9%	9%
	Overtime	5%	25%	5%	5%	5%

No.	Particular	2016-17	2017-18	2018-19	2019-20	2020-21
	Other staff benefits	9%	25%	9%	9%	9%
	Medical expenditure	9%	25%	9%	9%	9%
	Provident fund contribution	9%	25%	9%	9%	9%
	Apportionment of CHQ/RHQ expenses	5%	25%	5%	5%	5%
2	R&M Expenses	10%	10%	10%	10%	10%
3	Utility and outsourcing Expenditure					
	Power charges	0%	0%	0%	0%	0%
	Other expenses	10%	10%	10%	10%	10%
4	Administration and General Expenditure					
	Admin & General Expenses	10%	10%	10%	10%	10%
	Apportionment of CHQ/RHQ Expenses	5%	5%	5%	5%	5%
	Rates & Taxes	-33%	0%	0%	0%	0%
5	Other Outflows					
	UDF collection charges	20%	8%	8%	8%	8%

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

13.4. AAI has segregated total O&M expenditure for the 2nd control period into aeronautical expenses, non-aeronautical expenses, and common expenses. Common expenses in turn have been allocated between aeronautical and non-aeronautical services. AAI has not considered O&M expenses related to cargo services as part of MYTP submission for 2nd control period.

13.5. Expense allocation as submitted by AAI for 2nd control period is tabulated below:

Table 38 – O&M Expense allocation as submitted by AAI

Sr. No.	Particulars	Aero Expense	Non-Aero Expense
1	Payroll Expenses - Non-CHQ	97%	3%
2	Payroll Retirement benefit expenses Apportionment – CHQ	100%	0%
3	Admin and General Expenses – Non CHQ	92%	8%
4	Admin and General overheads Expenses Apportionment – CHQ/RHQ	100%	0%
5	R&M Expenses	94%	6%
6	Utility and Outsourcing Charges	97%	3%
7	Other Outflows	100%	0%
	Total	97%	3%

Authority's Examination

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

Forecasting of payroll expenses

13.6.1. The Authority notes that payroll costs components – Salaries and Wages, medical benefits and PF contribution have been increased by AAI at the growth rate of 9% annually for 2nd control period except for FY 2017-18. These growth rates appear to be on a higher side. The Authority proposes growth rate of 7% for the above payroll components.

13.6.2. The Authority notes that expenditure on apportionment of retirement benefits provided to CHQ in respect of LGBIA employees is increased at 5% annually for 2nd control period which is different from the 7% for the above mentioned payroll components. The Authority proposes 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 LGBIA employees (as per discussion with AAI).

13.6.3. The Authority has noted that an increase of 25% has been projected in the pay roll expenditure in FY 2017-18 due to tentative increase in salary and wages on account of wage revision. The Authority notes that Public Sector Undertakings are covered under separate wage revision mechanism. Moreover, the Authority is of the view that as on date there is no actual evidence for the said outflow in FY 2017-18 and hence proposes to true up the expenditure in the 3rd control period. In view of above, an increase of 25% is proposed for projection of the pay roll expenditure for FY 2017-18 in line with the order issued for Trivandrum for the 2nd control period.

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

Segregation of aeronautical expenses

- 13.7. The Authority noted that the Payroll Costs in the operational expenditure have been allocated using percentage of employees for aeronautical services to total employees which is 97%. To account for common service employees handling both aeronautical and non-aeronautical activities, the Authority proposes to use ratio of 95% to 5% for allocation of payroll costs to aeronautical component after excluding cargo employees' costs based on ratio of cargo employees to total airport employees.
- 13.8. The Authority noted that apportionment of retirement benefits provided in CHQ in respect of Guwahati airport and apportionment of admin CHQ expenses have been considered as 100% aeronautical expenses. The Authority proposes 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 proposes 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 Guwahati airport after excluding cargo employees' costs based on ratio of cargo employees to total airport employees.
- 13.9. The Authority noted that the expenses related to vehicles such as R&M – Vehicles, consumption of petrol/ lubricant, vehicle insurance, vehicle hire charges etc. have been considered 100% aeronautical expense. The Authority proposes to allocate aforementioned expenses using employee ratio into aeronautical and non-aeronautical expenses.
- 13.10. Terminal Area ratio for calculation of aeronautical assets is proposed as 89%. This ratio has been applied to specific expenses in R&M – Civil, R&M – Electrical, consumption of stores and consumables.
- 13.11. 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 10.08.2017, 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 27.11.2017, the Authority notes that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for LGBIA. 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 determining tariffs 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.

Correction in projection

13.12. As per the clarification received dated 21.11.2017, AAI submitted that for re-carpeting works of ₹ 62 crores, the re-carpeting of existing runway would be charged off in the FY 2017-18 and FY 2018-19 amounting to ₹ 20 crores and ₹ 25 crores respectively whereas re-carpeting of existing apron and taxiways including other misc. works would be charged off in the FY 2019-20 amounting to ₹ 17 crores. The Authority has noted AAI's submission on runway re-carpeting. The Authority has assumed 5 years as the life for the expenditure on the runway re-carpeting and proposes to amortize the total amount of runway re-carpeting expenditure of INR 62 cr. equally in the 5 years, that is, FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21 and FY 2021-22.

13.13. As part of the clarification provided dated 21.11.2017, AAI submitted that since the airport will become operational for 24 hours starting from 01.04.2018, the approximate increase in O&M expenses due to 24 hours operation is 20% of the operating expenditure excluding apportionment of CHQ & RHQ overheads, rates & taxes, insurance cost, legal & professional fees and civil works for the FY 2018-19 to FY2020-21. The same would be trued up while finalising tariff determination of 3rd control period. Accordingly, the Authority proposes to consider the increase in O&M expenses from FY 2018-19 onwards.

13.14. The O&M expenditure for FY2015-16 which includes both aeronautical and non-aeronautical expense is given in the table below:

Table 39 – Total O&M expenditure for FY 2015-16 as proposed by the Authority

No.	Particulars (₹ crore)	2015-16
1	Pay roll Expenditure of LGBIA	19.3
2	Expenditure for LGBIA employees' retirement benefits allocated at CHQ	3.4
3	Less - Common Expenses related to cargo, commercial and land	2.0
A	Total Pay roll Expenditure (1+2-3)	20.7
4	Administrative and General Expenditure	3.2
5	Apportionment of administration & General expenditure of CHQ/RHQ	13.1
B	Total Administration & General Expenditure(4+5)	16.3
C	Repairs and Maintenance Expenditure (Total)	6.0
6	Power Charges	3.5
7	Water Charges	0.0
8	Others	0.4
D	Utility and Outsourcing Expenditure (6+7+8)	3.9
E	Other Outflows	0.0
	Total (A+B+C+D+E)	46.9

13.15. Expense allocation proposed to be considered by the Authority after above changes for 2nd control period is tabulated below:

Table 40 – Expense allocation between aeronautical and non-aeronautical services proposed by the Authority

Sr. No.	Particulars	Aero Expense	Non-Aero & Cargo expenses
1	Payroll Expenses - Non-CHQ	94%	6%
2	Payroll Retirement benefit expenses Apportionment – CHQ	94%	6%
3	Admin and General Expenses – Non CHQ	97%	3%
4	Admin and General overheads Expenses	89%	11%

Sr. No.	Particulars	Aero Expense	Non-Aero & Cargo expenses
	Apportionment – CHQ/RHQ		
5	R&M Expenses	92%	8%
6	Utility and Outsourcing Charges	97%	3%
7	Other Outflows	100%	0%
	Total	93%	7%

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

Table 41 - Summary of Aeronautical O&M expenditure as per the Authority for the 2nd control period as per Hybrid Till

No.	Particulars (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
1	Pay roll Expenditure of LGBIA	19.6	24.3	31.2	33.4	35.7
2	Expenditure for LGBIA employees' retirement benefits allocated at CHQ	3.4	4.3	4.6	4.9	5.2
3	Less - Common Expenses related to cargo, commercial and land	2.0	2.5	3.2	3.4	3.6
A	Total Pay roll Expenditure (1+2-3)	21.0	26.1	32.7	34.9	37.4
4	Administrative and General Expenditure	3.3	3.6	4.6	5.1	5.6
5	Apportionment of administration & General expenditure of CHQ/RHQ	12.4	12.9	13.5	14.2	14.9
B	Total Administration & General Expenditure(4+5)	15.7	16.4	18.2	19.3	20.5
6	Re-carpeting of runways, aprons and taxiways	0.0	12.4	12.4	12.4	12.4
7	Other Repair and Maintenance Expenditure	6.0	6.6	8.1	8.9	9.8
C	Repairs and Maintenance Expenditure (6+7)	6.0	19.0	20.5	21.3	22.2
8	Power Charges	3.4	3.4	4.1	4.1	4.1
9	Others	0.4	0.5	0.6	0.7	0.7
D	Utility and Outsourcing Expenditure (8+9)	3.8	3.9	4.7	4.8	4.8
E	Other Outflows	0.3	0.4	0.4	0.4	0.5
	Total (A+B+C+D+E)	46.9	65.8	76.5	80.8	85.4

13.17. It appears that O&M expenditure at LGBIA is on higher side and expects AAI to

reduce the O&M expenditure over a period of time.

Proposal No. 10. Operation and Maintenance expenditure

- 10.a. The Authority proposes to consider the operational and maintenance expenditure as given in Table 41 above, for the purpose of determination of aeronautical tariffs for the 2nd control period.
- 10.b. The Authority expects AAI to reduce O&M expenditure over a period of time.
- 10.c. The Authority proposes to true up the O&M expenditure for 2016-17 to 2020-21 of the 2nd control period based on the actuals at the time of determination of tariffs for the 3rd control period.
- 10.d. The Authority proposes the following factors for corrections while determining tariffs for the next control period:
- (i) Mandated cost incurred due to directions issued by regulatory agencies like DGCA;
 - (ii) Cost of actual operating expenses including electricity;
 - (iii) All statutory levies in the nature of fees, levies, taxes and other such charges by Central or State Government or local bodies, local taxes, levies directly imposed on and paid by AAI on final product/service provided by AAI will be reviewed by the Authority for the purpose of corrections. Any additional expenditure by way of interest payments, penalties, fines and such penal levies associated with such statutory levies which AAI has to pay, for either any delay or non-compliance, the same may not be trued up.

14. Taxation

14.1. AAI has submitted tax calculations using provisional tax rate of 34.60 % for the 2nd 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

14.2. AAI vide their submissions dated 28.03.2017 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 proposes to exclude non-aeronautical component from revenues considered while determining tax for aeronautical services.

Adjustment of aeronautical capital expenditure

14.3. The Authority proposes to consider aeronautical capital expenditure of ₹ 261.9 crores as given in Table 27 while calculating depreciation as per IT Act

Adjustment of O&M Expenses

14.4. The Authority proposes to consider O&M expenses as given in Table 41.

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

14.5. The Authority proposes to modify total aeronautical revenues considering lease rentals from CGF as aeronautical as mentioned in Para 12.7

Continuation of existing tariffs in FY 2016-17

14.6. 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 01.02.2018 onwards.

Revised Tax as considered by the Authority

14.7. 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 42 - Amount of Tax for aeronautical services as per AAI submission and as calculated

by the Authority for the 2nd control period - Hybrid Till

Income Tax (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21	Total
As per AAI	10.7	14.5	17.0	13.7	0.0	55.8
As per Authority	16.5	10.4	10.7	12.9	20.1	70.6

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

Table 43 - Amount of Tax for aeronautical services as calculated by the Authority for the 2nd control period - Hybrid Till

Particular (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Aeronautical Revenues	101.6	110.5	128.6	145.8	165.4
Aeronautical O&M (excluding CHQ/ RHQ Overheads)	31.0	56.2	70.9	66.3	52.8
CHQ/ RHQ Overheads	15.9	17.2	18.1	19.1	20.2
Depreciation as per IT Act	7.0	7.1	8.8	23.1	34.3
PBT	47.8	30.0	30.8	37.4	58.2
Tax for aeronautical services	16.5	10.4	10.7	12.9	20.1

14.9. The Authority has considered the R&M expenses for runway re-carpeting as per actual cash outflow in FY 2017-18, FY 2018-19 and FY 2019-20 for the purposes of calculation of tax for aeronautical services.

14.10. The taxes actually paid/ apportioned in the 2nd control period are proposed to be trueed up after review in the next control period.

Proposal No. 11. Taxation

11.a. The Authority proposes the corporate tax for aeronautical activities as per Table 43 for the 2nd control period.

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

15. Aggregate Revenue Requirement for Second control period

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

Table 44 - ARR and Yield as per AAI for the 2nd control period – Hybrid Till

Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Average Aeronautical RAB	65.7	63.2	70.9	139.1	699.4
Return on Average Aeronautical RAB@14%	9.2	8.9	9.9	19.5	97.9
Aeronautical Operating Expenditure	49.2	56.4	60.5	65.0	69.8
Depreciation on aeronautical RAB	11.4	5.9	6.6	25.1	131.1
Aeronautical Corporate Tax @34.60%	10.7	14.5	17.0	13.7	0.0
Less- 30% of Non-Aeronautical Revenues	6.4	7.1	7.9	8.7	10.8
ARR as per AAI	74.1	78.5	86.2	114.5	288.1
Total ARR as per AAI	641.5				
No. of Passengers (as per Actual/Projected)	3,336,394	3,603,975	3,893,030	4,205,283	4,542,597
Discounted ARR	74.1	68.9	66.3	77.3	170.6
True up short fall in 1st control period as on 01.04.2016	212.4				
PV of ARR for the control period as on 01.04.2016	669.6				
Total Passengers during the control period	19,581,279				
Yield per passenger for the control period (PV of ARR for the control period/Total passengers during the control period)	341.9				

Authority's examination

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

15.3. The Authority has estimated the following ARR and yield for the 2nd control period under Hybrid Till based on various submissions of AAI and proposals considered by Authority in earlier sections on the building blocks.

Table 45 - ARR and Yield as per Authority for the 2nd control period – Hybrid Till

Details (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Average Aeronautical RAB	65.9	68.8	86.6	185.9	277.1
Return on Average Aeronautical RAB@14%	9.2	9.6	12.1	26.0	38.8
Aeronautical Operating Expenditure	46.9	65.8	76.5	80.8	85.4
Depreciation on aeronautical RAB	6.1	6.3	7.0	10.3	13.3
Aeronautical Corporate Tax @34.6%	16.5	10.4	10.7	12.9	20.1
Less – 30% of Non-Aeronautical Revenues	3.7	4.0	4.3	4.7	5.2
True up short fall in 1st control period as on 01.04.2016	108.0				
ARR as per Authority	183.1	88.1	101.9	125.3	152.5
Total ARR as per Authority	650.9				
Discounted ARR	183.1	77.3	78.4	84.6	90.3
PV of ARR for the control period as on 01.04.2016	513.6				
No. of Passengers (as per Projected)	3,789,656	4,168,622	4,585,484	5,044,032	5,548,435
Total Passengers during the control period	23,136,229				
Yield per passenger for the control period (PV of ARR for the control period/Total passengers during the control period)	222.0				
Target yield per pax	268.2	279.4	291.1	303.3	316.0
Target Aeronautical Revenues	101.6	116.5	133.5	153.0	175.4
PV of Target Aeronautical Revenues	513.6				

16. Annual Tariff Proposal

16.1. AAI has submitted ATP(s) for all years of the 2nd control period.

16.2. AAI has submitted the revision in tariff w.e.f. 01.04.2017 till 31.03.2021.

16.3. AAI has proposed for a scheme of rebate in landing charges depending on the number of landings per week.

16.4. Accordingly AAI has submitted the ATP(s) for 2nd control period in respect of LGBIA. The ATP for the tariff year FY 2017-18 onward (w.e.f. 01.02.2018) is annexed herewith for stakeholder consultation.

Authority's Examination

16.5. The Authority noted that AAI has not considered any revenues from cargo as part of aeronautical revenues for the 2nd control period. The Authority requested clarifications from AAI for the same. As per the clarifications provided by AAI dated 10.08.2017, AAI submitted that no cargo revenue to be received by AAI from AAICLAS during the 2nd control period. However, as per AAI's submission dated 27.11.2017, the Authority notes that the accounts for cargo operations are now booked (FY 2017-18) under AAICLAS for LGBIA. Hence, 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 determining tariffs in the second control period. Further, the Authority notes that there is no clarity on the revenue received by AAI from AAICLAS's cargo operations at LGBIA. The Authority, at present, can assume 20% to 30% revenue from cargo operations will be received by AAI. However, since there is no clarity on the revenue sharing mechanism between AAI and AAICLAS and given the fact that there is a shortfall with the proposed tariffs the Authority has decided to not 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.

16.6. The Authority noted that AAI has decreased landing charges as per the revised tariffs to be applicable from 01.04.2017 for domestic ATMs in order to have different landing

charges for international and domestic ATMs.

16.7. The Authority proposes to merge UDF and PSF (facilitation) charges and only UDF charges to be applicable on each domestic and international embarking passenger w.e.f. 01.02.2018.

16.8. The Authority noted that if the existing tariffs applicable at Guwahati airport are not changed for the second control period, there will be shortfall of ₹ 40.5 crore vis-à-vis ARR. The shortfall can either be met by increasing various aeronautical charges such as Landing, Parking & Housing and fuel throughput or increasing UDF or both. Even with the revised landing, parking & housing charges and fuel throughput charges, there is still aeronautical revenues shortfall left vis-à-vis ARR for which the UDF is increased to bridge the gap. After considering the revised landing, parking & housing and fuel throughput charges as proposed by AAI applicable from 01.02.2018, the resultant shortfall is INR ₹ 47.0 crore without the revised UDF. To bridge the remaining shortfall, AAI has proposed the revised UDF of ₹ 379 per departing domestic passenger and ₹ 499 per departing international passenger as given in Table 46.

16.9. The revised tariffs as applicable from 01.02.2018 as submitted by AAI and as proposed by the Authority are given in table below:

Table 46 - Revised aeronautical tariffs as submitted by AAI and as proposed by the Authority

Particular	Existing Tariff	Revised tariff by AAI	Revised tariff proposed by Authority
Rate per landing - International Flight			
Up to 20 MT	₹ 202.2 per MT		
Above 20 MT up to 50 MT	₹ 4,044 + ₹ 320.2 per MT in excess of 20 MT		
Above 50 MT up to 100 MT	₹ 13,650 + ₹ 328.1 per MT in excess of 50 MT		
Above 100 MT	₹ 30,055 + ₹ 438.2 per MT in excess of 100 MT		
Up to 25 MT		₹ 220 per MT	₹ 220 per MT
Above 25 MT up to 50 MT		₹ 5,500 + ₹ 330 per MT in excess of 25	₹ 5,500 + ₹ 330 per MT in excess of 25

Particular	Existing Tariff	Revised tariff by AAI	Revised tariff proposed by Authority
		MT	MT
Above 50 MT up to 100 MT		₹ 13,750 + ₹ 370 per MT in excess of 50 MT	₹ 13,750 + ₹ 370 per MT in excess of 50 MT
Above 100 MT up to 200 MT		₹ 32,250 + ₹ 460 per MT in excess of 100 MT	₹ 32,250 + ₹ 460 per MT in excess of 100 MT
Above 200 MT		₹ 78,250 + ₹ 490 per MT in excess of 200 MT	₹ 78,250 + ₹ 490 per MT in excess of 200 MT
Rate per Landing - Domestic Flight			
Up to 20 MT	₹ 202.2 per MT		
Above 20 MT up to 50 MT	₹ 4,044 + ₹ 320.2 per MT in excess of 20 MT		
Above 50 MT up to 100 MT	₹ 13,650 + ₹ 328.1 per MT in excess of 50 MT		
Above 100 MT	₹ 30,055 + ₹ 438.2 per MT in excess of 100 MT		
Up to 25 MT		₹ 160 per MT	₹ 160 per MT
Above 25 MT up to 50 MT		₹ 4,000 + ₹ 260 per MT in excess of 25 MT	₹ 4,000 + ₹ 260 per MT in excess of 25 MT
Above 50 MT up to 100		₹ 10,500 + ₹ 290 per MT in excess of 50 MT	₹ 10,500 + ₹ 290 per MT in excess of 50 MT
Above 100 MT up to 200 MT		₹ 25,000 + ₹ 360 per MT in excess of 100 MT	₹ 25,000 + ₹ 360 per MT in excess of 100 MT
Above 200 MT		₹ 61,000 + ₹ 410 per MT in excess of 200 MT	₹ 61,000 + ₹ 410 per MT in excess of 200 MT
Housing Charges			
Up to 40 MT	₹ 9.4 per MT per hour		
Above 40 MT up to 100 MT	₹ 376 + ₹ 17.50 per MT per hour in excess of 40 MT		
Above 100 MT	₹ 1,426 + ₹ 22.50 per MT per hour in		

Particular	Existing Tariff	Revised tariff by AAI	Revised tariff proposed by Authority
	excess of 100 MT		
Up to 25 MT		₹ 6 per MT per hour	₹ 6 per MT per hour
Above 25 MT up to 50 MT		₹ 150 + ₹ 8 per MT per hour in excess of 25 MT	₹ 150 + ₹ 8 per MT per hour in excess of 25 MT
Above 50 MT up to 100		₹ 350 + ₹ 16 per MT per hour in excess of 50 MT	₹ 350 + ₹ 16 per MT per hour in excess of 50 MT
Above 100 MT up to 200 MT		₹ 1,150 + ₹ 20 per MT per hour in excess of 100 MT	₹ 1,150 + ₹ 20 per MT per hour in excess of 100 MT
Above 200 MT		₹ 3,150 + ₹ 22 per MT per hour in excess of 200 MT	₹ 3,150 + ₹ 22 per MT per hour in excess of 200 MT
Parking Charges			
Up to 40 MT	₹ 4.8 per MT per hour		
Above 40 MT up to 100 MT	₹ 192 + ₹ 9.0 per MT per hour in excess of 40 MT		
Above 100 MT	₹ 732 + ₹ 11.70 per MT per hour in excess of 100 MT		
Up to 25 MT		₹ 3 per MT per hour	₹ 3 per MT per hour
Above 25 MT up to 50 MT		₹ 75 + ₹ 4 per MT per hour in excess of 25 MT	₹ 75 + ₹ 4 per MT per hour in excess of 25 MT
Above 50 MT up to 100		₹ 175 + ₹ 8 per MT per hour in excess of 50 MT	₹ 175 + ₹ 8 per MT per hour in excess of 50 MT
Above 100 MT up to 200 MT		₹ 575 + ₹ 10 per MT per hour in excess of 100 MT	₹ 575 + ₹ 10 per MT per hour in excess of 100 MT
Above 200 MT		₹ 1,575 + ₹ 11 per MT per hour in excess of 200 MT	₹ 1,575 + ₹ 11 per MT per hour in excess of 200 MT
Throughput Charges			
Rate per KL	₹ 112.1	₹ 117.7	₹ 117.7
Passenger Service Fee (PSF) – Facilitation			
Domestic Passenger (per embarking passenger)	Nil	₹ 379	Nil

Particular	Existing Tariff	Revised tariff by AAI	Revised tariff proposed by Authority
International Passenger (per embarking passenger)	Nil	₹ 499	Nil
User Development Fee (UDF) (UDF proposed by Authority instead of PSF(FC) above)			
Domestic Passenger (per embarking passenger)	₹ 332	Nil	₹ 379
International Passenger (per embarking passenger)	₹ 332	Nil	₹ 499
Passenger Service Fee (PSF) – Security*			
Domestic Passenger (per embarking passenger)	₹ 130	₹ 130	₹ 130
	\$ 3.25	\$ 3.25	\$ 3.25
International Passenger (per embarking passenger)	₹ 130	₹ 130	₹ 130
	\$ 3.25	\$ 3.25	\$ 3.25
Extension of watch hours (applicable from 01.02.2018 to 31.03.2018)			
INR per hour per aircraft	10,315	10,830	10,830

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

16.10. The Authority notes that the existing UDF charges per domestic and international passenger has been increased by 14% and 50% respectively. 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) has been reduced by 19% from existing tariffs. The exact rates are specified in the tariff card.

16.11. Additionally, from 01.04.2018, the increase in tariffs as submitted by AAI is given below. The Authority proposes to accept the increase in tariffs for the second control period as submitted by AAI.

16.11.1. Yearly increase of 4% per annum every subsequent year (FY 2018-19 onwards) in UDF per departing passenger

16.11.2. Yearly increase of 4% every subsequent year (FY 2018-19 onwards) in landing charges

16.11.3. Yearly increase of 5% every subsequent year (FY 2018-19 onwards) in fuel throughput charges

16.12. The Authority noted that AAI's proposed tariff applicable from 01.02.2018 will not be able to recover the proposed ARR for the 2nd control period. Hence, the Authority

proposes to accept the revised tariffs as submitted by AAI which would be applicable from 01.02.2018. The estimated aeronautical revenues based on tariffs as proposed by AAI is indicated in Table 47.

16.13. The Authority notes that revenue from tariff as proposed by AAI would not meet aeronautical revenue permissible for the 2nd control period. The resultant shortfall as on 01.04.2016 is ₹ 19.8 crores. The Authority proposes to consider the shortfall of ₹ 19.8 crores as on 01.04.2016 in the 2nd control period while determining tariffs for the 3rd control period.

Table 47 - Projected Revenue, Target Revenue and shortfall as per the Authority for the 2nd control period

Projected Aero Revenue based on AAI proposed tariffs (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Landing (A)	32.1	33.3	31.2	34.8	38.7
Parking and Housing (B)	0.1	0.1	0.1	0.1	0.1
UDF as per existing rates (C)	62.9	69.2	76.1	83.7	92.1
FTP+ITP and lease rentals (D)	2.1	2.3	2.6	2.8	3.1
Ground Handling Charges and lease rentals (E)	1.3	1.4	1.5	1.6	1.7
CUTE (F)	2.2	2.4	2.7	2.9	3.2
Cargo Charges (G)	0.8	0.0	0.0	0.0	0.0
Extension of service hours (H)	0.1	0.1	0.0	0.0	0.0
Total Projected Revenue (I)	101.6	108.8	114.1	125.9	139.0
Target Aero Revenue	98.8	113.2	129.7	148.7	170.4
Short fall (-)/ Excess (+) in revenue, i.e. difference (Projected – Permissible)	2.8	-4.4	-15.6	-22.8	-31.4
PV value as on 01.04.2016 with Discount rate (14.00%)	2.8	-3.9	-12.0	-15.4	-18.6
Total PV of difference as on 01.04.2016 for the control period					-47.0
UDF as per revised rates (J)	62.9	70.9	90.6	103.6	118.6
Total projected revenue as per revised UDF (J=I-C+J)	101.6	110.5	128.6	145.8	165.4
Target aero revenue	101.6	116.5	133.5	153.0	175.4
Short fall (-)/ Excess (+) in revenue, i.e. difference (Projected – Permissible)	0.0	-6.0	-4.9	-7.2	-9.9
PV value as on 01.04.2016 with	0.0	-5.3	-3.8	-4.8	-5.9

Projected Aero Revenue based on AAI proposed tariffs (₹ crore)	2016-17	2017-18	2018-19	2019-20	2020-21
Discount rate (14.00%)					
Total PV of difference as on 01.04.2016 for the control period	-19.8				

16.14. The Authority noted that AAI has taken 6% inflation rate while determining the Yield per Passenger for tariff years in the 2nd 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 proposes to revise WPI for the 2nd control period to 4.2%.

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

16.16. The Authority notes that ASQ rating at LGBIA has been marginally less than 3.75 for few quarters of 1st control period. However, the Authority further notes that in majority of the quarters in 2nd 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 3rd control period. Details of the ASQ ratings are provided below.

Table 48 – Quarterly ASQ rating of LGBIA during the 1st control period

Quarter	2012	2013	2014	2015	2016
Q1	3.58	4.10	4.22	4.28	4.44
Q2	4.18	4.11	4.26	4.41	4.37
Q3	3.51	4.11	4.32	4.41	4.39
Q4	3.99	4.03	4.27	4.43	4.39
Average	3.82	4.09	4.27	4.38	4.40

Proposal No. 12. Tariff rate card

12.a. To accept Annual Tariff Proposals as given in Table 46 (and Annexure) for the 2nd control period as the present value of proposed revenues (yield) by AAI is lower than the present value of ARR (yield) as per Authority. Detailed tariff card is provided in Annexure for stakeholder comments.

- 12.b. 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 LGBIA.
- 12.c. 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. To merge UDF and PSF (facilitation) charges and only UDF charges to be applicable on each domestic and international embarking passenger w.e.f. 01.02.2018.
- 12.e. 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.

17. Summary of Proposals

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18. Stakeholders' Consultation Timeline

18.1. In accordance with the provision of Section 13(4) of the AERA Act, 2008, the proposal contained in the Section – Summary of proposals (Section 17 above) read with the relevant discussion in the other sections of the paper is hereby put forth for Stakeholders' Consultation. To assist the Stakeholders in making their submissions in a meaningful and constructive manner, necessary documents are enclosed as **Annexure I**. For removal of doubts, it is clarified that the contents of this consultation paper may not be construed as any Order or Direction by the Authority. The Authority shall pass an order, in the matter, only after considering the submissions of the stakeholders' in response hereto and by making such decisions fully documented and explained in terms of the provisions of the Act.

18.2. The Authority welcomes written evidence based feedback, comments and suggestions from stakeholders on the proposals made in (Section 17 above), latest by **15.01.2018** at the following address.

Secretary

Airports Economic Regulatory Authority of India

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New Delhi -110003

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(S. Machendranathan)
Chairperson

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I) LANDING CHARGES

Rate per landing - International Flight

Weight of the Aircraft	Proposed - Rate Per Landing (In ₹)
Up to 25 MT	₹ 220 per MT
Above 25 MT up to 50 MT	₹ 5,500 + ₹ 330 per MT in excess of 25 MT
Above 50 MT up to 100 MT	₹ 13,750 + ₹ 370 per MT in excess of 50 MT
Above 100 MT to 200 MT	₹ 32,250 + ₹ 460 per MT in excess of 100 MT
Above 200 MT	₹ 78,250 + ₹ 490 per MT in excess of 200 MT

Rate per Landing - Domestic Flight

Weight of the Aircraft	Proposed - Rate Per Landing (In ₹)
Up to 25 MT	₹ 160 per MT
Above 25 MT up to 50 MT	₹ 4,000 + ₹ 260 per MT in excess of 25 MT
Above 50 MT up to 100 MT	₹ 10,500 + ₹ 290 per MT in excess of 50 MT
Above 100 MT to 200 MT	₹ 25,000 + ₹ 360 per MT in excess of 100 MT
Above 200 MT	₹ 61,000 + ₹ 410 per MT in excess of 200 MT

Incentives for increasing the Domestic Flight Operation:

Percentage increase in Actual Aircraft (Landing Domestic) movements per fortnight per operator from the Aircraft movement for the period 16.01.2018 to 31.01.2018	Discount offered on all the movements per fortnight per operator
10%	1%
15%	2%
20%	3%
25%	4%
30%	5%

Notes:

- The initial Aircraft movement per operator per fortnight will be taken from 16.01.2018 to 31.01.2018. The actual Aircraft movement per operator for the period 16.01.2018 to 31.01.2018 would be frozen for the period (01.02.2018 to 31.03.2018) for the purpose of calculation of discount.
- Percentage increase in Aircraft will be rounded off to the nearest whole number.
- Discount on total Landing will be offered only if the payment is made within the stipulated time

Incentives for increasing the International Flight Operation:

Percentage increase in Actual Aircraft (Landing International) movements per fortnight per operator from the Aircraft movement for the period 16.01.2018 to 31.01.2018	Discount offered on all the movements per fortnight per operator
10%	1%
15%	2%
20%	3%
25%	4%
30%	5%
<p>Notes:</p> <ul style="list-style-type: none"> The initial Aircraft movement per operator per fortnight will be taken from 16.01.2018 to 31.01.2018. The actual Aircraft movement per operator for the period 16.01.2018 to 31.01.2018 would be frozen for the period (01.02.2018 to 31.03.2018) for the purpose of calculation of discount. Percentage increase in Aircraft will be rounded off to the nearest whole number. Discount on total Landing will be offered only if the payment is made within the stipulated time 	

Note

	Proposed
1)	No Landing charges shall be payable in respect of a) aircraft with a maximum certified Capacity of less than 80 seats, being operated by domestic scheduled operators 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 charges 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	Proposed Rates (In ₹)	
	Parking Charges Rates per Hour	Housing Charges Rates per Hour
Up to 25 MT	₹ 3 per MT per hour	₹ 6 per MT per hour
Above 25 MT up to 50 MT	₹ 75 + ₹ 4 per MT per hour in excess of 25 MT	₹ 150 + ₹ 8 per MT per hour in excess of 25 MT

	Proposed Rates (In ₹)	Proposed Rates (In ₹)
Weight of the Aircraft	Parking Charges Rates per Hour	Housing Charges Rates per Hour
Above 50 MT up to 100	₹ 175 + ₹ 8 per MT per hour in excess of 50 MT	₹ 350 + ₹ 16 per MT per hour in excess of 50 MT
Above 100 MT to 200 MT	₹ 575 + ₹ 10 per MT per hour in excess of 100 MT	₹ 1,150 + ₹ 20 per MT per hour in excess of 100 MT
Above 200 MT	₹ 1,575 + ₹ 11 per MT per hour in excess of 200 MT	₹ 3,150 + ₹ 22 per MT per hour in excess of 200 MT

Note

	Proposed
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 next 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.
6)	It is proposed to waive off the night parking charges in principle for all domestic scheduled operators at Guwahati Airport if the State Government has brought the rate of tax (VAT) on ATF up to 5%. The above waiver of night parking charges (between 2200 hrs. to 0600 hrs) will be made applicable from the date of implementation of ≤ 5% tax on ATF by the State Govt. In the event of upward revision in the tax rate of ATF by the State Govt., the relief of free night parking charges will also be deemed to be withdrawn for all airports within the jurisdiction of the said State.

III) THROUGHPUT CHARGES

Proposed
Proposed Rate Per KL (IN ₹)
₹ 117.70

IV) PASSENGER SERVICE FEE (PSF) – SECURITY*

Proposed 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)	Collection charges: 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 st day of the month for 1 st fortnightly billing period and rate as on 16 th of the month for the 2 nd 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	Proposed
Domestic (per embarking passenger)	₹ 379
International (per embarking passenger)	₹ 499

Notes

	Proposed
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 1 st fortnight and rate as on 15 th of the month for tickets issued in the 2 nd fortnight shall be adopted.
4)	Revised UDF charges will be applicable on tickets issued on or after 01.02.2018 or date of issuance of the AIC, whichever is later.
5)	No UDF will be levied for Transit Passengers

VI) Extension of watch hours will be applicable from 01.02.2018 to 31.03.2018

Charges for extension of Watch Hours beyond designated watch hours irrespective of the weight of the aircraft are categorized as follows:

Proposed Rates
₹ 10,830 per Hour per Aircraft

Concessional rates per hour

Type of User	% age of normal rates	Amount (in ₹)
Helicopter	10%	1,080
Aircraft upto MTOW 10,000 Kgs	20%	2,160
Aircraft upto MTOW having MTOW more than 10,000 Kgs. but less than 20,000 Kgs.	40%	4,320
Aircraft MTOW above 20,000 Kgs & above	100%	10,830

Notes

	Proposed
1)	The charges are payable by all operators/agencies operating outside the watch hours, except aircraft(s) belonging to any armed force of the Union, including BSF & NCC.
2)	The charges are payable at the Airports where extension is availed at the time of landing / taking off as the case may be.
3)	When the two aircraft use the facility at the same time, Charges for Extension of Watch Hours for each Airline/aircraft should be charged separately and no sharing of charges between the Users is permissible.
4)	Fraction of hours may be rounded off to the next half an hour and charged accordingly.
5)	If the aircraft has taken off just before the closing of watch hours, watch hours should be extended at least for a period of 30 minutes after take off as is the normal practice, this will not attract extra service charge. If the aircraft returns to land due to any technical reason, extended period beyond the normal watch hour, if any, should not be charged. However, any extension required after such landing should be charged as per rates applicable.
6)	Any extension of Watch Hours provided to accommodate an aircraft experiencing technical problem and requesting emergency landing should not be charged. Any extension required after such landing should be charged as per rates applicable.

7)	No charges will be levied for extension of Watch hours due to inescapable delays because of runway block/VVIP Movements/weather conditions at the station.
8)	If an Operator, after obtaining approval of AAI for extension of Watch hours, subsequently intends to withdraw the request under any circumstances, shall inform AAI at least 6 hours in advance of the scheduled departure or arrival time. If the Operator fails to do so, he shall be charged Charges for Extension of Watch Hours for a period of 4 hours as penalty.
9)	The charges for Extension of Watch Hours shall be levied as per revised rates per hour basis for a minimum period of one hour.
10)	The Charges indicated above are only for the services rendered by AAI.
11)	The Charges for Extension of Watch Hours are applicable to the airports which are having designated watch hours.
12)	In case when ILS is not operational, rates for non ILS station is to be charged.
13)	All the above charges are subject to levy of GST as per the applicable rates.

VII) Exemption from levy and collection from UDF and 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 UDF & 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.

VIII) 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 of GST. GST at the applicable rates are payable in addition to above charges.

Annexure 2 – Details of Aeronautical Revenues

S. No.	Particulars	2017	2018*	2019	2020	2021
Traffic Assumptions						
1	Domestic ATMs	37,383	40,031	42,866	45,903	49,154
2	International ATMs	490	534	582	635	692
3	Total ATMs	37,873	40,565	43,449	46,537	49,846
4	Domestic Passengers	3,759,494	4,135,443	4,548,988	5,003,887	5,504,275
5	International Passengers	30,162	33,178	36,496	40,146	44,160
6	Total Passengers	3,789,656	4,168,622	4,585,484	5,044,032	5,548,435
7	Fuel throughout (kL)	100,006	107,114	114,729	122,885	131,621
Aeronautical Revenues						
	Landing Charges					
8	Average landing charges per departing domestic ATM (₹)	16831	13633	14178	14746	15335
9	<i>Growth in average landing charges per departing domestic ATM (₹)</i>		-19%	4%	4%	4%
10	Landing Charges - Domestic ATM (₹ cr.)	31.5	32.6	30.4	33.8	37.7
11	Average landing charges per departing international ATM (₹)	25402	26672	27739	28849	30003
12	<i>Growth in average landing charges per departing International ATM (₹)</i>		5%	4%	4%	4%
13	Landing Charges - International ATM (₹ cr.)	0.6	0.7	0.8	0.9	1.0
14	Total Landing Charges (Dom + Int)	32.1	33.3	31.2	34.8	38.7
	Parking and Housing Charges:					
15	Parking and Housing Average Revenue per departing ATM (Dom + Int) (₹)	35	32	32	32	32
16	<i>Growth in Parking and Housing charges per departing ATM (Dom + Int)</i>		-10%	0%	0%	0%
17	Total Parking and Housing Charges (Dom + Int)	0.1	0.1	0.1	0.1	0.1
	User Development Fee (UDF)					
18	Domestic UDF per departing passenger (₹)	332	379	394	410	426

S. No.	Particulars	2017	2018*	2019	2020	2021
19	<i>Growth in Domestic UDF per departing passenger (%)</i>		14%	4%	4%	4%
20	Revenues from Domestic UDF (₹ cr.)	62.4	70.3	89.7	102.6	117.3
21	International UDF per departing passenger (₹)	332	499	519	540	561
22	<i>Growth in International UDF per departing passenger (%)</i>		50%	4%	4%	4%
23	Revenues from International UDF (₹ cr.)	0.5	0.6	0.9	1.1	1.2
24	Total UDF (₹ cr.)	62.9	70.9	90.6	103.6	118.6
	Fuel Throughput Charges (FTC)					
25	FTC (₹ per kL)	112.1	117.7	123.6	129.8	136.3
26	Revenues from FTC (₹ cr.)	1.1	1.2	1.4	1.6	1.8
27	Ground Handling Charges (₹ cr.)	1.3	1.4	1.5	1.6	1.7
28	<i>Growth in ground handling charges as per increase in ATMs (%)</i>		7.1%	7.1%	7.1%	7.1%
29	Cute services (₹ cr.)	2.2	2.4	2.7	2.9	3.2
30	<i>Growth in CUTE charges as per increase in passengers (%)</i>		10.0%	10.0%	10.0%	10.0%
31	Land lease from ground handling agencies (₹ cr.)	0.0	0.0	0.0	0.0	0.0
32	<i>Growth as per contracts (%)</i>		7.5%	7.5%	7.5%	7.5%
33	Land lease from oil companies (₹ cr.)	1.0	1.1	1.2	1.2	1.3
34	<i>Growth as per contracts (%)</i>		7.5%	7.5%	7.5%	7.5%
35	Cargo revenues	0.8	0.0	0.0	0.0	0.0
36	Extension of watch hours (₹ cr.)	0.1	0.1	0.0	0.0	0.0
37	<i>Growth as per increase in ATMs</i>		7.1%	-100.0%		
38	Total aeronautical revenues (₹ cr.)	101.6	110.5	128.6	145.8	165.4

* For FY 2017-18, existing tariffs are applicable till 31.01.2018 and revised tariffs are applicable from 01.02.2018 onwards.