

**STUDY**

**ON**

**EFFICIENT OPERATION AND  
MAINTENANCE EXPENSES**

for

**Lokpriya Gopinath Bordoloi International Airport,  
Guwahati (LGBIA)**

**(Second Control Period: FY 2016-17 – FY 2020-21  
& FY 2021-22)**

**Initiated by Airports Economic Regulatory Authority of India (AERA)**

**April 2024**

# Table of Contents

<b>1. OBJECTIVE OF THIS STUDY</b> .....	<b>6</b>
1.1 Background .....	6
1.2 Purpose of the Study.....	6
1.3 Control Period .....	7
1.4 Study References.....	7
<b>2. TERMS OF REFERENCE AND OUR WORK PERFORMED</b> .....	<b>8</b>
2.1 Terms of Reference .....	8
2.2 Scope of this report.....	8
<b>3. OPERATION AND MAINTENANCE EXPENSES FOR THE SECOND CONTROL PERIOD and FY2021-22</b> .....	<b>11</b>
3.1 O&M expenses and allocation as submitted by AAI for the period from FY 2016-17 till Pre-COD..	11
3.2 O&M Expenses and allocation as submitted by GIAL .....	11
3.3 Analysis of AAI and GIAL submission of O&M expenses as per Study .....	12
3.4 Comparison of Approved O&M expenses as per Tariff Order vs Actual incurred expenses .....	12
3.5 Summary .....	19
<b>4. ALLOCATION OF O&amp;M EXPENSES BETWEEN AERONAUTICAL AND NON-AERONAUTICAL ACTIVITIES (FY 2016-17 TILL COD)</b> .....	<b>20</b>
4.1 Segregation of O&M expenses.....	20
4.2 Terms of the Concession Agreement pertaining to O&M expenses .....	20
4.3 Allocation of O&M expenses as per AAI’s submission .....	22
4.4 Assessment of allocation ratios for Common expenses .....	24
4.5 Allocation of O&M expenses as per Study .....	28
4.6 Reallocation and Adjustment of O&M expenses of AAI as per Study .....	30
4.7 Impact of reallocation as per Study .....	39
4.8 Summary .....	40
<b>5. ALLOCATION OF OPERATION AND MAINTENANCE EXPENSES FROM POST-COD TILL MARCH 31, 2022</b> .....	<b>41</b>
5.1 Allocation of O&M expenses as per GIAL.....	41
5.2 Assessment of allocation ratios for Common expenses .....	42
5.3 Allocation of O&M expenses as per Study .....	45
5.4 Reallocation and Adjustment of Common O&M expenses of GIAL as per Study.....	46
5.5 Impact of Reallocation as per Study.....	52
5.6 Summary .....	52
<b>6. INTERNAL BENCHMARKING</b> .....	<b>53</b>
6.1 Background .....	53
6.2 Trend analysis of Major Aeronautical O&M expenses as per Study .....	53
6.3 Inflation-adjusted analysis of Major O&M expenses as per Study .....	55
6.4 Proportion of Domestic and International Passenger Traffic .....	56

6.5	Summary of Internal Benchmarking .....	57
<b>7.</b>	<b>EXTERNAL BENCHMARKING .....</b>	<b>59</b>
7.1	Background .....	59
7.2	Analysis of Major Aeronautical O&M expenses .....	59
7.3	Summary of External Benchmarking .....	61
<b>8.</b>	<b>OVERALL SUMMARY OF THE STUDY .....</b>	<b>62</b>
8.1	Study Period, Operator and Trends .....	62
8.2	Assessment of Reasonableness of O&M expenses (Tariff Order Projections vs Actuals) .....	62
8.3	Segregation of costs.....	62
8.4	Internal and External Benchmarking.....	63
8.5	Conclusion.....	63
<b>9.</b>	<b>GLOSSARY .....</b>	<b>65</b>

# List of Tables

Table 1: Aeronautical O&M expenses approved by the Authority for Second Control Period .....	11
Table 2: Aeronautical O&M expenses submitted by AAI for period FY 2016-17 up to COD .....	11
Table 3: Aeronautical O&M expenses as per GIAL True up and their segregation.....	11
Table 4: O&M expenses of AAI for the Second Control Period - Approved vs. Actuals.....	12
Table 5: Comparison of Actuals vs Approved Employee benefit expenses.....	13
Table 6: Analysis of employee expenses of AAI .....	15
Table 7: Comparison of Actuals vs Approved Administrative & Other Expenses .....	15
Table 8: Comparison of Actuals vs Approved CHQ / RHQ expenses .....	16
Table 9: Comparison of Actuals vs Approved Utilities expenses .....	16
Table 10: Comparison of Actuals vs Approved Electricity expenses .....	17
Table 11: Comparison of Actuals vs Approved Repairs & Maintenance expenses .....	18
Table 12: Comparison of Actuals vs Approved Other Outflows.....	18
Table 13: Allocation of O&M expenses as per AAI's submission.....	22
Table 14: Allocation ratios of Common O&M expenses as per AAI's submission.....	23
Table 15: Terminal Building Ratio submitted by AAI.....	24
Table 16: Gross Fixed Assets ratio for AAI as identified in the Asset Allocation Study.....	24
Table 17: Employee details and Employee Ratio submitted by AAI.....	25
Table 18: Common Employee Share submitted by AAI.....	26
Table 19: Employee Ratio proposed by the Study for the period FY 2016-17 till COD .....	26
Table 20: Electricity ratio as per AAI's submission.....	27
Table 21: Quarter ratio as per AAI's submission .....	28
Table 22: Vehicle ratio as per AAI's submission.....	28
Table 23: Allocation of O&M expenses as per Study .....	28
Table 24: Impact on Retirement Benefits as per Study .....	30
Table 25: Impact on Payroll Costs as per Study.....	30
Table 26: Impact on Travelling and Conveyance Expense as per Study.....	31
Table 27: Impact on Legal and Professional Consultancy/Advisory Fee as per Study.....	32
Table 28: Impact on Watch and Ward Expenses as per Study .....	32
Table 29: Impact on CHQ/RHQ Overhead Expenses as per Study.....	34
Table 30: Impact on CSR Expenses as per Study.....	34
Table 31: Impact on A&G Expenses as per Study .....	35
Table 32: Impact on Consumption of Stores & Spares Expenses as per Study.....	37
Table 33: Impact on Utilities Expenses as per Study .....	37
Table 34: Impact on Equipment and Furniture Expenses as per Study .....	38
Table 35: Impact on R&M Expenses as per Study.....	38
Table 36: Impact of proposed reallocation of AAI's Aeronautical O&M expenses as per Study.....	39
Table 37: O&M expenses after reclassification, change in allocation ratio and rationalization for AAI.....	39
Table 38: Allocation of O&M expenses as per GIAL submission .....	41
Table 39: Employee details submitted by Guwahati International Airport Limited .....	42
Table 40: Employee Ratio of the Airport Operator as per Study .....	43
Table 41: Allocation of O&M expenses of GIAL as per Study .....	45
Table 42: Impact of revision in Aeronautical Manpower expenses of GIAL.....	47
Table 43: Impact of revision in Corporate Allocation Cost of GIAL.....	48
Table 44: Impact of revision in Aeronautical Administrative expenses of GIAL.....	49
Table 45: Impact of revision in Aeronautical R&M expenses of GIAL .....	50
Table 46: Impact of revision in Other Operating Expenses of GIAL.....	51
Table 47: Impact of proposed reallocation of GIAL Aeronautical O&M expenses.....	52
Table 48: CAGR of Passenger Traffic, ATM and O&M expenses of LGBIA .....	53
Table 49: Analysis of WPI Inflation-adjusted O&M expenses of LGBIA.....	56
Table 50: Pax Profile and per Pax Utility Expenses of LGBIA .....	57
Table 51: Parameters for Peer Group Benchmarking.....	59
Table 52: Comparison of Major O&M Expenses among peer Airports.....	60
Table 53: Year-wise summary of reclassification and other adjustments to Aero O&M expenses .....	63

# List of Figures

Figure 1: Approach for this Study .....	8
Figure 2: Analysis of Employee expenses.....	14
Figure 3: Analysis of Administrative & Other expenses.....	15
Figure 4: Analysis of Utility expenses .....	17
Figure 5: Analysis of Repairs & Maintenance .....	18
Figure 6: CAGR of Major O&M expenses for the periods (FY12-16 & FY17-20).....	54
Figure 7: Analysis of Major O&M expenses per ATM (FY12 - FY20).....	54
Figure 8: Analysis of Major O&M expenses per PAX (FY12 - FY20) .....	55
Figure 9: Traffic Mix at LGBIA.....	57

# 1. OBJECTIVE OF THIS STUDY

## 1.1 Background

Guwahati International Airport aka Lokpriya Gopinath Bordoloi International Airport (LGBIA) is the gateway to the entire North-east region of India. The airport located in the economic capital of Assam state is the 2<sup>nd</sup> largest hub for the North-east region next only to Kolkata. Given its rich culture, history and heritage, Guwahati is also a major tourism centre. The airport currently has one (01) Passenger Terminal Building in operation and a new second passenger terminal is under construction. LGBIA has a single runway that is 3,103 meter long. LGBIA handled 5.05 million passengers in FY'23<sup>1</sup>.

LGBIA is classified as a Major Airport, as per section 2 (i) of the Airports Economic Regulatory Authority of India Act, 2008, read with AERA (Amendment) Act 2019 and 2021. Pursuant to AERA Act 2008, the Authority had issued Guidelines for the purpose of determination of Aeronautical tariff for the Major Airports. As per the Guidelines, AERA had issued Tariff Order No. 38/2017-18 dated February 16, 2018, in the matter of determination of Aeronautical tariff for GIAL for the Second Control Period i.e., 1<sup>st</sup> April'2016 to 31<sup>st</sup> Mar'2021.

Pursuant to the AERA Act, 2008 read with AERA (Amendment) Act 2019 and 2021 and AERA Guidelines for the purpose of determination of Aeronautical tariff for Major Airports, Guwahati International Airport Limited (the 'Airport Operator'/ 'GIAL') has submitted its Multi Year Tariff Proposal (MYTP) for the Third Control Period from FY 2022-23 to FY 2026-27.

In accordance with AERA's Order No. 14/2016-17, dated January 12, 2017, the Authority has adopted Hybrid till approach for determination of tariff for GIAL. As per the Hybrid till approach, 30% of the Non-aeronautical revenues are to be used to cross-subsidise the Aeronautical revenues, i.e., the Aggregate Revenue Requirement (ARR). Tariff for Aeronautical services under the Hybrid till are based on the various building blocks, i.e., Regulatory Asset Base (RAB), Depreciation, Operation and Maintenance expenses, Tax and Non-aeronautical Revenue.

## 1.2 Purpose of the Study

Establishing efficient Operation and Maintenance (O&M) expenses is fundamental to the effective execution of determination of tariff for Aeronautical services. The O&M expenses of Airports across the Country have been increasing consistently, driven by investments in expanding, modernising, and improving the operational efficiency of airports. In addition, there is increased adoption of latest technology for improving the efficiency of operations and services at the airports, which has resulted in various technology related products and services being utilised at the airports through both in-house and third-party involvement.

Assessment of O&M expenses requires examination of financial information submitted by GIAL and independent assessment of baseline operating expense levels, expense reduction, efficiency initiatives and conduct of benchmarking exercise.

The objective of the study is to understand and analyse the historical trends of change in O&M expenses and how LGBIA has been performing in comparison to select peers in the industry, which in turn is expected to help understand the reasons for current expenses being higher or lower than

---

<sup>1</sup> AAI.aero [https://www.aai.aero/sites/default/files/traffic-news/rev\\_Mar2k23Annex3.pdf](https://www.aai.aero/sites/default/files/traffic-news/rev_Mar2k23Annex3.pdf)

the efficient expense levels. The outcome of the same would assist the Authority in determining the efficient O&M expenses of LGBIA.

The study also aims to assess the allocation of O&M expenses as Aeronautical, Non-aeronautical and Common expenses, as per the general principles followed by AERA, so that the passengers and other stakeholders are not over-burdened with resultant fees / charges.

Towards this objective, AERA has decided to conduct an independent study on efficient Operation and Maintenance (O&M) expenses and their allocation as Aeronautical and Non-aeronautical components in respect of O&M expenses appearing in the extract of the audited trial balance of AAI for the period from FY 2016-17 up to October 7, 2021, and the audited financial statements of Guwahati International Airport Limited for the period from October 8, 2021 (Commercial Operation Date (COD)) to March 31, 2022, and the True up workings as submitted to AERA by AAI for the SCP up to October 7, 2021, and by GIAL up to March 31, 2022. AERA proposes to use the findings of this Study for the process of determination of Tariff for the Third Control Period.

### **1.3 Control Period**

It is to be noted that as per Order No. 38/2017-18 the Second Control Period starts from 1st April, 2016 and ends on 31st March, 2021. AERA considering the transition phase had vide Public Notice No. 05/2022-23 dated 20th June, 2022, decided to shift the third control period of LGBIA from 1<sup>st</sup> April, 2021 – 31<sup>st</sup> March, 2026 to 1<sup>st</sup> April, 2022 – 31<sup>st</sup> March, 2027. For the purpose of this O&M study, the true up period considered second control period from FY'16 till COD i.e., 01st April, 2016 to 7th October, 2021 and also post COD period i.e., 8th October, 2021 to 31st March, 2022.

### **1.4 Study References**

As part of this Study, following documents have been examined:

- AERA Act, 2008 read with AERA (Amendment) Act, 2019 and 2021 (“AERA Act”) and AERA Guidelines issued from time to time.
- Finalization of RAB & True up as on Commercial Operation Date (COD) in respect of LGBIA, submitted by AAI to AERA on 6<sup>th</sup> July 2023
- Concession Agreement dated January 19, 2021, entered between AAI and Guwahati International Airport Limited, and the Memorandum of Understanding dated August 25, 2021, entered between the Government of India and Guwahati International Airport Limited.
- AERA Order No. 14/2016-17 dated January 12, 2017 [In the matter of aligning certain aspects of AERA’s Regulatory Approach (Adoption of Regulatory Till) with the provisions of the National Civil Aviation Policy 2016 (NCAP 2016)], approved by the Government of India
- AERA Tariff Order No. 38/2017-18 dated February 16, 2018, for Second Control Period with respect to LGBIA and previous tariff orders for other similar airports.
- True up submissions of AAI and Guwahati International Airport Limited.
- Annual Reports, clarifications and other details received from AAI and Guwahati International Airport Limited.

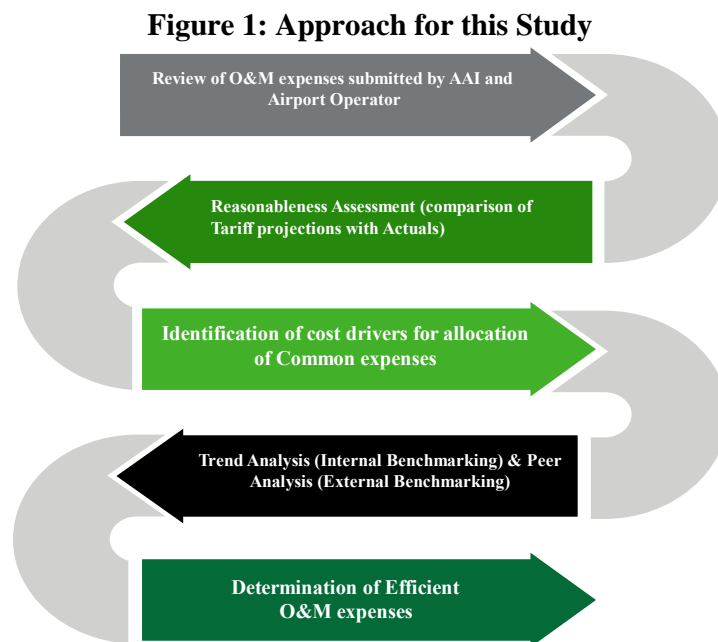
## 2. TERMS OF REFERENCE AND OUR WORK PERFORMED

### 2.1 Terms of Reference

2.1.1 AERA has outlined the scope of work for this Study to include segregation of O&M expenses between Aeronautical, Non-aeronautical, Common and determination of efficient O&M expenses, vide clauses 3.1 (d) and 3.1 (f) of Terms of Reference in RFP No. 01 / 2022-2023 dated 30.08.2022 for engagement of consultants to assist AERA in determination of tariff for Aeronautical services at various major airports.

### 2.2 Scope of this report

2.2.1 The following steps have been followed as part of this Study for determining the efficient O&M expenses for LGBIA.



#### Step 1: Review of O&M expenses submitted by AAI and GIAL

The following components of O&M expenses submitted by AAI and GIAL for the period from FY 2016-17 to FY 2021-22 have been analysed as part of the Study report.

##### Components of O&M expenses as per AAI's submission

- **Employee benefit expenses** such as salaries, wages, bonus, allowances, contribution to provident fund, staff welfare expenses
- **Administrative and Other expenses** such as upkeep expenses, rates and taxes, travel, communication, insurance, allocation of CHQ & RHQ expenses
- **Utility (Operating) expenses** such as power, water, consumption of stores & spares, and other hire charges
- **Repair & Maintenance expenses** for buildings, machinery, runways, amortisation of runway recarpeting expenses
- **Other expenses** such as collection charges on PSF, IATA, and UDF.

##### Components of O&M expenses as per GIAL submission

- **Manpower expenses** such as salaries, wages, bonus, contribution to provident fund, staff welfare expenses, etc. for employees of GIAL as well as Select Employee cost of AAI staff to be reimbursed to AAI



- **Utility expenses** such as electricity, water and fuel
- **IT expenses** such as system licence costs, IT consumables, operating cost of server and website
- **Security expenses** such as X-ray, surveillance vehicles etc
- **Corporate cost allocation** such as allocation of common costs incurred at holding company level.
- **Administration and general expenses** such as business promotion, communication expenses, consultancy, office maintenance, rent, traveling and conveyance
- **Insurance expenses** for project assets, personnel and third-party liability
- **Repairs and maintenance expenses** for buildings, plant and machinery, roads, runways, culverts, equipment, etc.
- **Other operating expenses** such as housekeeping and horticulture expenses.
- **Bank charges** incurred for the Company's operations

## **Step 2: Reasonableness assessment (Comparison of Tariff Projections vs. Actuals)**

Reasonableness Assessment of the total O&M Expenses for the Second Control Period (FY 2016-17 to FY 2020-21) has been performed by comparing the approved O&M expenses as per the Tariff Order for the Second Control Period with the actual expenses incurred for the same period. The actual expenses of both AAI and GIAL have been consolidated and considered in the last Financial Year, i.e., FY 2021-22 for such comparison.

## **Step 3: Identification of cost drivers for allocation of Common expenses**

The basis used by AAI and GIAL for segregation of Common expenses between Aeronautical and Non-aeronautical expenses has been analysed and wherever necessary, an alternate basis of allocation has been proposed, based on principles laid down as under:

- Common expenses pertaining to terminal operations have been segregated between Aeronautical and Non-Aeronautical expenses based on the Terminal Building ratio.
- Common employee related expenses have been segregated between Aeronautical and Non-Aeronautical expenses based on the Employee Head Count ratio.
- Common expenses included in O&M components, such as Repairs & Maintenance expenses, Administrative and other expenses, have been segregated between Aeronautical and Non-Aeronautical expenses based on suitable ratio such as Gross Fixed Assets (GFA) ratio.

## **Step 4: Part I - Trend analysis (Internal Benchmarking)**

Trend analysis of O&M expenses for the period from FY 2011-12 to FY 2019-20 (First Control Period and four pre-COVID years of Second Control Period) have been performed by correlating each component of O&M expenses with the data on Passenger (PAX) traffic and air traffic movement (ATM) for the respective years. FY 2020-21 and FY 2021-22 were excluded from the trend analysis since it was exceptional years impacted by the COVID-19 pandemic and witnessed a change in management of the Airport from AAI to the Airport Operator.

Based on the trend analysis, the CAGR of O&M expenses vis-à-vis growth in Passenger traffic and ATM for each year has been correlated and in-depth analysis has been performed in respect of growth in O&M expenses that are disproportionate to the growth in Passenger traffic and ATM.

#### **Step 4: Part II - Peer analysis (External Benchmarking)**

The benchmarking of O&M expenses with comparable airports has been done to ascertain the reasonableness of the O&M expenses of LGBIA. Based on parameters such as passenger traffic, terminal building area, regulatory asset base (RAB), and total revenues; the major O&M expenses of LGBIA have been compared with the expenses of other similar airports including SVPIA (Ahmedabad Airport), CCSIA (Lucknow Airport), Pune International Airport (Pune Airport), and Cochin International Airport (Cochin Airport).

The benchmarking exercise has been performed only in respect of major Aeronautical O&M expenses incurred during the period from FY 2016-17 to FY 2019-20. The periods FY 2020-21 and FY 2021-22 have been excluded from this analysis since the airport operations and traffic were adversely impacted by COVID-19 pandemic and the change of LGBIA's management from AAI to GIAL affected trends in O&M expenses for these financial years.

### 3. OPERATION AND MAINTENANCE EXPENSES FOR THE SECOND CONTROL PERIOD and FY2021-22

#### 3.1 O&M expenses and allocation as submitted by AAI for the period from FY 2016-17 till Pre-COD

The O&M expenses approved by the Authority as per the Tariff Order for the Second Control Period have been compared with the true up submission made by AAI (pre-COD) and GIAL (Post-COD till March 31, 2022) and analysed in terms of reasonableness as shown in the following paragraphs.

3.1.1 In the Tariff Order of the Second Control Period vide Order No.38/2017-18 issued on February 16, 2018, the Authority had approved O&M expenses of ₹ 363.80 Crores, based on the analysis of the submissions made by AAI, as shown in the table below:

**Table 1: Aeronautical O&M expenses approved by the Authority for Second Control Period**  
(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Employee benefit expenses	21.0	28.6	35.2	36.9	38.8	<b>160.5</b>
Administrative & Other expenses	15.7	16.4	18.2	19.3	20.5	<b>90.1</b>
Repairs & Maintenance expenses	6.0	19.0	20.5	21.3	22.2	<b>89.0</b>
Utility and Outsourcing expenses	3.8	3.9	4.7	4.8	4.8	<b>22.0</b>
Other outflows	0.3	0.4	0.4	0.4	0.5	<b>2.0</b>
<b>TOTAL</b>	<b>46.9</b>	<b>68.3</b>	<b>79.0</b>	<b>82.8</b>	<b>86.8</b>	<b>363.8</b>

3.1.2 The Aeronautical O&M expenses as per AAI's True up submission are provided in the table below:

**Table 2: Aeronautical O&M expenses submitted by AAI for period FY 2016-17 up to COD**  
(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total up to FY21	FY 2021-22*	Total for SCP
Employee benefit expenses	16.64	24.02	32.05	32.41	26.70	<b>131.82</b>	14.80	<b>146.62</b>
Administrative and other expenses	13.95	35.44	42.92	59.69	49.82	<b>201.82</b>	48.43	<b>250.25</b>
Repairs & Maintenance expenses	7.72	15.56	12.90	13.97	12.26	<b>62.42</b>	7.57	<b>69.98</b>
Utilities and Outsourcing expenses	4.46	5.03	6.05	6.16	5.12	<b>26.81</b>	3.00	<b>29.81</b>
Other Outflows	0.73	0.91	0.78	0.94	0.09	<b>3.44</b>	0.08	<b>3.53</b>
<b>Total</b>	<b>43.50</b>	<b>80.96</b>	<b>94.70</b>	<b>113.17</b>	<b>93.98</b>	<b>426.31</b>	<b>73.89</b>	<b>500.19</b>

\*Up to COD (Date- 08<sup>th</sup> October 2021)

#### 3.2 O&M Expenses and allocation as submitted by GIAL

3.2.1 The O&M expenses as per GIAL's True up submission for the period from post- COD till March 31, 2022, and their segregation, has been summarised in the table below:

**Table 3: Aeronautical O&M expenses as per GIAL True up and their segregation**  
(₹ in Crores)

Particulars	Grouping for analysis	Total*
Manpower expenses – AAI employees	Employee expenses	14.19
Manpower expenses – GIAL employees	Employee expenses	4.72
Utility expenses	Utility expenses	2.62

Particulars	Grouping for analysis	Total*
IT expenses	Administrative and other expenses	1.49
Rates and Taxes	Administrative and other expenses	0.32
Security expenses	Administrative and other expenses	1.37
Corporate Cost Allocation	Administrative and other expenses	3.47
Administrative Expenses Collection charges on UDF	Other Outflows	0.09
Administrative Expenses-Others	Administrative and other expenses	4.37
Insurance expenses	Administrative and other expenses	0.99
Repairs & Maintenance expenses	Repairs and maintenance expenses	9.71
Other expenses	Administrative and other expenses	2.83
Independent Engineer Fees	Repairs and maintenance expenses	1.69
<b>Total</b>		<b>47.87</b>

\* Values have been reconciled with audited financials

From COD (Date- 08<sup>th</sup> October 2021) till March 31, 2022

### 3.3 Analysis of AAI and GIAL submission of O&M expenses as per Study

3.3.1 The total expenses submitted by AAI have been verified with the extract of the audited trial balance of AAI and were observed to be in order.

3.3.2 The following expense heads, appearing in the audited financial statements of GIAL have not been considered as part of O&M expenses for the purposes of the Study:

- Depreciation and Amortization expenses, as these are considered as a separate building block.
- Finance charges (other than bank charges), as these are factored in the computation of Fair Rate of Return (FRoR).
- Concession fees, as in terms of clause 27.1.2 of the Concession Agreement, Concession Fee is not eligible for pass through in tariff.

### 3.4 Comparison of Approved O&M expenses as per Tariff Order vs Actual incurred expenses

3.4.1 The Comparison of Aeronautical O&M expenses as per approved tariff order of Second Control Period (SCP) with actual expenses incurred by AAI and GIAL are shown in the table below:

**Table 4: O&M expenses of AAI for the Second Control Period - Approved vs. Actuals**

(₹ in Crores)

Particulars	O&M Expenses as per Tariff Order for SCP (A)	Actuals as per true-up submission of AAI up to FY 21 (B)	Variance (D = B-A)	Variance (%) (E = D / A)	Total Actuals as per true-up submission of AAI till COD*	Actuals as per true-up submission of GIAL post COD till Mar'22	Total Actuals as per true-up submission of AAI and GIAL for SCP till Mar '22
Employee benefit expenses	160.5	131.82	-28.68	<b>-18%</b>	146.62	18.91	<b>165.53</b>
Administrative & Other expenses	90.1	201.82	111.72	<b>124%</b>	250.25	16.53	<b>266.78</b>
Repairs & Maintenance expenses	89.0	62.42	-26.58	<b>-30%</b>	69.98	9.71	<b>79.69</b>

Particulars	O&M Expenses as per Tariff Order for SCP (A)	Actuals as per true-up submission of AAI up to FY 21 (B)	Variance (D = B-A)	Variance (%) (E = D / A)	Total Actuals as per true-up submission of AAI till COD*	Actuals as per true-up submission of GIAL post COD till Mar'22	Total Actuals as per true-up submission of AAI and GIAL for SCP till Mar '22
Utility (Operating) expenses	22.0	26.81	4.81	22%	29.81	2.62	32.44
Other outflows	2.0	3.44	1.44	72%	3.52	0.09	3.62
<b>Total Aeronautical O&amp;M expense for Second Control Period</b>	<b>363.8</b>	<b>426.31</b>	<b>62.71</b>	<b>17%</b>	<b>500.19</b>	<b>47.87</b>	<b>548.06</b>

\*Up to COD (Date- 08<sup>th</sup> October 2021)

- 3.4.2 To have a reasoned comparison of actuals vs approved expenses as per Tariff Order, expenses for FY22 were not included to compute variance. The above table also includes the actual expenses for FY 2021-22 incurred by both AAI and GIAL. The expenses of GIAL have been regrouped, wherever required, for OPEX analysis in the transition year.
- 3.4.3 Further, it is observed that the actual total expenses incurred by AAI in Second Control Period up to FY21 were 17% higher than the amount approved as per Tariff Order.
- 3.4.4 The reasons for the deviations in major O&M expenses have been analysed in the following paragraphs.

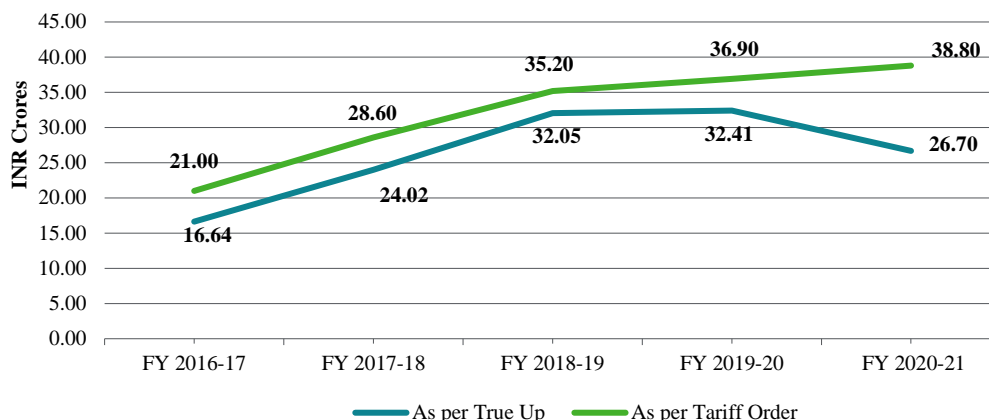
#### **A) Employee Benefit Expenses**

**Table 5: Comparison of Actuals vs Approved Employee benefit expenses**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
As per Tariff Order for SCP	21.00	28.60	35.20	36.90	38.80	<b>160.50</b>
As per True up submission of AAI	16.64	24.02	32.05	32.41	26.70	<b>131.82</b>

**Figure 2: Analysis of Employee expenses**



3.4.5 From the above table and figure, it can be observed that the total Employee benefit expenses of ₹ 131.82 Crores incurred by AAI is lower than the approved amount of ₹ 160.5 Crores as per the Tariff order for the Second Control period.

It is noted from the Tariff Order of Second Control Period that an increase of 36.19% in Employee expenses were allowed for FY 2017-18 and 23% for FY 2018-19, towards pay revision followed by Y-o-Y increase of 7% for the next two years i.e., FY 2019-20 and FY 2020-21.

3.4.6 On further examination regarding Employee expenses, it is observed that:

- i. For FY 2017-18 - there was an increase of 44% as against 36.19% approved in the tariff order of Second Control Period.
- ii. Similarly, for FY 2018-19 – there was an increase of 33% as against 23% Y-o-Y approved in the tariff order of Second Control Period, which are mainly on account of the pay revision with arrears pay-out.
- iii. For FY 2019-20 – the employee expenses stabilised and during FY 2020-21 – the employee expenses had decreased from the previous year since there was no arrears pay-out, leading to a decrease in the total employee cost. Hence the employee expenses for the period from FY 2016-17 to FY 2019-20 are considered as reasonable.
- iv. For FY 2021-22, the employee expenses include ₹ 14.80 Crores incurred by AAI pre- COD and ₹18.91 Crores by GIAL post-COD totalling to ₹ 33.71 Crores, resulting in an increase of 26% over the previous year’s expense and is higher than the 7% Y-o-Y increase allowed by the Authority in Second Control Period.
- v. It is observed that in accordance with the terms of the Agreement, GIAL has to takeover AAI employees i.e., Select Employees for the Joint Management Period and Deemed Deputation Period for handling various functions at the airport. The total manpower expense of ₹ 18.91 Crore comprises of ₹ 14.19 Crore towards AAI employee cost and ₹ 4.72 Crore towards GIAL employee cost. In view of the Concession Agreement the manpower expenses have been considered however these have been allocated based on respective employee ratio of AAI and GIAL employees. (Refer Chapter 5).

3.4.7 The employee expenses have been further analysed with respect to two parameters viz, number of passengers per employee and average salary per employee for the five FYs, i.e., FY 2016-17 to FY 2020-21. FY 2021-22 has been excluded for such comparison since there was change in the management of LGBIA from AAI to GIAL during the year.

3.4.8 Based on global benchmarks, the level of staffing for an airport is generally considered to be optimum when the number of passengers per employee is around 15000-17000<sup>2</sup>. The details for AAI are shown below:

**Table 6: Analysis of employee expenses of AAI**

Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Employee expenses – as per actuals (A)	₹ in Crores	16.64	24.02	32.05	32.41	26.70	<b>131.82</b>
Number of aeronautical employees (Aeronautical) (B)	Nos.	146	153	170	155	149	
Average salary per employee (C = A / B)	₹ in Crores	0.13	0.18	0.19	0.20	0.17	
Number of Pax (D)	Million	3.78	4.75	5.47	5.03	1.85	<b>20.88</b>
Number of passengers per employee (E = D/B)	In '000	25.96	30.52	33.76	35.23	14.70	

3.4.9 From the above table, it is evident that the average salary per employee shows an increasing trend. There has been significant increase in employee expenses in FY 2017-18 and FY 2018-19 on account of revision in pay. Additionally, it is noted from above table that there is on an average, one employee per 30,000-35,000 passengers in case of LGBIA, vis-à-vis international benchmark of 15,000-17,000 passengers per employee. Since LGBIA staff utilization is better than international benchmarks, the same has been considered in this Study.

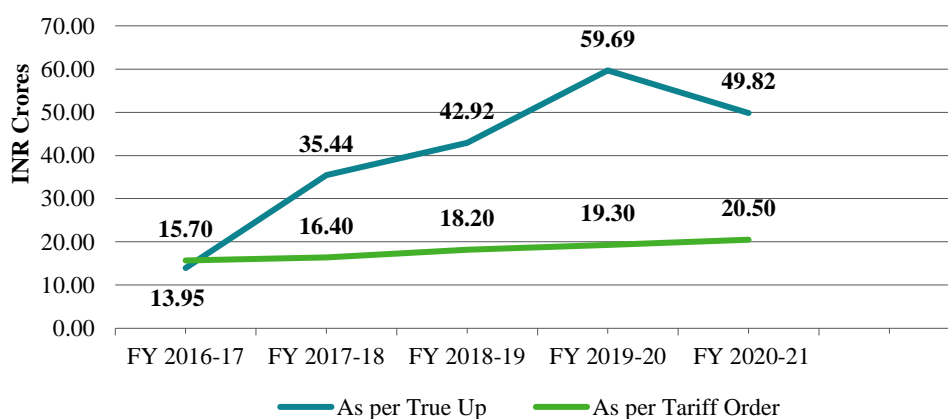
3.4.10 On an overall basis, the actual employee benefit expenses for second control period are well within the range of values approved by AERA in the Tariff Order for the Second Control Period. Therefore, the employee expenses of AAI and GIAL or the Second Control Period are considered as reasonable.

## B) Administrative and Other Expenses

**Table 7: Comparison of Actuals vs Approved Administrative & Other Expenses**

Particulars	(₹ in Crores)					Total
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	
Administrative expenses as per Tariff Order	15.70	16.40	18.20	19.30	20.50	<b>90.10</b>
Actual Administrative expenses submitted by AAI	13.95	35.44	42.92	59.69	49.82	<b>201.82</b>

**Figure 3: Analysis of Administrative & Other expenses**



<sup>2</sup> Source: ACI Airport Key Performance Indicator 2019

3.4.11 It is observed from the above table and figure that, the Administrative & General expenses of ₹ 201.82 Crores submitted by AAI for true up are much higher than ₹ 90.1 Crores approved by the Authority in the Tariff Order for the Second Control Period and is mainly on account of the increase in the CHQ & RHQ expenses.

3.4.12 The amount of CHQ & RHQ expenses as per Tariff Order of Second Control Period was ₹ 67.9 Crores whereas the actual expenses allocated by AAI up to FY21 was ₹ 172.9 Crores for the same period. This has resulted in a variance of approximately 155% and the year-wise details of the same are as follows:

**Table 8: Comparison of Actuals vs Approved CHQ / RHQ expenses**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
CHQ / RHQ expenses – as per tariff order	12.40	12.90	13.50	14.20	14.90	<b>67.90</b>
CHQ / RHQ expenses – as per actuals	10.57	30.67	38.21	53.04	40.41	<b>172.90</b>
<b>Variance</b>						<b>(105.0)</b>
<b>Variance in %</b>						<b>155%</b>

3.4.13 AAI in its reply dated 27<sup>th</sup> December 2023, gave the following reasons as the cause for this major variance:

- *CHQ/RHQ Expenses has been proposed based on FY 2015-16 with a growth rate between 4% to 5% YOY basis however the reason for such increase is mainly on account of pay revision as per 7<sup>th</sup> pay Commission , revised OTA/OPA, Travelling Allowance, medical allowance etc which was earlier not considered while submitting the proposal as no such information of such increase was available with AAI.*
- *Provision for 3<sup>rd</sup> pension (1<sup>st</sup> time) and CAD Pension were account for / considered in FY 2018-19 which were not provided during projection of 1<sup>st</sup> control period.*
- *Increase in Revenue also impact on allocation of CHQ / RHQ expenses as it was allocated based on revenue .(More Revenue of Airport will attract more allocation to Airport.)*
- *All increase in Exp of CHQ/RHQ are to be allocated.*

3.4.14 It is observed from the above comparative tables and illustrations that the A&G expenses incurred during the period significantly exceed the approved projections of the Tariff Order for the Second Control Period.

### Utilities Expenses

3.4.15 This section assesses the deviations in the Utilities expenses which includes expenses towards consumptions of stores and spares.

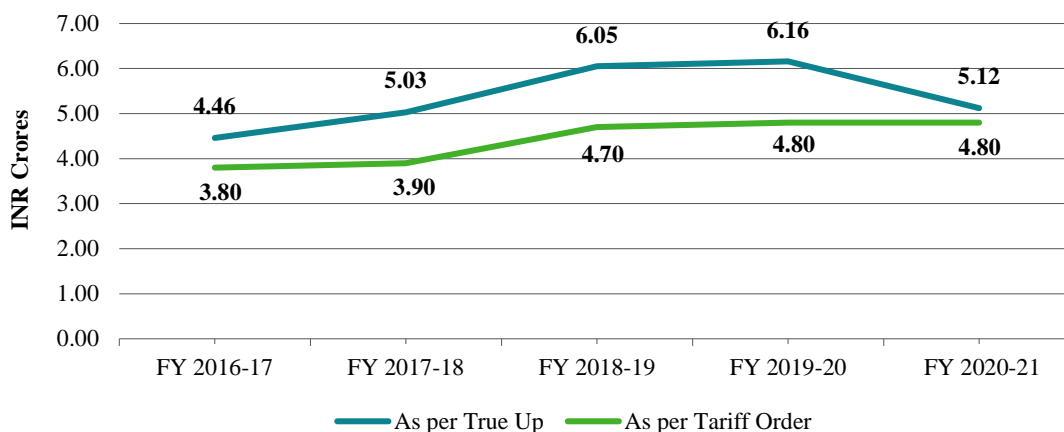
**Table 9: Comparison of Actuals vs Approved Utilities expenses**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Utility expenses – as per tariff order	3.80	3.90	4.70	4.80	4.80	<b>22.00</b>
Utility expenses – as per actuals	4.46	5.03	6.05	6.16	5.12	<b>26.82</b>



**Figure 4: Analysis of Utility expenses**



3.4.16 From the above table and figure, it can be observed that the Utility expenses of ₹ 26.81 Crores claimed by AAI for True up is higher than the approved expenses of ₹ 22 Crores as per the Tariff Order for the Second Control Period and the overall deviation works out to 22 % on the total Utility expenses.

3.4.17 It is also observed that the actual electricity expenses of ₹ 23.86 Crores incurred till FY21, is higher than the approved amount of ₹ 19.1 crores (i.e., an increase of approx. 25%). The year-wise details of the same are shown in the table below:

**Table 10: Comparison of Actuals vs Approved Electricity expenses**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Electricity expenses – as per tariff order	3.40	3.40	4.10	4.10	4.10	<b>19.10</b>
Electricity expenses – as per actuals	3.97	4.67	5.37	5.27	4.58	<b>23.86</b>
					<b>Variance</b>	<b>(4.76)</b>
					<b>Variance in %</b>	<b>25%</b>

3.4.18 The electricity expense has increased by 25% over the expenses approved for the second control period. AAI in its reply dated 27<sup>th</sup> December 2023, has clarified that “Consumption of electricity increases during second control period are due to addition of new facilities at airport. In addition, APDCL (Assam Power Distribution Company Limited) has also increased per unit rate for electricity consumption. Therefore, expenditure towards electricity has been increased against projection approved by AERA”. The Study team has verified the APDCL schedule of tariff and observed that there has been an increase in rates during the SCP. Considering the same, the actual expense incurred is proposed to be considered for the purposes of True up as per the Study.

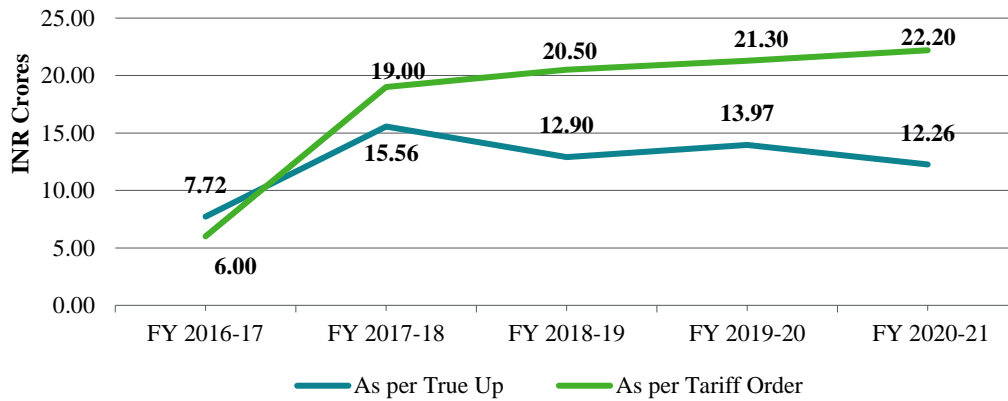
3.4.19 In conclusion, it is evident that the utility expenses have exceeded the projections, primarily due to the rise in electricity expenses. Electricity expenses have increased since power tariff is determined by third-party utility vendors. Given the criticality of these expenditures to the core operations and the external factors influencing them, the actual utility expenses incurred has been considered reasonable for the purposes of this study.

**Repair & Maintenance Expenses**

3.4.20 This section assesses the deviation in Repairs & Maintenance expense.

**Table 11: Comparison of Actuals vs Approved Repairs & Maintenance expenses***(₹ in Crores)*

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Repairs & Maintenance expenses* – as per tariff order	6.00	19.00	20.50	21.30	22.20	<b>89.00</b>
Repairs & Maintenance expenses* – as per actuals	7.72	15.56	12.90	13.97	12.26	<b>62.42</b>

*\*Excludes Runway Recarpeting expenses***Figure 5: Analysis of Repairs & Maintenance**

3.4.21 From the above table and figures, it can be observed that the actual Repair & Maintenance expenses of ₹ 62.42 Crores claimed by AAI for the Second Control Period (till FY21) does not include any runway recarpeting expenses and is significantly lower compared to the corresponding expense approved by the Authority for the Second Control Period and hence is proposed to be allowed by the Study.

### **Other Outflows**

3.4.22 It is observed from the tariff order of the Second Control Period that, the Authority had approved an amount of ₹ 2 Crores for other outflows mainly towards collection charges on UDF (refer Table 43 and Para 14.16 of the Tariff Order). The actual expenses incurred was ₹ 3.44 Crores for the same period as submitted by AAI. Out of these total expenses, ₹ 3.32 Crores was incurred for collection charges on PSF(F) (till FY2020-21), and UDF. The remaining ₹ 0.12 Crores was on account of Collection Charges Paid to IATA.

**Table 12: Comparison of Actuals vs Approved Other Outflows***(₹ in Crores)*

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Other Outflows – as per tariff order	0.30	0.40	0.40	0.40	0.50	<b>2.00</b>
Other Outflows – as per actuals	0.73	0.91	0.78	0.94	0.09	<b>3.44</b>

3.4.23 AAI mentioned that the expense head “Collection Charges Paid to IATA” prior to Second Control Period was included in CHQ/RHQ expense allocation. From Second Control Period onwards, expenses related to IATA collection charges have been allocated as per actuals to stations. Since these expenses were not included in “Other Outflows” prior to SCP, the same was not envisaged as part of Tariff Order for SCP and thus correspondingly the projections were lower. Thus, basis the

aforementioned reasons, the higher expense on account of “Other Outflows” has been considered in this Study.

3.4.24 As per AAI submission, it is clear that the other outflows comprises UDF collection Charges and the IATA collection Charges which are necessary for aeronautical revenue collection. In view of the same, these expenses are considered as reasonable and allowed.

### **3.5 Summary**

3.5.1 The Aeronautical O&M expenses approved by the Authority in the Tariff Order for Second Control Period amounted to ₹ 363.8 Crores.

3.5.2 The actual aeronautical O&M expenses incurred as per AAI’s True up submission aggregates to ₹ 426.31 Crores for Second Control Period. Aeronautical O&M expenses incurred by AAI in FY22 till COD (October 8, 2021) stood at ₹ 73.89 Crores, thereby totaling to ₹ 500.19 Crores.

3.5.3 The total Aeronautical O&M expenses as per Airport Operator’s True up submission for the period from post COD October 8, 2021 to March 31, 2022, aggregates to ₹ 47.87 Crores.

3.5.4 The total Aeronautical O&M expenses of ₹ 426.31 Crores incurred as per true up submissions for the Second Control Period excluding FY2021-22, is higher than the amount of ₹ 363.8 Crores approved in the Tariff Order, indicating a deviation of 17%.

3.5.5 Further, it is noted that the major reason for the overall deviation of 17% in the total Aeronautical O&M expenses for the Second Control period, is the increase in the actual CHQ & RHQ expenses incurred by AAI which is higher by 155% till FY21.

3.5.6 On an overall basis, the actual employee benefit expenses for second control period are well within the range of values approved by AERA in the Tariff Order for the Second Control Period. Therefore, the employee expenses of AAI for the Second Control Period seem to be reasonable as part of this Study.

3.5.7 The A&G expenses incurred during the period significantly exceeded the projections of the Tariff Order. This expense has been examined in detail, and the underlying factors have been rationalized in the subsequent sections of this report.

3.5.8 The utility expenses have exceeded the projections, primarily due to the rise in electricity expenses as a result of the addition of new facilities at the airport and increase in power tariff as levied by third-party utility service provider i.e., APDCL. Given the criticality of these expenditures to the core operations and the external factors influencing them, the actual utility expenses incurred has been considered reasonable for the purposes of this study.

3.5.9 The Repair & Maintenance expenses are significantly lower compared to the expense approved by the Authority for the Second Control Period and hence is proposed to be allowed by the Study.

3.5.10 The Study has determined that the Employee expenses of GIAL for the post-COD period considering that there are existing employees of AAI i.e., “Select Employees” deputed to GIAL for handling various departmental functions at the airport. The Employee Ratio for the post-COD period is based on employee headcount of GIAL, and corresponding employee costs of GIAL is allocated as per AERA guidelines.

3.5.11 A detailed analysis and rationalisation exercise have been undertaken in subsequent Chapters of this report.

## **4. ALLOCATION OF O&M EXPENSES BETWEEN AERONAUTICAL AND NON-AERONAUTICAL ACTIVITIES (FY 2016-17 TILL COD)**

### **4.1 Segregation of O&M expenses**

#### **4.1.1 Principle for allocation of expenses**

This Study segregates the O&M expenses of LGBIA into the following:

- **Aeronautical expenses:** Expenses which are incurred for operation and maintenance of Aeronautical assets have been categorised as Aeronautical expenses.
- **Non-aeronautical expenses:** Expenses which are incurred for operation and maintenance of Non-aeronautical assets have been categorized as Non-aeronautical expenses.
- **Common expenses:** Expenses for which the benefits or use cannot be exclusively linked to either Aeronautical or Non-aeronautical activities have been categorised as Common expenses. Also, the expenses primarily incurred for provision of Aeronautical services but are also used for provision of non-aeronautical services are categorised as Common Expenses. Expenses which are used for general corporate purposes including legal, administration, and management affairs are treated as Common Expenses.

Common expenses have further been allocated to Aeronautical activities based on an appropriate ratio, considering the nature and purpose of the services for which these expenses are incurred. However, in the absence of any specific information regarding the purpose of expense, a reasonable ratio is determined based on discussions with AAI, GIAL, and review of other records of GIAL.

### **4.2 Terms of the Concession Agreement pertaining to O&M expenses**

4.2.1 The specific clauses from the Concession Agreement entered between AAI and GIAL, which are relevant for the purposes of allocation of O&M expenses are reproduced below:

a) Clause 6.5 states that:

#### **6.5. Authority's Employees**

6.5.1 For the purpose of this Clause 6.5:

(i) "**Select Employees**" shall mean those employees of the Authority as set forth in Schedule S (of the rank of assistant general manager and below) who are posted at the Airport by the Authority and shall be deployed at the Airport for the duration of the Joint Management Period and Deemed Deputation Period. The Select Employees shall stand reduced to the extent of employees who retire, are deceased or otherwise separated from Authority's services during the Joint Management Period or Deemed Deputation Period. It is clarified that the Select Employees shall not be reduced to the extent of employees who are transferred by AAI.

(ii) "**Joint Management Period**" shall mean the period commencing from the COD and ending on the date which is 1 (one) calendar year after the COD.

(iii) "**Deemed Deputation Period**" shall mean the period commencing from the expiry of the Joint Management Period and ending on the date which is 2 (two) calendar years therefrom.

6.5.4 The Concessionaire shall bear the Select Employee Costs for the Joint Management Period and Deemed Deputation Period.

6.5.10. If, at the expiry of the Deemed Deputation Period, the number of Accepting Employees is less than 60% (sixty) percent of the Select Employees (the "Deficit Employees"), the

*Concessionaire shall, commencing from the expiry of the Deemed Deputation Period pay to the Authority, on a monthly basis, such amounts as may be indicated in an invoice to be raised by the Authority on the Concessionaire with regard to the emoluments payable by the Authority in respect of such Deficit Employees (the "Deficit Employee Costs").*

*(ii) The Deficit Employee Costs shall be considered for pass-through in the determination of the Aeronautical Charges.*

b) Clause 18.6.2 states that

*In the event that the Concessionaire, upon notice under Clause 18.6.1, fails to rectify or remove any hardship or danger within the period notified by the Authority, the Authority may exercise overriding powers under this Clause 18.6 and take over the performance of any or all the obligations of the Concessionaire to the extent deemed necessary by it for rectifying or removing such hardship or danger, provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required hereunder, provided further that any costs and expenses incurred by the Authority in discharge of its obligations hereunder shall be deemed to be O&M Expenses, and the Authority shall be entitled to recover them from the Concessionaire in accordance with the provisions of this Agreement. The amount so recovered shall not be considered for pass-through in the determination of the Aeronautical Charges.*

c) Clause 18.7 states that

*Save and except as otherwise expressly provided in this Agreement, in the event that the Airport or any part thereof suffers any loss or damage during the Concession Period from any cause whatsoever, the Concessionaire shall, at its cost and expense, rectify and remedy such loss or damage forthwith so that the Airport conforms to the provisions of this Agreement. If such loss or damage has resulted due to any breach or default in the performance obligations of the Concessionaire under this Agreement, then, the costs undertaken by the Concessionaire on the repair or rectification of such loss or damage, shall not be taken into consideration for the purposes of the determination of the Aeronautical Charges.*

d) Clause 18.15.7 states that

*All costs and expenses arising out of or relating to Safety Requirements shall be borne by the Concessionaire and may be considered by the Regulator as a part of the expenses incurred by the Concessionaire for the purposes of the Airport, while determining or revising the Aeronautical Charges, in accordance with this Agreement, Applicable Laws and Applicable Permits.*

e) Clause 24.3.1 states that

*The remuneration, cost and expenses of the Independent Engineer shall be paid by the Authority, and all such remuneration, cost and expenses shall be reimbursed by the Concessionaire to the Authority within 15 (fifteen) days of receiving a statement of expenditure from the Authority. Any amounts paid to the Independent Engineer shall be considered for a pass-through for the determination of the Aeronautical Charges by the Regulator.*

f) Clause 27.1.2 states that

*The Monthly Concession Fee paid/ payable by the Concessionaire to the Authority under and pursuant to the terms of this Agreement shall not be included as a part of costs for provision of Aeronautical Services and no pass-through would be available in relation to the same.*

g) Clause 28.3.4 states that

*Any payments made by the Concessionaire to any Designated Government Agency, excluding security services, for providing Reserved Services such as customs, immigration, plant quarantine, animal quarantine services, meteorological, and health services within the Airport shall be considered as pass-through for the purpose of the determination of the Aeronautical Charges.*

h) Clause 28.3.8 states that

*It is clarified that costs incurred by the Concessionaire with regard to legal services, shall not be considered by the Regulator for the purpose of determining the Aeronautical Charges.*

i) Clause 28.4.3 states that

*The Parties agree and acknowledge that the Concessionaire expressly waives its right to seek as pass-through in the Aeronautical Charges such costs and/ or expenses which the Concessionaire is restrained under this Agreement from seeking to be passed-through thereunder.*

### 4.3 Allocation of O&M expenses as per AAI's submission

4.3.1 The classification of O&M expenses as Aeronautical, Non-aeronautical and Common along with the basis of allocation of Common O&M expenses to Aeronautical and Non-aeronautical expenses, as submitted by AAI, has been presented in the table below:

**Table 13: Allocation of O&M expenses as per AAI's submission**

Expense Category	Expense Sub-Category / Description	Expense classification	Allocation
Payroll Expenses	Salary, Wages & Bonus; Overtime, Medical Expenses; Staff benefits, Provident Fund Expenses	Common	Employee Ratio
	Retirement benefits of Guwahati Employees (Provisions made at CHQ)	Common	Employee Ratio
Administrative and other expenses	Rates & taxes; aerodrome licencing fees; advertisement & publicity; CSR; Watch and ward expenses; other administrative expenses	Aeronautical	
	Insurance expenses	Common	Vehicle Ratio
	Legal fee and expenses	Aeronautical	
	Conservancy expenses	Common	Terminal Building Ratio
	Travelling expenses, Meeting and Seminar expenses	Aeronautical	
	Consultancy and Advisory expenses	Aeronautical	
	Office Expenses, Telephone Charges, Printing & Stationery, Miscellaneous expenses	Common	Employee Ratio
	Administrative expenses allocated from CHQ & RHQ	Common	Employee Ratio
Utility Expenses	Electricity related expenses	Common	Electricity Ratio
Consumption of stores and spares	Petrol for common vehicles	Common	Employee Ratio
	DG sets	Common	Electricity Ratio

Expense Category	Expense Sub-Category / Description	Expense classification	Allocation
Repairs & Maintenance	Airside civil works, STP and drainage	Aeronautical	
	Terminal side civil works	Common	Terminal Building Ratio
	Runway recarpeting expenses	Aeronautical	
	Airside and Aeronautical Electrical expenses	Aeronautical	
	Terminal Electrical Expenses	Common	Terminal Building Ratio
	Vehicles for Aeronautical Purpose and Fire Tenders	Aeronautical	
	Vehicles for common use	Common	Vehicle Ratio
	Equipment & furniture for Terminal building	Aeronautical	
	Equipment & furniture for office	Common	Employee Ratio
	AOCC expense	Aeronautical	
	Electronics equipment for Surveillance, Communication etc.	Aeronautical	
	IT Hardware	Common	Employee Ratio
	X Ray equipment	Aeronautical	
Other Outflows	Collection Charges on PSF(F) (till FY20)/UDF/IATA	Aeronautical	

4.3.2 The following allocation ratios have been adopted by AAI for allocation of Common expenses to Aeronautical and Non-aeronautical expenses:

**Table 14: Allocation ratios of Common O&M expenses as per AAI's submission**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 till COD
Employee Ratio (Aeronautical : Non-aeronautical)	98.65:1.35	98.08:1.92	98.84:1.16	98.10:1.90	98.03:1.97	98.60:1.40
Year-wise specific allocation ratio for CHQ & RHQ allocation of Admin Expenses (Aeronautical : Non-aeronautical)	95:5	95:5	95:5	95:5	95:5	95:5
Year-wise specific allocation ratio for CHQ allocation of Retirement Benefits (Aeronautical : Non-aeronautical)	98.65:1.35	98.08:1.92	98.84:1.16	98.10:1.90	98.03:1.97	98.60:1.40
Terminal Building ratio (Aeronautical : Non-aeronautical)	89.67:10.33	90.5:9.5	90.6:9.4	92.32:7.68	92.81:7.19	92.58:7.42
Electricity ratio (Aeronautical : ANS : Non-aeronautical)	84.79: 15.00: 0.21	84.76: 15.05: 0.19	84.74: 15.08: 0.18	84.77: 15.08: 0.16	84.75: 15.05: 0.20	84.52: 15.19: 0.29
Staff Quarters ratio (Aeronautical : ANS : Non-aeronautical)	49.11: 50.89: 0	52.94: 46.08: 0.98	60.83: 38.33: 0.83	65.81: 33.33: 0.85	64.58: 35.42: 0	59.21: 40.79: 0

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 till COD
Vehicle Ratio	74.07:	75.86:	77.14:	82.6 :	83.33:	80.00:
(Aeronautical : ANS : Non-aeronautical)	18.52: 7.41	17.24: 6.90	17.14: 5.71	13.04: 4.35	12.50: 4.17	15.00: 5.00

#### 4.4 Assessment of allocation ratios for Common expenses

The following ratios have been computed and considered in this Study report for appropriate segregation of Common expenses between Aeronautical and Non-aeronautical expenses for the period from FY 2016-17 to FY 2021-22 (up to COD).

##### 4.4.1 Terminal Building ratio

- a) It was observed that AAI, in its True up submission for the period up to October 8, 2021, has adopted Terminal Building ratio as per actuals in each tariff year. This ratio has been derived on the following basis:

**Table 15: Terminal Building Ratio submitted by AAI**

(Area in Sqm.)

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY21-COD
Total Non-aeronautical area	2043	1878	1858	1787	1673	1727
Total Terminal Building Area	17725	17890	17910	21488	21602	21548
% of Non-aeronautical area to total Terminal Building area	10.33%	9.5%	9.40%	7.68%	7.19%	7.42%
% of Aeronautical area to total Terminal Building area	89.67%	90.5%	90.60%	92.32%	92.81%	92.58%

- b) However, it is proposed that the actual Terminal Building ratio submitted by AAI of 89.02:10.98 (Aeronautical : Non-aeronautical) be used for the purpose of this Study, which is in line with the Tariff Order of GIAL for the Second Control Period. A detailed basis of such consideration has been provided as part of section 4.8.2 of Asset Allocation Report for Second Control Period of Guwahati Airport.

##### 4.4.2 Gross Fixed Assets ratio

- a) Based on the adjustments required in the Fixed Asset Register of AAI, identified in the *Study on allocation of assets between Aeronautical and Non-aeronautical assets for GIAL, (Asset Allocation Study)* and as per Table 22 of Asset Allocation Study, the ratio of gross fixed assets have been considered as follows:

**Table 16: Gross Fixed Assets ratio for AAI as identified in the Asset Allocation Study**

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22*
Gross Fixed Assets ratio (Aeronautical: Non-Aeronautical)	91.50:8.50	91.70:8.30	93.10:6.90	93.47:6.53	93.54:6.46	93.61:6.39

\*Up to COD (October 8, 2021)

##### 4.4.3 Employee Ratio

- a) The department-wise breakup of employees for the period from FY 2016-17 to COD along with the computation of Employee Ratio as per AAI True Up submission for Second Control Period up to COD is summarised as follows:



**Table 17: Employee details and Employee Ratio submitted by AAI**

Department	Classification	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 (till COD)
APD	Aeronautical	-	1	1	1	1	1
Terminal Management	Aeronautical	9	13	13	8	7	6
MT Workshop	Aeronautical	15	15	16	13	10	10
Fire	Aeronautical	43	42	55	56	54	52
Human Resource	Common	19	20	19	18	17	17
House Keeping	Aeronautical	8	7	8	11	11	6
Stores	Aeronautical	1	1	1	1	1	1
Finance	Common	8	8	8	7	7	8
Cargo	Aeronautical	1	2	2	2	2	3
Commercial	Non-Aeronautical	2	3	2	2	2	1
Engineering (C)	Aeronautical	13	16	17	11	10	12
Engineering (E)	Aeronautical	29	28	30	27	29	25
CNS (Other than Airport Systems)	ANS	49	55	62	58	50	48
CNS (Airport Systems)	Aeronautical	6	6	7	7	6	6
Land Management	Non-Aeronautical	-	-	-	1	1	1
ATC	ANS	62	73	76	77	76	76
<b>Total Strength</b>		<b>265</b>	<b>290</b>	<b>317</b>	<b>300</b>	<b>284</b>	<b>273</b>
<b>- Total Airport Strength</b>		148	156	172	158	152	143
<b>- Total Aeronautical Strength</b>		146	153	170	155	149	141
<b>- Total Non-Aeronautical Strength</b>		2	3	2	3	3	2
<b>- Total ANS Strength #</b>		117	134	145	142	132	130
<b>Employee Ratio (Aeronautical: Non-aeronautical)</b>		98.65:1.35	98.08:1.92	98.84:1.16	98.10:1.90	98.03:1.97	98.60:1.40
<b>Employee Ratio (Aeronautical: ANS: Non-aeronautical)</b>		55.09:44.15:0.76	52.76:46.21:1.03	53.63:45.74:0.63	51.67:47.33:1.00	52.46:46.48:1.06	51.65:47.62:1.73

\* Up to the date of COD (October 8, 2021)

# Includes CNS (Airport Systems) staff classified as Aeronautical by AAI

- b) The Study reviewed the basis for computing the Employee ratio as provided by AAI and noted that AAI had not considered the bifurcation of common employees in its calculation of the Employee ratio. All employees are classified as either Aeronautical, Non-aeronautical and ANS basis the department they work in.
- c) Further, AAI issued an email clarification dated 10<sup>th</sup> April 2024, stating "*Please refer to Financial Model form 11(a) wherein, staff classified under CNS (Airport Systems), are doing the work for Airport Operations, are therefore considered as Aeronautical employees for the purpose of calculating Payroll expenditure and Provisions*". The Study has reviewed and considered the same in their calculations for determining the Employee ratios for the Second Control Period up to COD.
- d) For calculating the net staff cost (payroll expenses), AAI had computed the expense share of Common Employees for ANS and Non-Aeronautical activities as illustrated in Table 18.

**Table 18: Common Employee Share submitted by AAI**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 (till COD)
Total Airport Strength	148	156	172	158	152	143
Total ANS Strength	117	134	145	142	132	130
Total Non-Aero Strength	2	3	2	3	3	2
Finance & HR (Common) Strength	27	28	27	25	24	25
Proportion of Finance & HR (Common) Strength to ANS	11.92	12.94	12.35	11.83	11.15	11.90
% of ANS for the Common Expenses	<b>8.05</b>	<b>8.29</b>	<b>7.18</b>	<b>7.49</b>	<b>7.34</b>	<b>8.33</b>
Proportion of Finance & HR (Common) to Non-Aero	0.36	0.54	0.31	0.47	0.47	0.35
% of Non-Aero for Common Staff expenses	<b>0.25</b>	<b>0.35</b>	<b>0.18</b>	<b>0.30</b>	<b>0.31</b>	<b>0.24</b>

The Study reviewed the above and observed that:

- AAI has computed the share of Direct Aeronautical, Non-aeronautical and ANS employees.
  - AAI has considered Finance and HR employees as Common employees.
  - AAI has computed the Common share of ANS employees in same proportion as Common to Total employees.
  - AAI has computed the Common share of Non-Aeronautical employees in same proportion as Non-Aeronautical to Airport employees.
- e) It is further noted that the costs directly pertaining to ANS employees have already been excluded for the purpose of analysis of O&M expenses as part of the Study but the Common expenses of ANS are included. Accordingly, it is proposed to exclude the Common employees allocated to ANS and the corresponding costs, since such costs are not a subject of the Study report. Accordingly, the Employee Ratio for the period FY 2016-17 to COD proposed by the Study is as below:

**Table 19: Employee Ratio proposed by the Study for the period FY 2016-17 till COD**

Department	Classification	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 (till COD)
APD	Aeronautical	-	1	1	1	1	1
Terminal Management	Aeronautical	9	13	13	8	7	6
MT Workshop	Aeronautical	15	15	16	13	10	10
Fire	Aeronautical	43	42	55	56	54	52
Human Resource	Common	19	20	19	18	17	17
House Keeping	Aeronautical	8	7	8	11	11	6
Stores	Aeronautical	1	1	1	1	1	1
Finance	Common	8	8	8	7	7	8
Cargo	Aeronautical	1	2	2	2	2	3
Commercial	Non-Aeronautical	2	3	2	2	2	1
Engineering (C)	Aeronautical	13	16	17	11	10	12
Engineering (E)	Aeronautical	29	28	30	27	29	25
CNS (Other than Airport Systems)	ANS	49	55	62	58	50	48
CNS (Airport Systems)	Aeronautical	6	6	7	7	6	6
Land Management	Non-Aeronautical	-	-	-	1	1	1
ATC	ANS	62	73	76	77	76	76
<b>Total</b>		<b>265</b>	<b>290</b>	<b>317</b>	<b>300</b>	<b>284</b>	<b>273</b>

Department	Classification	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 (till COD)
Direct Aeronautical employees		125	131	150	137	131	122
Direct Non-Aeronautical employees		2	3	2	3	3	2
Direct ANS employees		111	128	138	135	126	124
Common employees		27	28	27	25	24	25
<b>Total</b>		<b>265</b>	<b>290</b>	<b>317</b>	<b>300</b>	<b>284</b>	<b>273</b>
<b>Common employee's apportionment</b>							
Aeronautical		14	14	14	12	12	12
Non-Aeronautical		0	0	0	0	0	0
ANS (deemed Non-Aeronautical)		13	14	13	12	12	13
<b>Total</b>		<b>27</b>	<b>28</b>	<b>27</b>	<b>25</b>	<b>24</b>	<b>25</b>
<b>Head Count after apportionment of Common employees</b>							
Total Aeronautical employees (A)		139	145	164	149	143	134
Total Non-Aeronautical employees (B)#		15	17	15	16	15	15
Total ANS employees (C)		111	128	138	135	126	124
Total employees (D=A+B+C)		<b>265</b>	<b>290</b>	<b>317</b>	<b>300</b>	<b>284</b>	<b>273</b>
Employee Ratio (Aeronautical (A): Non-aeronautical(B))		90.35: 9.65	89.53: 10.47	91.56: 8.44	90.59: 9.41	90.59: 9.41	90.10: 9.90
Employee Ratio (Aeronautical (A): Non-aeronautical (B): ANS (C))		52.51: 5.61: 41.88	50.01: 5.85: 44.14	51.71: 4.77: 43.52	49.82: 5.17: 45.00	50.39: 5.24: 44.37	49.18: 5.40: 45.41

\* Up to COD (October 8, 2021)

# includes Common employees apportioned for ANS (deemed non-aeronautical)

- f) The Employee ratios thus determined has been utilized for segregation of all OPEX including payroll expenses, retirement benefits etc.

#### 4.4.4 Electricity ratio

- a) The Study reviewed the Electricity ratio submitted by AAI, for all tariff years of Second Control period up to COD. It is understood that the power costs of areas pertaining to Non-aeronautical activities are recovered from the respective concessionaires and only the costs pertaining to the other common areas in the airport (e.g., Administrative office) would pertain to Non-aeronautical activities. The Study concurs with the Electricity ratio as submitted by AAI and the proportion of Non-aeronautical allocation is deemed appropriate.

**Table 20: Electricity ratio as per AAI's submission**

Category	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 till COD
Aeronautical	84.79%	84.76%	84.74%	84.77%	84.75%	84.52%
Non-aeronautical	0.21%	0.19%	0.18%	0.16%	0.20%	0.29%
ANS	15.00%	15.05%	15.08%	15.08%	15.05%	15.19%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

#### 4.4.5 Quarter ratio

- a) The Study reviewed the Staff Quarter ratio submitted by AAI, for all tariff years of Second Control period up to COD. It is understood that AAI has allocated this basis the number of staff engaged in aeronautical, commercial and ANS activities. The Study considers the Quarter ratio submitted by AAI as appropriate.

**Table 21: Quarter ratio as per AAI's submission**

Category	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 till COD
Aeronautical	49.11%	52.94%	60.83%	65.81%	64.85%	59.21%
Non-aeronautical	0.00%	0.98%	0.83%	0.85%	0.00%	0.00%
ANS	50.89%	46.08%	38.33%	33.33%	35.42%	40.79%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

#### 4.4.6 Vehicle ratio

- a) The Study reviewed the Vehicle ratio as submitted by AAI, for all tariff years of Second Control period up to COD. The Study considers the Quarter ratio submitted by AAI, as appropriate.

**Table 22: Vehicle ratio as per AAI's submission**

Category	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 till COD
Aeronautical	74.07%	75.86%	77.14%	82.61%	83.33%	80.00%
Non-aeronautical	7.41%	6.90%	5.71%	4.35%	4.17%	5.00%
ANS	18.52%	17.24%	17.14%	13.04%	12.50%	15.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

#### 4.5 Allocation of O&M expenses as per Study

- 4.5.1 As part of this Study report, the description, nature and purpose of various expense and expense categories, as well as basis for their segregation into Aeronautical, Non-aeronautical and Common expenses has been reviewed.
- 4.5.2 Further, as part of the Study report, Aeronautical expenses have been directly considered for True up whereas expenses identified as Non-aeronautical are excluded from True up. The expenses classified as Common, are segregated between Aeronautical and Non-aeronautical expenses based on a suitable ratio. This ratio has been determined based on the underlying proportion of their expected utilisation for Aeronautical and Non-aeronautical services and activities at the Airport.
- 4.5.3 Based on the review of submissions made by AAI, the expenses have been analysed on a case-to-case basis and in case of any discrepancies identified in allocation, appropriate reclassification has been made for such expenses.

**Table 23: Allocation of O&M expenses as per Study**

Expense Category	Expense Sub-Category / Description	Expense classification as per AAI	Allocation as per Study
<b>Payroll Expenses</b>	Salary, Wages & Bonus; Overtime, Medical Expenses; Staff benefits, Provident Fund Expenses	Common (Employee Ratio)	Common (Employee Ratio)
	Retirement benefits of Guwahati Employees (Provisions made at CHQ)	Common (Employee Ratio)	Common (Employee Ratio)
<b>Administrative and other expenses</b>	Rates & taxes; aerodrome licencing fees; advertisement & publicity; CSR; Watch and ward expenses, other administrative expenses	Aeronautical	Aeronautical

Expense Category	Expense Sub-Category / Description	Expense classification as per AAI	Allocation as per Study
	Insurance expenses	Common (Vehicle Ratio)	Common (Vehicle Ratio)
	Legal Expenses	Aeronautical	Common (Gross Block Ratio)
	Conservancy expenses	Common (Terminal Building Ratio)	Common (Terminal Building Ratio)
	Travelling Expenses, Meeting and Seminar Expenses	Aeronautical	Common (Employee Ratio)
	Consultancy and Advisory Expenses	Aeronautical	Common (Gross Block Ratio)
	Office Expenses, Telephone Charges, Printing & Stationery, Miscellaneous expenses	Common (Employee Ratio)	Common (Employee Ratio)
	Administrative expenses allocated from CHQ & RHQ	Common (Employee Ratio)	Common (Employee Ratio)
<b>Utility Expenses</b>	Electricity related expenses	Common (Electricity Ratio)	Common (Electricity Ratio)
<b>Consumption of stores and spares</b>	Petrol for common vehicles	Common (Employee Ratio)	Common (Employee Ratio)
	DG sets	Common (Electricity Ratio)	Common (Electricity Ratio)
<b>Repairs &amp; Maintenance</b>	Airside civil works, STP & drainage	Aeronautical	Aeronautical
	Terminal side civil works	Common (Terminal Building Ratio)	Common (Terminal Building Ratio)
	Runway recarpeting expenses	Aeronautical	Aeronautical
	Airside & Aeronautical Electrical Expenses	Aeronautical	Aeronautical
	Terminal Electrical Expenses	Common (Terminal Building Ratio)	Common (Terminal Building Ratio)
	Vehicles for Aeronautical Purpose and Fire Tenders	Aeronautical	Aeronautical
	Vehicles for Common Use	Common (Vehicle Ratio)	Common (Vehicle Ratio)
	Equipment & furniture for Terminal Building	Aeronautical	Common (Terminal Building ratio)
	Equipment & furniture for Office	Common (Employee Ratio)	Common (Employee Ratio)
	AOCC expense	Aeronautical	Aeronautical
	Electronic Equipment for Surveillance, Communication etc.	Aeronautical	Aeronautical
	IT Hardware	Common (Employee Ratio)	Common (Employee Ratio)
	X Ray Equipment	Aeronautical	Aeronautical
<b>Other Outflows</b>	Collection Charges on PSF(F)(till FY20)/UDF/IATA	Aeronautical	Aeronautical

#### 4.6 Reallocation and Adjustment of O&M expenses of AAI as per Study

The Study has assessed AAI's allocation along with basis and computation of O&M expenses. The proposed reallocations and re-computations of expenses are discussed in the following paragraphs.

##### 4.6.1 Payroll Costs

- AAI has proposed to allocate the Payroll Expenses into Aeronautical, Non-Aeronautical or Common and reallocate the Common expenses using Employee Ratio (refer Table 17). It was noted that the costs pertaining to ANS employees have been accounted separately and have not been included in the Payroll Expenses.
- AAI has allocated the Payroll Expenses based on the Employee Ratio determined by them (refer Table 17). However, as explained in paragraph 4.5.3 d., the Employee Ratio has been revised as per the Study (refer Table 19). All staff related costs have been allocated as per revised Employee ratio.
- For non-aeronautical allocation of 'Retirement benefits of Guwahati Employees (Provisions made at CHQ)', AAI has considered the employee ratios as per Table 17.
- Expenses related to 'Retirement Benefit provided at CHQ in r/o Guwahati Employees' has been segregated into Aeronautical: Non-Aeronautical ratio of 95:5, as per para 14.8 of Order No. 38/2017-18 in respect of GIAL for Second Control Period, in this Study. The impact of same is summarised below:

**Table 24: Impact on Retirement Benefits as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>AAI Submission</b>								
Retirement benefits of Guwahati Employees (Provisions made at CHQ) (A)	0.75	4.03	8.87	5.36	0.87	<b>19.88</b>	1.03	<b>20.91</b>
Non-aeronautical allocation as per AAI (in %)	1.35%	1.92%	1.16%	1.90%	1.97%		1.40%	
Non-Aeronautical portion as per AAI (B)	0.01	0.08	0.10	0.10	0.02	<b>0.31</b>	0.01	<b>0.32</b>
Net Retirement benefits as per AAI C=(A-B)	<b>0.74</b>	<b>3.95</b>	<b>8.77</b>	<b>5.26</b>	<b>0.85</b>	<b>19.57</b>	<b>1.02</b>	<b>20.59</b>
<b>As per Study</b>								
Non-Aeronautical allocation as per Study (in %)	9.65%	10.47%	8.44%	9.41%	9.41%		9.90%	
Non-Aeronautical portion as per Study (D)	0.07	0.42	0.75	0.49	0.08	<b>1.82</b>	0.10	<b>1.92</b>
Net Retirement benefits as per Study E=(A-D)	<b>0.68</b>	<b>3.61</b>	<b>8.12</b>	<b>4.76</b>	<b>0.77</b>	<b>17.94</b>	<b>0.93</b>	<b>18.87</b>
<b>Impact</b>	<b>(0.06)</b>	<b>(0.34)</b>	<b>(0.65)</b>	<b>(0.49)</b>	<b>(0.08)</b>	<b>(1.63)</b>	<b>(0.10)</b>	<b>(1.73)</b>

\* Up to the date of COD (October 8, 2021)

Thus, the total impact on account of the revision of the Employee ratio, and reallocation of retirement benefits of GIAL employees provided at CHQ, on Payroll Costs has been summarised below:

**Table 25: Impact on Payroll Costs as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>AAI Submission</b>								
Aeronautical Ratio (%)	98.65%	98.08%	98.84%	98.10%	98.03%	-	98.60%	-

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
Staff Cost	15.90	20.07	23.28	27.16	25.84	<b>112.25</b>	13.77	<b>126.02</b>
Retirement benefits of Guwahati Employees (Provisions made at CHQ)	0.74	3.95	8.77	5.16	0.83	<b>19.57</b>	1.03	<b>20.60</b>
<b>Total Staff Cost</b>	<b>16.64</b>	<b>24.02</b>	<b>32.05</b>	<b>32.42</b>	<b>26.69</b>	<b>131.82</b>	<b>14.80</b>	<b>146.62</b>
<b>As per Study</b>								
Aeronautical Ratio (%)	90.35%	89.53%	91.56%	90.59%	90.59%	-	90.10%	-
Staff Cost	15.94	20.39	23.93	27.61	25.85	<b>113.71</b>	13.86	<b>127.57</b>
Retirement benefits of Guwahati Employees (Provisions made at CHQ)	0.68	3.61	8.12	4.76	0.77	<b>17.94</b>	0.93	<b>18.87</b>
<b>Total Staff Cost</b>	<b>16.62</b>	<b>24.00</b>	<b>32.05</b>	<b>32.37</b>	<b>26.62</b>	<b>131.66</b>	<b>14.78</b>	<b>146.44</b>
<b>Total Impact</b>	<b>(0.02)</b>	<b>(0.02)</b>	<b>(0.00)</b>	<b>(0.05)</b>	<b>(0.07)</b>	<b>(0.16)</b>	<b>(0.02)</b>	<b>(0.18)</b>

\* Up to the date of COD (October 8, 2021)

- e) It is observed that although the overall impact on payroll costs is negative, there is a slight increase in aeronautical portion of total staff costs according to the study. This increase is attributed to differences in the method of calculating staff costs. The Study has adopted the allocation methodology as followed in case of other similar airports.

#### 4.6.2 Administrative and General expenses

- a) The submissions by AAI have been analysed and it has been observed that the Administrative and General expenses include certain expenses such as rates and taxes which directly relate to the Aeronautical activity and certain expenses such as insurance of vehicles, manpower hiring, printing & stationery, conveyance, employee training etc, which are linked to Common expense. Therefore, each component of the Administrative and General expenses is proposed to be allocated as per suitable ratio in this Study.
- b) As per the true up submission of AAI, Travelling and Conveyance Expenses of airport employees has been considered as 100% Aeronautical. However, expenses related to travelling and conveyance are incurred for the airport in general and is not applicable specifically to the aeronautical activities at the airport. The airport employees cater to both aeronautical and non-aeronautical activities. Therefore, it would not be fair to consider this cost as entirely aeronautical. Since these expenses are incurred by the employees, the Employee ratio would be more appropriate for the allocation of these expenses. Accordingly, the allocation was revised. The impact of this change is as follows.

**Table 26: Impact on Travelling and Conveyance Expense as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>AAI Submission</b>								
Aeronautical Ratio	100%	100%	100%	100%	100%		100%	
Travelling expenses as per AAI	0.54	0.48	0.50	0.42	0.42	<b>2.36</b>	0.29	<b>2.64</b>
<b>As per Study</b>								
Aeronautical Ratio   Employee Ratio	90.35%	89.53%	91.56%	90.59%	90.59%	-	90.10%	-
Travelling expenses as per Study	0.49	0.43	0.46	0.38	0.38	<b>2.13</b>	0.26	<b>2.39</b>
<b>Total Impact</b>	<b>(0.05)</b>	<b>(0.05)</b>	<b>(0.04)</b>	<b>(0.04)</b>	<b>(0.04)</b>	<b>(0.22)</b>	<b>(0.03)</b>	<b>(0.25)</b>

\* Up to the date of COD (October 8, 2021)

- c) AAI in its true up submission has considered Consultancy/Advisory/Professional Services expenses as 100% Aeronautical. However, these charges are not applicable specifically to the aeronautical activities at the airport. The airport caters to both aeronautical and commercial activities. Therefore, it would not be fair to consider these costs as entirely aeronautical. In the absence of the details regarding the advisory services procured, the Gross Block ratio would be more appropriate for the allocation of these expenses since these are believed to be incurred for the airport in general. Accordingly, the allocation was revised. The impact of this change is as follows:

**Table 27: Impact on Legal and Professional Consultancy/Advisory Fee as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>AAI Submission</b>								
Aeronautical Ratio	100%	100%	100%	100%	100%		100%	
Legal and Consulting/Advisory Fees as per AAI	0.007	0.076	0.168	0.049	0.222	<b>0.522</b>	0.019	<b>0.542</b>
<b>As per Study</b>								
Aeronautical Ratio   Gross Block ratio	91.50%	91.70%	93.10%	93.47%	93.54%	-	93.61%	-
Legal and Consulting/Advisory Fees as per Study	0.007	0.070	0.156	0.045	0.216	<b>0.495</b>	0.018	<b>0.513</b>
<b>Total Impact</b>	<b>0.00</b>	<b>(0.006)</b>	<b>(0.012)</b>	<b>(0.003)</b>	<b>(0.006)</b>	<b>(0.028)</b>	<b>(0.001)</b>	<b>(0.029)</b>

\* Up to the date of COD (October 8, 2021)

- d) Under Watch and Ward expenses, with respect to Account No. 729004000 related to Hiring-Manpower, the Study observed that the Aeronautical component of the expenses for FY16-17, FY17-18, FY 18-19, and FY 19-20 had been computed incorrectly. The impact of the correction done for the same has been summarised below.

**Table 28: Impact on Watch and Ward Expenses as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
Watch & Ward Expenses as per AAI	0.52	0.64	0.70	1.02	2.96	<b>5.84</b>	2.53	<b>8.36</b>
Watch & Ward Expenses as per Study	0.49	0.50	0.65	0.91	2.96	<b>5.51</b>	2.53	<b>8.04</b>
<b>Total Impact</b>	<b>(0.03)</b>	<b>(0.14)</b>	<b>(0.05)</b>	<b>(0.11)</b>	<b>0.00</b>	<b>(0.33)</b>	<b>0.00</b>	<b>(0.32)</b>

\* Up to the date of COD (October 8, 2021)

- e) It is observed that the CHQ Net Off expense amount to be allocated to the North-east region has been incorrectly computed in FY 2016-17. A query was raised to this effect to which AAI vide email response dated December 27, 2023, clarified that “In FY 2016-17, the CHQ Net off Revenue allocation is. Rs. 24.59 Crore instead of Rs. 3.77 (Cr) for all stations in the NER including Guwahati. Kindly consider the amount Rs. 24.59 (Cr). As desired, we hereby confirm that corrected expense (Net off Revenue) against this head is Rs. 24.59 (Cr). Accordingly, CHQ/RHQ amount for FY 2016-17 may be considered Rs. 25.05 (Cr).”
- f) It was additionally observed that the CHQ/RHQ overhead expense for FY21-22 was determined through escalation of 5% over the previous year value and the same was considered for full year. AAI was requested vide email dated October 26, 2023, to provide rationale for full year consideration instead of pro-rata consideration till COD. AAI in its response dated November 14, 2023, mentioned that “Revised value of CHQ/RHQ expenses on pro-rata basis up-to COD



is 2208.87 (Lakh) (  $4254 * 1.05 * 190 / 365$ ). For the FY 2020-21 CHQ/RHQ expense is Rs. 4254 (lakh). Further, CHQ/RHQ expenses considered 95% for Aero (5% for Non-Aero).”

In this Study, the CHQ/RHQ overhead expense for FY21-22 up to COD is recomputed through suitable ratio determined as per the number of actual days.

- g) The basis for allocation of AAI's CHQ & RHQ expenses to GIAL and other airports was reviewed and the following is noted:
- All expenses incurred by CHQ & RHQ (such as staff costs, Administrative and other expenses, Repairs & Maintenance, and utilities expenses, etc.) is allocated to all AAI airports.
  - All the above-mentioned expenses, including Employee benefit expenses, are allocated in the ratio of revenues earned by each airport.
  - Expenses such as legal costs, interest and penalties are related to specific airports. However, these have also been allocated to the common pool and apportioned to all AAI airports.
- h) Based on analysis of the major components of CHQ & RHQ expenses for the period from FY 2016- 17 to FY 2020-21 submitted by AAI, the following expense allocation has been proposed as per Study:

i. **Pay and Allowances**

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

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

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

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

ii. **Administrative and other expenses**

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

i) Accordingly, the revised allocation of CHQ & RHQ expenses to AAI is ₹ 176.11 Crores as compared to ₹ 215.33 Crores submitted by AAI and the same has been proposed by carrying-out the following rationalisation:

- By excluding 20% of CHQ and RHQ pay and allowances towards adjustment for support services to ANS, Cargo, Commercial at CHQ & RHQ and Officials of Directorate and Commercial
- By excluding the allocated costs of legal and arbitration expenses and interest and penalties paid to Government of India by AAI at CHQ & RHQ and
- By considering the allocation of expenses only up to COD (i.e., for 190 days) as against the entire year considered by AAI for the FY 2020-21
- By recomputing the CHQ Net Off expense amount to be allocated to the North-east region basis the corrected expense (Net off revenue) against this head for FY 2016-17.

The impact of the above changes discussed are as follows:

**Table 29: Impact on CHQ/RHQ Overhead Expenses as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>As per AAI</b>								
CHQ/RHQ Overhead expenses as per AAI (A)	11.13	32.28	40.22	55.83	42.54	<b>182.00</b>	44.67	<b>226.67</b>
Aeronautical component as per AAI (95%) (B)	10.57	30.67	38.21	53.04	40.41	<b>172.90</b>	42.43	<b>215.33</b>
<b>As per Study</b>								
Total CHQ/RHQ Overhead expenses after rationalisation as per Study (C)	20.31	25.23	30.83	45.73	34.86	<b>156.96</b>	19.15	<b>176.11</b>
<b>Total Impact (D = C – B)</b>	<b>9.74</b>	<b>(5.43)</b>	<b>(7.38)</b>	<b>(7.31)</b>	<b>(5.55)</b>	<b>(15.94)</b>	<b>(23.28)</b>	<b>(39.22)</b>

\* Up to the date of COD (October 8, 2021)

j) As per the true up submissions of AAI, there was a line item called "CSR Capex" included under A&G expenses. The allowable CSR expense is calculated based on the provision of Companies Act, 2013 where the average net profit in the aeronautical P&L for preceding three years is calculated and in case the value is positive CSR is computed as 2% of average net aeronautical profit. This is the maximum CSR eligibility applicable to be trued up as part of operational expenditure. However, in case where the CSR actually paid by AAI is lower than the eligible value, the Study has considered the actual CSR values as per the Trial Balance of AAI.

k) Thus, it is proposed to reallocate the CSR expenses incurred based on Regulatory Profits Before Tax (PBT), thereby reducing the Aeronautical CSR expenses by ₹ 0.03 Crores for the period from FY 2016-17 to COD. The impact on account of the proposed reallocations is summarised below:

**Table 30: Impact on CSR Expenses as per Study**

Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22*	Total
<b>AAI submission</b>										
Total CSR Costs – as per AAI (A)				0.03	-	0.38	0.51	0.49	-	<b>1.41</b>
Aeronautical ratio – AAI (B)				1.00	1.00	1.00	1.00	1.00		
Aeronautical CSR Costs as per AAI (C=A*B)				<b>0.03</b>	<b>0.00</b>	<b>0.38</b>	<b>0.51</b>	<b>0.49</b>	<b>0.00</b>	<b>1.41</b>

Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22*	Total
<b>Revision as per the Study</b>										
Aeronautical revenues (D)	30.50	58.40	74.90	97.05	118.91	158.14	156.04	73.65	41.73	<b>809.32</b>
Aeronautical Operational expense (E)	41.10	52.10	47.00	50.27	64.33	79.06	100.65	85.93	50.16	<b>570.60</b>
Aeronautical Depreciation (F)	9.50	9.70	8.70	7.00	7.17	9.91	13.27	13.77	7.26	<b>86.28</b>
<b>Regulatory PBT (H = D – E – F)</b>	(20.10)	(3.40)	19.20	39.78	47.41	69.17	42.12	(26.05)	(15.69)	<b>152.44</b>
<b>Average Regulatory PBT (last 3 financial years) (G)</b>				(1.43)	18.53	35.46	52.12	52.90	28.41	
<b>Aeronautical CSR expenses as per the study (2% of average PBT of 3 preceding Financial Years) (I = 2%*G) or claimed by AAI whichever is less</b>				<b>0.00</b>	<b>0.00</b>	<b>0.38</b>	<b>0.51</b>	<b>0.49</b>	<b>0.00</b>	
<b>Downward adjustment in CSR expense due to revision (J= C – I)</b>				<b>0.03</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.03</b>

\* Up to the date of COD (October 8, 2021)

- 1) The following table summarizes the A&G expenses as submitted by AAI vis-à-vis the expenses derived as per this Study basis the adjustments and revised allocation ratios discussed above.

**Table 31: Impact on A&G Expenses as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>A&amp;G Expenses as per AAI</b>								
Rates & Taxes	0.00	0.00	0.01	0.01	0.10	<b>0.12</b>	0.00	<b>0.12</b>
Telephone Exp	0.06	0.06	0.04	0.05	0.05	<b>0.26</b>	0.03	<b>0.29</b>
Other Fees like Aerodrome licencing	0.00	0.00	0.00	0.14	0.98	<b>1.12</b>	0.01	<b>1.13</b>
Travelling and Conveyance	0.54	0.48	0.50	0.42	0.42	<b>2.36</b>	0.29	<b>2.65</b>
Advertisement	0.01	0.03	0.09	0.00	0.02	<b>0.15</b>	0.00	<b>0.15</b>
Office Expenses	0.49	0.73	0.74	0.66	0.59	<b>3.21</b>	0.36	<b>3.57</b>
Legal & Professional Fee	0.01	0.08	0.17	0.05	0.22	<b>0.53</b>	0.02	<b>0.55</b>
Watch & Ward Expenses	0.52	0.64	0.70	1.02	2.96	<b>5.84</b>	2.53	<b>8.37</b>
Conservancy Charges	1.65	2.63	2.04	3.73	3.46	<b>13.51</b>	2.68	<b>16.19</b>
Insurance Costs	0.02	0.03	0.03	0.03	0.05	<b>0.16</b>	0.05	<b>0.21</b>
CSR	0.03	0.00	0.38	0.51	0.49	<b>1.41</b>	0.00	<b>1.41</b>
Miscellaneous Expenses	0.04	0.10	0.01	0.02	0.06	<b>0.23</b>	0.03	<b>0.26</b>
Apportionment Of Admn. Expenses CHQ/RHQ (Overhead Expenses)	10.57	30.67	38.21	53.04	40.41	<b>172.90</b>	42.43	<b>215.33</b>
<b>Total of A&amp;G Expenses</b>	<b>13.95</b>	<b>35.45</b>	<b>42.92</b>	<b>59.68</b>	<b>49.81</b>	<b>201.82</b>	<b>48.43</b>	<b>250.25</b>
<b>A&amp;G Expenses as per Study</b>								
Rates & Taxes	0.00	0.00	0.01	0.01	0.10	<b>0.13</b>	0.00	<b>0.13</b>
Telephone Exp	0.06	0.06	0.04	0.05	0.05	<b>0.25</b>	0.03	<b>0.28</b>

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
Other Fees like Aerodrome licencing	0.00	0.00	0.00	0.14	0.98	<b>1.13</b>	0.01	<b>1.14</b>
Travelling and Conveyance	0.49	0.43	0.46	0.38	0.38	<b>2.13</b>	0.26	<b>2.39</b>
Advertisement	0.01	0.03	0.09	0.00	0.02	<b>0.15</b>	0.00	<b>0.15</b>
Office Expenses	0.45	0.66	0.69	0.61	0.55	<b>2.96</b>	0.33	<b>3.29</b>
Legal & Professional Fee	0.007	0.07	0.16	0.05	0.22	<b>0.49</b>	0.02	<b>0.51</b>
Watch & Ward Expenses	0.49	0.50	0.65	0.91	2.96	<b>5.51</b>	2.53	<b>8.04</b>
Conservancy Charges	1.64	2.60	2.02	3.60	3.32	<b>13.17</b>	2.58	<b>15.75</b>
Insurance Costs	0.02	0.03	0.03	0.03	0.05	<b>0.16</b>	0.05	<b>0.21</b>
CSR	0.03	0.00	0.38	0.51	0.49	<b>1.40</b>	0.00	<b>1.40</b>
Miscellaneous Expenses	0.04	0.10	0.01	0.02	0.06	<b>0.24</b>	0.03	<b>0.27</b>
Apportionment Of Admn. Expenses CHQ/RHQ (Overhead Expenses)	20.31	25.23	30.83	45.73	34.86	<b>156.96</b>	19.15	<b>176.11</b>
<b>Total of A&amp;G Expenses</b>	<b>23.56</b>	<b>29.71</b>	<b>35.36</b>	<b>52.05</b>	<b>44.03</b>	<b>184.70</b>	<b>24.99</b>	<b>209.69</b>
<b>Total Impact</b>	<b>9.60</b>	<b>(5.73)</b>	<b>(7.56)</b>	<b>(7.64)</b>	<b>(5.79)</b>	<b>(17.12)</b>	<b>(23.45)</b>	<b>(40.57)</b>

\* Up to the date of COD (October 8, 2021)

#### 4.6.3 Utility Expenses

##### a) Electricity and Water Charges

AAI's submission has been analysed for expenses related to electricity and water charges. It was noted that AAI had made recoveries from concessionaires and the same had been netted off from the total expenses.

Based on AAI's response above, it is understood that the electricity expenses pertain only to airport and is net of recoveries, hence no further allocation of these costs would be required

##### b) Consumption of Stores and Spares

- i. Expenses under the head of 'Consumption of Stores and Spares' included petrol for vehicles and other usage, tyres, diesel oil for DG sets, paper glass, electrical spares, and other consumable items.
- ii. In FY16-17, expenses under head 'Consumables-Paper Glass' were allocated as 100% aeronautical. Since, these items get utilised across the terminal building, allocating it as 100% aeronautical signals that they primarily pertain to aeronautical activities, which is not true. As Paper glasses are primarily used within the terminal building, the Study proposes to allocate this expense based on the Terminal Area Ratio.
- iii. The following table summarizes the 'Consumption of Stores and Spares' expenses as submitted by AAI vis-à-vis the expenses derived as per this Study basis the adjustments and revised allocation ratios discussed above.

**Table 32: Impact on Consumption of Stores & Spares Expenses as per Study***(₹ in Crores)*

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
Consumption of Stores and Spares Expenses as per AAI	0.49	0.36	0.67	0.89	0.54	<b>2.95</b>	0.29	<b>3.24</b>
Consumption of Stores and Spares Expenses as per Study	0.48	0.35	0.65	0.85	0.52	<b>2.85</b>	0.28	<b>3.13</b>
<b>Total Impact</b>	<b>(0.01)</b>	<b>(0.01)</b>	<b>(0.02)</b>	<b>(0.04)</b>	<b>(0.02)</b>	<b>(0.10)</b>	<b>(0.01)</b>	<b>(0.11)</b>

\* Up to the date of COD (October 8, 2021)

- iv. The following table summarizes the Utilities expenses as submitted by AAI vis-à-vis the expenses derived as per this Study basis the adjustments and revised allocation ratios discussed above.

**Table 33: Impact on Utilities Expenses as per Study***(₹ in Crores)*

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>Utilities Expenses as per AAI</b>								
Power Charges	3.97	4.67	5.37	5.27	4.58	<b>23.86</b>	2.72	<b>26.57</b>
Water Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
Consumption of Stores & Spares	0.49	0.36	0.67	0.89	0.54	<b>2.95</b>	0.29	<b>3.24</b>
Total of Utilities Expenses	<b>4.46</b>	<b>5.03</b>	<b>6.05</b>	<b>6.16</b>	<b>5.12</b>	<b>26.81</b>	<b>3.00</b>	<b>29.81</b>
<b>Utilities Expenses as per Study</b>								
Power Charges	3.97	4.67	5.37	5.27	4.58	<b>23.86</b>	2.72	<b>26.57</b>
Water Charges	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>	0.00	<b>0.00</b>
Consumption of Stores & Spares	0.48	0.35	0.65	0.86	0.52	<b>2.85</b>	0.28	<b>3.13</b>
Total of Utilities Expenses	<b>4.45</b>	<b>5.02</b>	<b>6.03</b>	<b>6.12</b>	<b>5.10</b>	<b>26.72</b>	<b>2.99</b>	<b>29.71</b>
<b>Total Impact</b>	<b>(0.01)</b>	<b>(0.01)</b>	<b>(0.02)</b>	<b>(0.04)</b>	<b>(0.02)</b>	<b>(0.09)</b>	<b>(0.01)</b>	<b>(0.10)</b>

\* Up to the date of COD (October 8, 2021)

#### 4.6.4 Repairs & Maintenance expenses

- a) AAI's true up submission was analysed, and it was observed that certain Repair & Maintenance expenses such as repair of runway and maintenance of AOCC pertain only to Aeronautical activity, while some such as repair of furniture for terminal building and maintenance of IT hardware are related to the terminal building and airport employees respectively. Hence, a detailed scrutiny of all expenses was undertaken, and as per norms it is proposed to allocate such expenses in the ratio of Gross Fixed Assets/ Terminal Building/ revised Employee ratio depending on the nature of each ledger.
- b) AAI intimated through email dated 10<sup>th</sup> April 2024 that the expenses which was booked in Guwahati Profit Centre in GL code 731409000 (R&M-Other CNS equipment for 40000 segment) were incorrectly allocated to the airport and were actually incurred for CNS and accordingly the same is treated as ANS expenses by the Study.
- c) In the true up submission of AAI, it was noted that for certain tariff years, Equipment and Furniture expenses were not appropriately allocated. In tariff year FY 18-19, the expense related to Furniture & Fixtures for Terminal Building was allocated as 100% Aeronautical. Since, these

items get utilized across the terminal building, allocating it as 100% aeronautical signals that they primarily pertain to aeronautical activities, which is not true. Since the furniture and fixtures are primarily used within the terminal building, the Terminal Area Ratio would be more appropriate for the allocation of this expense. Accordingly, the allocation was revised. The impact of this change is as follows:

**Table 34: Impact on Equipment and Furniture Expenses as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
Equipment and Furniture expenses as per AAI	0.005	0.026	0.034	0.251	(0.00)	<b>0.316</b>	0.00	<b>0.316</b>
Equipment and Furniture expenses as per Study	0.005	0.026	0.031	0.251	(0.00)	<b>0.312</b>	0.00	<b>0.312</b>
<b>Total Impact</b>	<b>(0.000)</b>	<b>(0.000)</b>	<b>(0.004)</b>	<b>(0.00)</b>	<b>(0.00)</b>	<b>(0.004)</b>	<b>0.00</b>	<b>(0.004)</b>

\* Up to the date of COD (October 8, 2021)

- d) The following table summarizes the R&M expenses as submitted by AAI vis-à-vis the expenses derived as per this Study basis the adjustments and revised allocation ratios discussed above.
- e) For expenses related to civil works, electrical works, vehicles, x-ray and baggage identification system and AOCC, the change in expenses is due to the change in the value of the allocation ratios so applied.

**Table 35: Impact on R&M Expenses as per Study**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>R&amp;M Expenses as per AAI</b>								
Civil Works	3.11	7.80	3.31	3.44	2.58	<b>20.24</b>	1.86	<b>22.10</b>
Electrical works	2.25	5.05	7.05	7.70	6.37	<b>28.42</b>	4.13	<b>32.55</b>
Vehicles	0.02	0.15	0.08	0.20	0.07	<b>0.52</b>	0.06	<b>0.58</b>
Equipment & Furniture	0.005	0.026	0.034	0.251	0.000	<b>0.316</b>	0.00	<b>0.316</b>
Electronics & Computer/ IT hardware	0.73	0.38	0.32	0.65	1.11	<b>3.19</b>	0.65	<b>3.84</b>
R&M BOT XBIS LEASE	-	0.14	0.46	(0.02)	-	<b>0.58</b>	-	<b>0.58</b>
AOCC Expenses	1.61	2.01	1.65	1.75	2.14	<b>9.16</b>	0.87	<b>10.03</b>
<b>Total of R&amp;M</b>	<b>7.72</b>	<b>15.56</b>	<b>12.90</b>	<b>13.97</b>	<b>12.26</b>	<b>62.42</b>	<b>7.57</b>	<b>69.98</b>
<b>R&amp;M Expenses as per Study</b>								
Civil Works	3.10	7.75	3.30	3.43	2.56	<b>20.14</b>	1.83	<b>21.97</b>
Electrical works	2.24	5.02	7.00	7.56	6.22	<b>28.04</b>	4.03	<b>32.07</b>
Vehicles	0.02	0.15	0.08	0.20	0.07	<b>0.51</b>	0.06	<b>0.57</b>
Equipment & Furniture	0.005	0.026	0.031	0.251	0.00	<b>0.312</b>	0	<b>0.312</b>
Electronics & Computer/ IT hardware	0.66	0.28	0.31	0.64	1.08	<b>2.96</b>	0.55	<b>3.51</b>
R&M BOT XBIS LEASE	-	0.14	0.46	(0.02)	-	<b>0.57</b>	-	<b>0.57</b>
AOCC Expenses	1.61	2.01	1.65	1.75	2.13	<b>9.15</b>	0.87	<b>10.02</b>
<b>Total of R&amp;M</b>	<b>7.63</b>	<b>15.37</b>	<b>12.82</b>	<b>13.81</b>	<b>12.03</b>	<b>61.66</b>	<b>7.33</b>	<b>68.99</b>
<b>Total Impact</b>	<b>(0.09)</b>	<b>(0.20)</b>	<b>(0.09)</b>	<b>(0.16)</b>	<b>(0.23)</b>	<b>(0.76)</b>	<b>(0.23)</b>	<b>(0.99)</b>

#### 4.7 Impact of reallocation as per Study

4.7.1 The total year-wise adjustment of AAI's Aeronautical O&M expenses as a result of the proposed adjustments and reallocations as discussed in previous sections have been summarised below:

**Table 36: Impact of proposed reallocation of AAI's Aeronautical O&M expenses as per Study**

(₹ in Crores)

O&M expenses	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
Employee benefit / Payroll	(0.02)	(0.02)	(0.00)	(0.05)	(0.07)	<b>(0.16)</b>	(0.02)	<b>(0.18)</b>
Administrative and General	9.60	(5.73)	(7.56)	(7.64)	(5.79)	<b>(17.12)</b>	(23.45)	<b>(40.57)</b>
Repairs & Maintenance	(0.09)	(0.20)	(0.09)	(0.16)	(0.23)	<b>(0.76)</b>	(0.23)	<b>(0.99)</b>
Utilities	(0.01)	(0.01)	(0.02)	(0.04)	(0.02)	<b>(0.09)</b>	(0.01)	<b>(0.10)</b>
Other Outflows	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>	0.00	<b>0.00</b>
<b>Total</b>	<b>9.48</b>	<b>(5.96)</b>	<b>(7.67)</b>	<b>(7.89)</b>	<b>(6.11)</b>	<b>(18.13)</b>	<b>(23.71)</b>	<b>(41.84)</b>

\* Up to COD (October 8, 2021)

4.7.2 Based on the above reclassification and change in allocation ratio, the Study has proposed the revised Aeronautical O&M expenses for the period FY 2016-17 up to COD as summarised in the table below:

**Table 37: O&M expenses after reclassification, change in allocation ratio and rationalization for AAI**

(₹ in Crores)

O&M expenses	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total till FY21	FY 2021-22*	Total till COD
<b>O&amp;M Expenses as per AAI</b>								
Employee benefit / Payroll	16.64	24.02	32.05	32.42	26.69	<b>131.82</b>	14.80	<b>146.62</b>
Administrative and General	13.95	35.45	42.92	59.68	49.81	<b>201.82</b>	48.43	<b>250.25</b>
Repairs & Maintenance	7.72	15.56	12.90	13.97	12.26	<b>62.42</b>	7.57	<b>69.98</b>
Utilities	4.46	5.03	6.05	6.16	5.12	<b>26.81</b>	3.00	<b>29.81</b>
Other Outflows	0.73	0.91	0.78	0.94	0.09	<b>3.44</b>	0.08	<b>3.52</b>
<b>Total</b>	<b>43.49</b>	<b>80.97</b>	<b>94.70</b>	<b>113.17</b>	<b>93.97</b>	<b>426.29</b>	<b>73.88</b>	<b>500.19</b>
<b>O&amp;M Expenses as per Study</b>								
Employee benefit / Payroll	16.62	24.00	32.05	32.37	26.62	<b>131.66</b>	14.78	<b>146.44</b>
Administrative and General	23.56	29.71	35.36	52.05	44.03	<b>184.70</b>	24.99	<b>209.69</b>
Repairs & Maintenance	7.63	15.37	12.82	13.81	12.03	<b>61.66</b>	7.33	<b>68.99</b>
Utilities	4.45	5.02	6.03	6.12	5.10	<b>26.72</b>	2.99	<b>29.71</b>
Other Outflows	0.73	0.91	0.78	0.94	0.09	<b>3.44</b>	0.08	<b>3.52</b>
<b>Total</b>	<b>52.97</b>	<b>75.01</b>	<b>87.03</b>	<b>105.28</b>	<b>87.86</b>	<b>408.16</b>	<b>50.17</b>	<b>458.34</b>
<b>Impact</b>	<b>9.48</b>	<b>(5.96)</b>	<b>(7.67)</b>	<b>(7.89)</b>	<b>(6.11)</b>	<b>(18.13)</b>	<b>(23.71)</b>	<b>(41.84)</b>

\* Up to COD (October 8, 2021)

## **4.8 Summary**

- 4.8.1 The Authority had decided to consider an amount of ₹ 363.8 Crores as the operational and maintenance expenditure in its Tariff Order for SCP of GIAL.
- 4.8.2 As per the submission of AAI, the total Aeronautical O&M expenses for the period from FY2016-17 to FY2020-21 was ₹ 426.29 Crores.
- 4.8.3 For the period April 01, 2021, till October 8, 2021 (COD), the total Aeronautical O&M expenses as submitted by AAI is ₹ 73.88 Crores.
- 4.8.4 The total Aeronautical O&M expenses for the period from FY2016-17 till COD was ₹ 500.19 Crores.
- 4.8.5 Based on the reallocation of the O&M expenses, the downward adjustment in the Aeronautical O&M expenses for the period from FY2016-17 to FY2020-21 is ₹ 18.13 Crores, and for the period from April 01, 2021, till October 8, 2021 (COD) is ₹ 23.71 Crores.
- 4.8.6 The reallocated Aeronautical O&M expenses for the period FY 2016-17 to October 8, 2021, has been determined as ₹ 458.34 Crores.



## 5. ALLOCATION OF OPERATION AND MAINTENANCE EXPENSES FROM POST-COD TILL MARCH 31, 2022

The Concession Agreement dated January 19, 2021, was entered into between AAI and Guwahati International Airport Limited (GIAL) for the Operation, Management, and Development of GIAL for a period of 50 years from the Commercial Operation Date (COD). The COD was achieved on October 8, 2021, in accordance with the terms and conditions mentioned in the Concession Agreement.

Accordingly, GIAL has made the true up submission of O&M expenses for the period from October 8, 2021, till March 31, 2022.

The submission of GIAL includes O&M expenses of ₹ 47.87 Crores from COD to 31<sup>st</sup> March 2022. The details of GIAL submission can be referred at Table 3 (refer Chapter 3). The segregation logic adopted by GIAL for allocation of O&M expenses and the revision in segregation logic suggested as per the Study have been discussed in the following paragraphs.

### 5.1 Allocation of O&M expenses as per GIAL

5.1.1 The segregation of O&M expenses, as submitted by GIAL, has been presented in the table below:

**Table 38: Allocation of O&M expenses as per GIAL submission**

Expense Category	Expense Sub-Category / Description	Expense classification
Manpower expenses	Salary, wages & bonus; Contribution to provident fund; Staff welfare expenses	Aeronautical
	Salary related costs for AAI employees deputed at the Airport for three years from COD	Aeronautical
Utility expenses	Electricity, water and fuel (net of recoveries from concessionaires)	Aeronautical
IT expenses	IT consumables, networking, website maintenance etc.	Aeronautical
Rates and taxes	Property tax, etc.	Aeronautical
Security expenses	Baggage screening, counter drone measures etc.	Aeronautical
Corporate Allocation	Cost incurred centrally by the group holding companies	Aeronautical
Collection Charges on UDF	Other Operating Expense- Collection Charges over UDF	Aeronautical
Administrative expenses	Travelling and Conveyance, Professional and consultancy charges, Auditor Fee and Miscellaneous Fee	Aeronautical
Insurance	Insurance for properties, personnel, third party insurance etc.	Aeronautical
Repairs & Maintenance	Repairs & Maintenance of building, plant and machinery, roads, runways, equipment, etc.	Aeronautical
Others	Manpower cost, Housekeeping & Office expenses	Aeronautical
IE Fee	Fee towards Independent Engineer	Aeronautical

5.1.2 GIAL as part of their true up submission at point 3.6 of their MYTP has stated that it has considered 100% expenses related to regulated asset and services as aeronautical. GIAL has maintained that since in the Shared-Till model, 30% of Non-Aeronautical Revenues are accounted for cross

subsidizing the ARR, therefore, there is no need to apply the allocation ratio whereby, capital and operating expenditure is reduced.

- 5.1.3 The Study observes that GIAL, while undertaking the allocation exercise, has reduced ARR by 30% of Non-Aero Revenue as per Hybrid Till Methodology but, also accounted for 100% of OPEX and Assets as pass through in ARR, as per Single Till Methodology. This is contrary to the approach prescribed by AERA as part of order no. 14/2016-17.

## 5.2 Assessment of allocation ratios for Common expenses

The following ratios have been computed and considered in this Study report for appropriate segregation of Common OPEX between Aeronautical and Non-aeronautical expenses for the period from FY 2016-17 to FY 2020-21.

### 5.2.1 Terminal Building ratio

The detail of terminal area has been sought from GIAL however same has not been provided by GIAL. Following reply was received from GIAL vide email dated November 2<sup>nd</sup>, 2023:

*“Refer Chapter 9 of MYTP. All assets are considered as Aero in line with AERA Guidelines.*

*Airside assets are considered as Aeronautical.*

*Terminal Building is considered as Aeronautical as per AERA Act.”*

Accordingly, the study, similar, to the treatment for AAI, has considered 89.02% terminal area as aeronautical, as was considered by AERA in its order 38/2017-18 for Second Control Period for LGBIA. A detailed basis of such consideration has been provided as part of section 4.8.2 of Asset Allocation Report for Second Control Period of Guwahati Airport.

### 5.2.2 Gross Fixed Assets ratio

Based on the outcome of the *Asset Allocation Study*, the average gross fixed assets ratio for GIAL has been considered as 95.39:4.61. The Aeronautical portion of the Gross Fixed Assets ratio as on March 31, 2022, is lower (95.39%) as compared to AAI (96.01%).

### 5.2.3 Employee Ratio

- i. The department-wise breakup of employees from COD to March 31, 2022, along with the basis of computing the Employee ratio for Guwahati International Airport Limited is summarised in the table below:

**Table 39: Employee details submitted by Guwahati International Airport Limited**

Department	Classification as per GIAL	Select Employees of AAI	GIAL employees	Total Employee Head Count
CAO Office	Aeronautical	1	-	1
Techno Commercial (Procurement)	Aeronautical	-	2	2
Corporate Affairs	Aeronautical	-	1	1
Security	Aeronautical	1	2	3
Legal	Aeronautical	-	1	1
IT	Aeronautical	1	1	2
Terminal & Operation	Aeronautical	16	14	30
Non-Aero Commercial	Aeronautical	1	-	1
Commercial	Aeronautical	-	1	1
HR & Admin	Aeronautical	21	2	23

Department	Classification as per GIAL	Select Employees of AAI	GIAL employees	Total Employee Head Count
Finance	Aeronautical	7	3	10
Engineering & Maintenance	Aeronautical	51	1	52
ARFF	Aeronautical	54	-	54
Environment & Sustainability	Aeronautical	-	1	1
Cargo	Aeronautical	-	1	1
<b>Total</b>		<b>153</b>	<b>30</b>	<b>183</b>

- ii. The cadre wise details of AAI employee have been provided as part of Schedule S of the signed Concession Agreement, further the department wise detail has been provided by GIAL at section 13.2.15 as part of their MYTP submission. Out of total Select Employees of 173 (Schedule S), only 153 were available at the Airport (as on COD).
- iii. Further, it is observed that the GIAL has considered the Manpower expenses of “Select Employees” of AAI as 100% Aeronautical.
- iv. There are 30 employees which have been deployed by GIAL during Post COD period. The details of these 30 employees have been submitted by GIAL as part of a clarification sought under the exercise. The response vide email dated November 2, 2023, is as below:

*As per Concession Agreement, Clause 6.5.3. AAI employees with designation over DGM and above have been transferred out by AAI and they are not associated with the Airport after 3 months from COD. Accordingly, Airport Director and all HoDs have been transferred out and are not working at Guwahati Airport. GIAL needed to fill in the said critical positions along with their support staff for smooth functioning of the Airport.*

*Further, there were many positions which were not available at Guwahati Airport during AAI period but are necessary functioning of the Airport such as Techno Commercial (procurement), Legal, Environment, Corporate Affairs, Corporate Branding, Safety, Quality, Sustainability, Cargo etc.*

We have accordingly allocated department wise employee and determined employee allocation ratio for GIAL.

- v. In conclusion, we understand that GIAL requires these employees to meet the operational requirement as mandated by the Concession Agreement. GIAL also needs to create its own airport management team as AAI employees are deployed for limited period. Accordingly, in view of GIAL submission we consider that the employee deployment for airport operations is reasonable.
- vi. The department-wise Employee Headcount ratio as per the Study is summarised in the table shown below:

**Table 40: Employee Ratio of the Airport Operator as per Study**

Department	Classification	Select Employees of AAI	GIAL employees	Total Employee Head Count
CAO Office	Aeronautical	1	-	1
Techno Commercial (Procurement)	Common	-	2	2
Corporate Affairs	Common	-	1	1
Security	Aeronautical	1	2	3
Legal	Common	-	1	1
IT	Common	1	1	2

Department	Classification	Select Employees of AAI	GIAL employees	Total Employee Head Count
Terminal & Operation	Aeronautical	16	14	30
Non-Aero Commercial	Non-Aeronautical	1	-	1
Commercial	Non-Aeronautical	-	1	1
HR & Admin	Common	21	2	23
Finance	Common	7	3	10
Engineering & Maintenance	Aeronautical	51	1	52
ARFF	Aeronautical	54	-	54
Environment & Sustainability	Aeronautical	-	1	1
Cargo	Aeronautical	-	1	1
<b>Total</b>		<b>153</b>	<b>30</b>	<b>183</b>
Direct Aeronautical employees		123	19	142
Direct Non-Aeronautical employees		1	1	2
Common employees		29	10	39
<b>Total</b>		<b>153</b>	<b>30</b>	<b>183</b>
<b>Common employee's allocation</b>				
Allocation ratio		99.19:0.81	95:5	
Common Aeronautical employees		29	9	38
Common Non-Aeronautical employees		0	1	1
<b>Total Common employees</b>		<b>29.00</b>	<b>10.00</b>	<b>39.00</b>
<b>Head Count after allocation of Common employees</b>				
Total Aeronautical employees		152	28	180
Total Non-Aeronautical employees		1	2	3
Total employees		<b>153</b>	<b>30</b>	<b>183</b>
<b>Employee Ratio</b>		<b>99.19:0.81</b>	<b>95:5</b>	<b>98.50:1.50</b>

- vii. Based on the above table it is proposed that:
- AAI Employee Ratio will be 99.19:0.81 (Aeronautical : Non-Aeronautical),
  - GIAL Employee Ratio will be 95:5 (Aeronautical : Non-Aeronautical) and
  - Overall Employee Ratio is 98.50:1.50.
- viii. Further, the Study proposes to use the AAI Employee Ratio to allocate AAI Manpower Cost, GIAL Employee ratio to allocate GIAL manpower cost. Also, the GIAL Employee Ratio is proposed to be used to allocate certain common expenses such as IT expenses and corporate cost allocation. A similar allocation methodology has also been considered in case of other similar airports.

#### 5.2.4 Electricity ratio

- In past the utility expenses comprised of utility requirement at Airport, Cargo and ANS facilities. The utility expense used to be allocated under these heads. A clarification was sought from GIAL to provide allocation of utility expense to these heads, if any. The following response was received from GIAL vide email dated 26<sup>th</sup> October 2023:

*“Utilities expenses are net of recoveries.*

*Expense related to Utilities pertains only to Airport and excludes ANS and Cargo facilities.”*

Based on GIAL's response above, it is understood that the electricity expenses pertain only to airport and is net of recoveries, hence no further allocation of these costs would be required.

### 5.3 Allocation of O&M expenses as per Study

- 5.3.1 As per GIAL submission 100% operating expenditure has been considered as Aeronautical. Since this is against the AERA tariff methodology we have sought various clarification from GIAL which were required to calculate allocation ratio such as terminal area. GIAL has reiterated that as per AERA guidelines Airside assets are considered as Aeronautical and Terminal Building is considered as Aeronautical as per AERA Act.
- 5.3.2 Considering the continuous refusal of GIAL in adopting allocation methodology as prescribed by AERA Act and guidelines the study followed allocation methodology as prescribed at section 0 of this Study i.e. Principle for allocation of expenses.
- 5.3.3 In accordance with the CA, GIAL has to appoint an Independent Engineer. As per Clause 24.3.1, the cost associated with such Independent Engineer shall be considered as pass-through for determination of Aeronautical Charges by the Regulator. Relevant extract of the CA has been reproduced below:
- Clause 24.3.1*
- The remuneration, cost and expenses of the Independent Engineer shall be paid by the Authority, and all such remuneration, cost and expenses shall be reimbursed by the Concessionaire to the Authority within 15 (fifteen) days of receiving a statement of expenditure from the Authority. Any amounts paid to the Independent Engineer shall be considered for a pass-through for the determination of the Aeronautical Charges by the Regulator.*
- 5.3.4 GIAL vide email dated November 2, 2023, informed that “There was some wrong classification in the books of account whereby Corporate Support Service of Rs 0.77 Crore is accounted in Professional Services”, resulting in a variance in the administrative expenses submitted by GIAL for the post COD period up to March 31 2022. The reconciliation of the above expense from ₹ 4.67 Crore to ₹ 3.68 Crore has been factored in the Study.
- 5.3.5 Further, the expenses as submitted by GIAL have been evaluated on case-to-case basis and considered as pass through as aeronautical expense based on its relevance as per AERA Act and guidelines.

**Table 41: Allocation of O&M expenses of GIAL as per Study**

Expense Category	Amount (₹ Crores)	Expense Classification As per GIAL	Expense Classification as per the Study	Allocation Ratio (Aero : Non-Aero)
Manpower expenses - AAI employees	14.19	Aeronautical	Common	Employee Ratio- AAI (99.19:00.81)
Manpower expenses - GIAL employees	4.72	Aeronautical	Common	Employee Ratio- GIAL (95:5)
Utility expenses	2.62	Aeronautical	Aeronautical	100%
IT expenses	1.49	Aeronautical	Common	Employee Ratio- GIAL (95:5)
Rates & taxes	0.32	Aeronautical	Common	Gross Asset Ratio (95.39:4.61)
Security expenses	1.37	Aeronautical	Aeronautical	100%
Corporate Allocation	3.47	Aeronautical	Common	Employee Ratio- GIAL (95:5)

Expense Category	Amount (₹ Crores)	Expense Classification As per GIAL	Expense Classification as per the Study	Allocation Ratio (Aero : Non-Aero)
Administrative Expenses - Collection Charges on UDF	0.09	Aeronautical	Aeronautical	100%
Administrative Expenses - Others	4.37	Aeronautical	Common	Appropriate Ratio as per individual line item
Insurance	0.99	Aeronautical	Common	Gross Asset Ratio (95.39:4.61)
R&M	9.71	Aeronautical	Common	Appropriate Ratio as per individual line item
Others	2.83	Aeronautical	Common	Terminal Building Ratio (89:02:10.98)
Independent Engineer Fees	1.69	Aeronautical	Aeronautical	100%
<b>Total</b>	<b>47.87</b>			

## 5.4 Reallocation and Adjustment of Common O&M expenses of GIAL as per Study

### 5.4.1 Manpower expenses

- i. GIAL has claimed an amount of ₹ 18.91 Crores towards Aeronautical Manpower expenses which includes ₹14.19 Crores towards cost of deputed employees (i.e., “Select Employees”) of AAI and ₹ 4.72 Crores towards cost of employees of GIAL.
- ii. It is observed that, the cost of “Select Employees” of AAI deputed at GIAL are being reimbursed to AAI by GIAL on monthly basis and therefore included under the Manpower expenses claimed by GIAL. It is pertinent to note here that, as per Clause 6.5 read with Clause 28.4.3 of the Concession Agreement entered between AAI and GIAL, the cost of “Select Employees” (deputed employees) of AAI have been considered eligible for pass-through in the determination of Aeronautical charges. Based on the same, the cost of deputed employees of AAI claimed by GIAL is considered an allowable expense, as per the Study.
- iii. However, as already mentioned in paragraph 5.2.3 iv above, such costs have been considered as entirely Aeronautical expenses by GIAL which the Study proposes to reallocate in the AAI Employee Ratio (99.19:0.81), thereby resulting in a downward adjustment of ₹ 0.11 Crores.
- iv. Further, it is observed that the total manpower expenses of the employees of GIAL have been considered as 100% Aeronautical. However, it is proposed as per the Study to allocate the revised total manpower expenses of GIAL based on GIAL Employee Ratio of 95:5 determined as per Table 40. The impact of such difference is downward adjustment of ₹ 0.24 Crores.
- v. The details of the total impact of revision in Aeronautical Manpower expenses amounting to ₹ 0.35 Crores are shown in the table below:

**Table 42: Impact of revision in Aeronautical Manpower expenses of GIAL**

(₹ in Crores)

Particulars	Manpower expenses – Select Employees of AAI			Manpower expenses – GIAL employees		Total
	Classification	Allocation %	Manpower Expenses	Allocation %	Manpower Expenses	Manpower Expenses
As per GIAL (A)	Aeronautical	100.00%	<b>14.19</b>	100.00%	<b>4.72</b>	<b>18.91</b>
Revision as per the Study (B)	Common	99.19%	<b>14.08</b>	95%	<b>4.48</b>	<b>18.55</b>
<b>Impact (C =B - A)</b>			<b>(0.11)</b>		<b>(0.24)</b>	<b>(0.35)</b>

#### 5.4.2 Corporate Allocation Cost

- i. It is observed that the Aeronautical Corporate Allocation Cost of ₹ 3.47 Crores had been incurred by GIAL towards Corporate Support Services received from the Companies, namely, Adani Enterprises Limited (AEL) and Adani Airports Holding Limited (AAHL) for the period from Post-COD till March 31, 2022. However, subsequent to this, GIAL vide email dated November 2, 2023, informed that:

*“There was some wrong classification in the books of account whereby Corporate Support Service of Rs 0.77 Crore is accounted in Professional Services). For regulatory purposes we can consider it as Corporate Support Services.*

*The correct Corporate Support Service Fees is Rs. 4.24 Crore.”*

This Corporate Allocation cost includes ₹ 2.07 Crore from AAHL and ₹ 2.17 Crore from AEL.

- ii. Further it is observed that, AEL provides various strategic functions/activities like corporate finance, legal, central procurement, green initiative, ESG, Information technology, taxation, management assurance, internal audit, shared service for financial transactions. human resource management, etc., and also includes various leadership functions. AAHL through its corporate structure, provides expertise and specialist domain knowledge in Airports Operation, Airside Management, Master Planning, Designing, Airport Development, Airport Regulatory, Human Resources, Transition Management, Hospitality, Customer management, Finance Management, Legal expertise, Cargo Development and management, Airline Marketing, Retail, Commercial, Space Leasing, Non-Aeronautical etc.
- iii. AAHL had hired independent consultant of repute to undertake allocation study and opined that support services provided at consolidated level have benefit of leveraging best practices, centralised monitoring and control and efficiencies and economies of scale.
- iv. AEL and AAHL incur costs at the corporate level to provide these services and support to various Group Companies (including Airports) and Airport companies. As advised by the independent consultant these costs (except shareholders services and non-Aeronautical services) are recovered by AEL and AAHL through a pre-determined, appropriate allocation method.
- v. As per the independent study got conducted by AAHL such corporate cost allocation practice is adopted by various large corporates including Aviation companies in India and overseas. We have also observed that the consolidation of key services at corporate level is followed by various corporates and passed on of cost of such services to various group companies. It is followed by other private airport operators’ holding entities, such as GMR Infrastructure Limited (GIL) and GMR Airports Limited (GAL), which provide corporate administration services to DIAL, GHIAL and GGIAL, and their costs are allocated based on suitable

drivers. The AAI also allocates its Central Head Quarters (CHQ) / Regional Head Quarters (RHQ) costs to various airports based on appropriate drivers.

- vi. In respect of GIAL for the FY 2021-22, being the first year of operations post-COD (i.e., approximately 6 months) GIAL has submitted that the Corporate Cost is allocated based on applicable costs or revenue drivers such as Ratio of Number of Employees of a SPV to Total Adani Group Employees, Ratio of Per Pax Revenue of SPV to total Per Pax Revenue, Ratio of Debt raised for a SPV to total Debt raised for Airport Group, Ratio of Turnover of a SPV to Total Group Turnover etc. This practice is in line with the methodology followed by AAI for the allocation of CHQ / RHQ costs for its airports and accordingly this Study considers the same to be appropriate.
- vii. GIAL has considered corporate cost allocation as 100% aeronautical. However, as the services provided by AAHL & AEL are mainly provided in the nature of specialised resources and knowledge and it benefits the whole airport ecosystem, the cost needs to be allocated in the same ratio as the employee cost of GIAL manpower cost has been allocated. Accordingly, GIAL employee ratio has been considered to allocate this cost in this Study. As per Table 40 above the employee ratio of GIAL is 95% aeronautical and 5% Non-Aeronautical. Further, it is noted that the Corporate Allocation Cost claimed by GIAL includes an amount of ₹ 0.03 Crores allocated towards In-house Legal department, which is in addition to the cost of one (01) employee of Legal department, already considered under the manpower expenses of GIAL (refer Table 40) and is not justified. Hence, the Study proposes to exclude ₹ 0.03 Crores from the Corporate Allocation cost submitted by GIAL. The impact of such difference is a decrease of ₹ 0.24 Crores as shown in the table below:

**Table 43: Impact of revision in Corporate Allocation Cost of GIAL**

(₹ in Crores)

Particulars	Allocation	Allocation ratio	Aeronautical expenses
As per GIAL	Aeronautical	100%	4.24
Less: Legal Expenses of AEL & AAHL			(0.03)
Net Corporate Cost			<b>4.21</b>
Corporate Cost	Aeronautical	95%	4.00
Corporate Cost	Non-Aeronautical	5%	0.21
<b>Adjustment in Aeronautical Cost</b>			<b>(0.24)</b>

#### 5.4.3 Administrative expenses

- i. GIAL has submitted administrative expenses of ₹ 3.58 Crores incurred towards Professional & Consultancy, Travelling & Conveyance, Auditing and Miscellaneous expenses.
- ii. Administrative expense includes expenses towards Professional Consultancy, Travelling and conveyance, Audit fees, Miscellaneous expenses, Bank Charges for Bank Guarantee, Internal audit, airport operation, passenger profiling survey, training, and recruitment etc. GIAL in its submission has considered these expenses as 100% Aeronautical.
- iii. Hence, it is proposed to reallocate the same based on Gross Fixed Asset ratio (95.39:4.61) / revised Employee Head Count Ratio (95:5) / revised Terminal Building ratio (89.02:10.98) depending upon the nature of expenses. The AOCC services are considered as Aeronautical, in line with the ratio allocation followed for AAI up to COD. The impact of such reallocation is a decrease of ₹ 0.16 Crores and details of the same are shown in the table below:



**Table 44: Impact of revision in Aeronautical Administrative expenses of GIAL***(₹ in Crores)*

Particular	Amount	Allocation	Allocation %	Aeronautical Cost
<b>Professional Consultancy</b>				
O&M Support	0.45	Common-TB	89.02%	0.40
Manpower for bird and animal hazard and AOCC	0.34	Aeronautical	100%	0.34
ASQ Survey, Hiring of Rubber removal machine	0.33	Aeronautical	100%	0.33
ACI membership	0.18	Aeronautical	100%	0.18
CRM tool	0.12	Common-ER	95%	0.11
Internal audit fees	0.10	Common-GB	95.39%	0.09
Outsourced manpower	0.09	Common-ER	95%	0.09
Environment monitoring work	0.09	Common-TB	89.02%	0.08
OLS survey	0.08	Aeronautical	100%	0.08
IT hardware	0.08	Common-ER	95%	0.08
Service academy	0.06	Common-ER	95%	0.06
Facility management	0.06	Common-TB	89.02%	0.05
Fire & Safety Expenses	0.04	Common-TB	89.02%	0.04
HR Services	0.04	Common-ER	95%	0.04
Printing & Stationery Expenses	0.03	Common-GB	95.39%	0.03
<b>Sub Total</b>	<b>2.08</b>			<b>1.98</b>
<b>Travel and Conveyance</b>				
Travelling Expenses	0.11	Common-ER	95%	0.10
Vehicle hiring	0.04	Aeronautical	100%	0.04
<b>Sub Total</b>	<b>0.15</b>			<b>0.14</b>
<b>Misc. Expenses</b>				
Various provisions for year end	0.81	Common-GB	95.39%	0.77
<b>Sub Total</b>	<b>0.81</b>			<b>0.77</b>
<b>Foreign Exchange Loss</b>				
Exch Rate Diff on Customer/Vendor	0.03	Common-GB	95.39%	0.03
<b>Sub Total</b>	<b>0.03</b>			<b>0.03</b>
<b>Other Expenses</b>				
Others	0.52	Common-GB	95.39%	0.49
<b>Sub Total</b>	<b>0.52</b>			<b>0.49</b>
<b>Total</b>	<b>3.58</b>			<b>3.42</b>
<b>Impact</b>				<b>(0.16)</b>

**5.4.4 Repair & Maintenance expenses**

- i. GIAL has incurred an amount of ₹ 9.71 Crores towards Repairs & Maintenance which includes maintenance of various assets such as Terminal Building, Baggage Handling System, AGL lighting, CISF, Airside management including bird chaser, electrical, HVAC, elevator & escalator etc. Most of the maintenance service providers during the period under true up have been carried forward from AAI contracts.
- ii. GIAL has considered R&M expense as 100% Aeronautical. However, as per AERA guidelines only expense which are required to provide Aeronautical Service can be allowed as pass through in tariff. Accordingly, the R&M expense is also required to be allocated as per applicable allocation ratio.

- iii. Following are the details of R&M expense submitted by GIAL and the allocation exercise undertaken thereon. The rationalization of the Repair and Maintenance costs of GIAL has led to an impact of ₹ 0.42 Crores as shown in the table below:

**Table 45: Impact of revision in Aeronautical R&M expenses of GIAL**

(₹ in Crores)

Area of Maintenance/ Services	Amount	Allocation	Allocation %	Aeronautical Cost
<b>Airside Electrical expenses</b>				
O&M of E&M installations	2.01	Aeronautical	100%	2.01
AMC of CCR and ALCMS system	0.09	Aeronautical	100%	0.09
Watch and ward of LED SPOL system	0.05	Aeronautical	100%	0.05
AMC of Elevators and escalators	0.06	Aeronautical	100%	0.06
<b>Sub Total</b>	<b>2.21</b>			<b>2.21</b>
<b>Airside Civil works</b>				
Runway, taxi and apron marking	1.34	Aeronautical	100%	1.34
R&M of CNS ATM, TB and operational area	0.18	Aeronautical	100%	0.18
<b>Sub Total</b>	<b>1.52</b>			<b>1.52</b>
<b>Terminal Electrical expenses</b>				
AMC of AC plants	0.73	Common-TB	89.02%	0.65
AMC of DG sets	0.11	Common-TB	89.02%	0.10
AMC of a/c units and water coolers	0.07	Common-TB	89.02%	0.06
<b>Sub Total</b>	<b>0.91</b>			<b>0.81</b>
<b>Terminal side Civil works</b>				
Terminal improvement	0.52	Common-TB	89.02%	0.46
Labour supply	0.30	Common-TB	89.02%	0.27
Labour supply	0.24	Common-TB	89.02%	0.21
Terminal improvement	0.14	Common-TB	89.02%	0.12
AMC of Tyre killer and bollard system	0.10	Common-TB	89.02%	0.09
Terminal improvement	0.08	Common-TB	89.02%	0.07
Terminal improvement	0.06	Common-TB	89.02%	0.06
Terminal improvement	0.06	Common-TB	89.02%	0.05
Fencing of CISF colony	0.06	Common-TB	89.02%	0.05
Waterproofing work	0.05	Common-TB	89.02%	0.05
<b>Sub Total</b>	<b>1.61</b>			<b>1.43</b>
<b>Terminal Building – Plant and Machinery</b>				
ACM of VRV system	0.15	Common-TB	89.02%	0.13
AMC of fire alarm and hydrant system	0.07	Common-TB	89.02%	0.06
<b>Sub Total</b>	<b>0.22</b>			<b>0.19</b>
<b>PBB and AVDG System</b>				
Provision of PBB and VDGS/AVDGS system	0.39	Aeronautical	100%	0.39
Provision of PBB and VDGS/AVDGS system	0.07	Aeronautical	100%	0.07

Area of Maintenance/ Services	Amount	Allocation	Allocation %	Aeronautical Cost
<b>Sub Total</b>	<b>0.47</b>			<b>0.47</b>
<b>Baggage Conveyor system</b>				
O&M of UV based baggage conveyor system	0.14	Aeronautical	100%	0.14
<b>Sub Total</b>	<b>0.14</b>			<b>0.14</b>
<b>Vehicles for Aeronautical and Fire Tender</b>				
AMC of CFTs	1.43	Aeronautical	100%	1.43
<b>Sub Total</b>	<b>1.43</b>			<b>1.43</b>
<b>Vehicles for Common use</b>				
Operation of AAI/GIAL vehicles	0.06	Common-ER	95%	0.06
<b>Sub Total</b>	<b>0.06</b>			<b>0.06</b>
<b>STP and Drainage</b>				
Construction of STP	0.07	Common-TB	89.02%	0.07
<b>Sub Total</b>	<b>0.07</b>			<b>0.07</b>
<b>Others</b>				
Consumption Of Spares	0.49	Common-TB	89.02%	0.44
IT manpower support	0.13	Common-ER	95%	0.13
Others	0.45	Common-TB	89.02%	0.40
<b>Sub Total</b>	<b>1.07</b>			<b>0.96</b>
<b>Total</b>	<b>9.71</b>			<b>9.29</b>
<b>Impact</b>				<b>(0.42)</b>

#### 5.4.5 Other Operating expenses

- i. It is observed that the Other Operating expenses totalling to ₹ 7.59 Crores includes amount incurred towards IT expenses, Rates & Taxes, Security expenses, Collection Charges, Insurance, Outsource manpower, Housekeeping, Bank & Finance Charges.
- ii. GIAL has considered Other Operating expense as 100% Aeronautical. However, as per AERA guidelines only expense which are required to provide Aeronautical Service can be allowed as pass through in tariff. Accordingly, the Other Operating expenses is also required to be allocated as per applicable allocation ratio.
- iii. Following are the detail of Other Operating expenses submitted by GIAL and the allocation exercise undertaken thereon. The impact of such difference due to rationalization is ₹ 0.45 Crores as shown in the table below:

**Table 46: Impact of revision in Other Operating Expenses of GIAL**

(₹ in Crores)

Particular	Amount	Allocation	Allocation %	Aeronautical Cost
IT expenses	1.49	Common-GIAL-ER	95%	1.41
Rates & taxes	0.32	Common-GB	95.39%	0.31
Security expenses- Screeners, BHS, Airport Security etc.	1.37	Aeronautical	100%	1.37
Administrative Expenses - Collection Charges on UDF	0.09	Aeronautical	100%	0.09
Insurance	0.99	Common-GB	95.39%	0.94
Others	2.83	Common-TB	89.02%	2.52
<b>Total</b>	<b>7.09</b>			<b>6.64</b>
<b>Impact</b>				<b>(0.45)</b>

## 5.5 Impact of Reallocation as per Study

5.5.1 The table below provides a summary of submission of GIAL, revision of OPEX as part of this study and net impact for the period 9<sup>th</sup> October 2021 to 31<sup>st</sup> March 2022:

**Table 47: Impact of proposed reallocation of GIAL Aeronautical O&M expenses**

(₹ in Crores)

Particular	GIAL Submission			Study		Net Impact
	Total Expense	Aero %	Aero Expense	Allocation Basis	Aero Expense	
Manpower expenses - AAI employees	14.19	100%	14.19	Common (ER-AAI)	14.08	(0.11)
Manpower expenses - GIAL employees	4.72	100%	4.72	Common (ER-GIAL)	4.48	(0.24)
Utility expenses	2.62	100%	2.62	Aeronautical	2.62	0.00
IT expenses	1.49	100%	1.49	Common (ER-GIAL)	1.41	(0.08)
Rates & taxes	0.32	100%	0.32	Common (GB)	0.31	(0.01)
Security expenses	1.37	100%	1.37	Aeronautical	1.37	0.00
Corporate Allocation	4.24	100%	4.24	Common (ER-GIAL) Less: Legal Expenses	4.00	(0.24)
Administrative Expenses - Collection Charges on UDF	0.09	100%	0.09	Aeronautical	0.09	0.00
Administrative Expenses - Others	3.58	100%	3.58	Common (TB/ER/GB)	3.42	(0.16)
Insurance	0.99	100%	0.99	Common (GB)	0.94	(0.05)
R&M	9.71	100%	9.71	Common (TB/ER/GB)	9.29	(0.42)
Others	2.83	100%	2.83	Common (TB)	2.52	(0.31)
Independent Engineer Fees	1.69	100%	1.69	Aeronautical	1.69	0.00
<b>Total</b>	<b>47.87</b>		<b>47.87</b>		<b>46.22</b>	<b>(1.65)</b>

\* TB – Terminal Building Ratio

ER – Employee Ratio

GB – Gross Block Ratio

## 5.6 Summary

5.6.1 As per the submission of GIAL the total Aeronautical O&M expenses for the period from COD to March 31, 2022, was ₹ 47.87 Crores (refer Table 47).

5.6.2 Based on the reallocation of the O&M expenses, the downward adjustment in the Aeronautical O&M expenses for the aforesaid period is ₹ 1.65 Crores (refer Table 47) and the reallocated Aeronautical O&M expenses (prior to rationalisation) for the period from COD to March 31, 2022 has been determined as ₹ 46.22 Crores (refer Table 47).

## 6. INTERNAL BENCHMARKING

### 6.1 Background

6.1.1 The Internal Benchmarking of LGBIA O&M expenses involves analysis of trends in the Aeronautical O&M expenses:

- For the period from FY 2011-12 to FY 2020-21 (CAGR comparison of Major O&M expenses for the First Control Period with Second Control Period up to FY 2020-21 on AAI's True up submission and correlation of each of the Major O&M expenses with Passenger traffic and ATM during the same period.
- FY 2020-21 has been excluded from this CAGR analysis since the airport operations and passenger traffic and ATM were significantly impacted by COVID-19 pandemic. However, FY 2020-21 data has been included in certain tables and charts in this Chapter for the purpose of complete presentation of information.

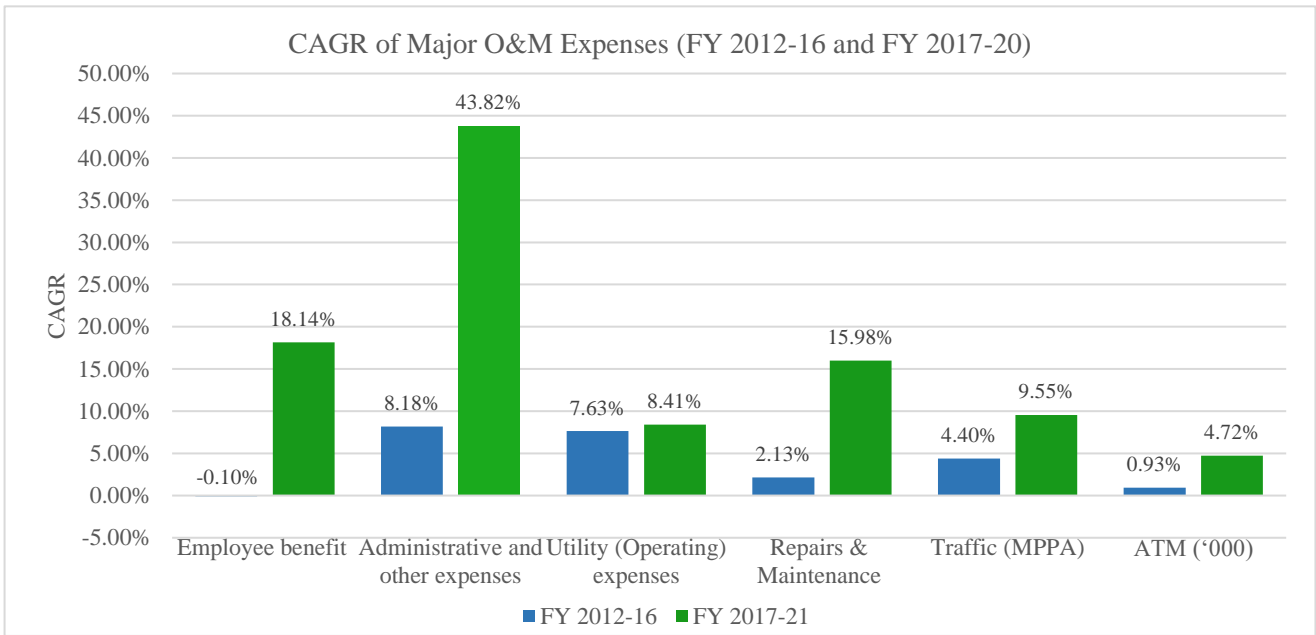
### 6.2 Trend analysis of Major Aeronautical O&M expenses as per Study

6.2.1 The trend analysis of CAGR of Major O&M expenses, namely, Employee benefit expenses, Administrative expenses, Operating expenses, and Repairs & Maintenance for the period FY 2011-12 to 2015-16 (i.e., First Control period) as compared with FY 2016-17 to FY 2019-20 (i.e., Second Control period without considering Covid year i.e., FY 2020-21) in correlation with per PAX and per ATM for the same period has been presented in the tables and corresponding charts below:

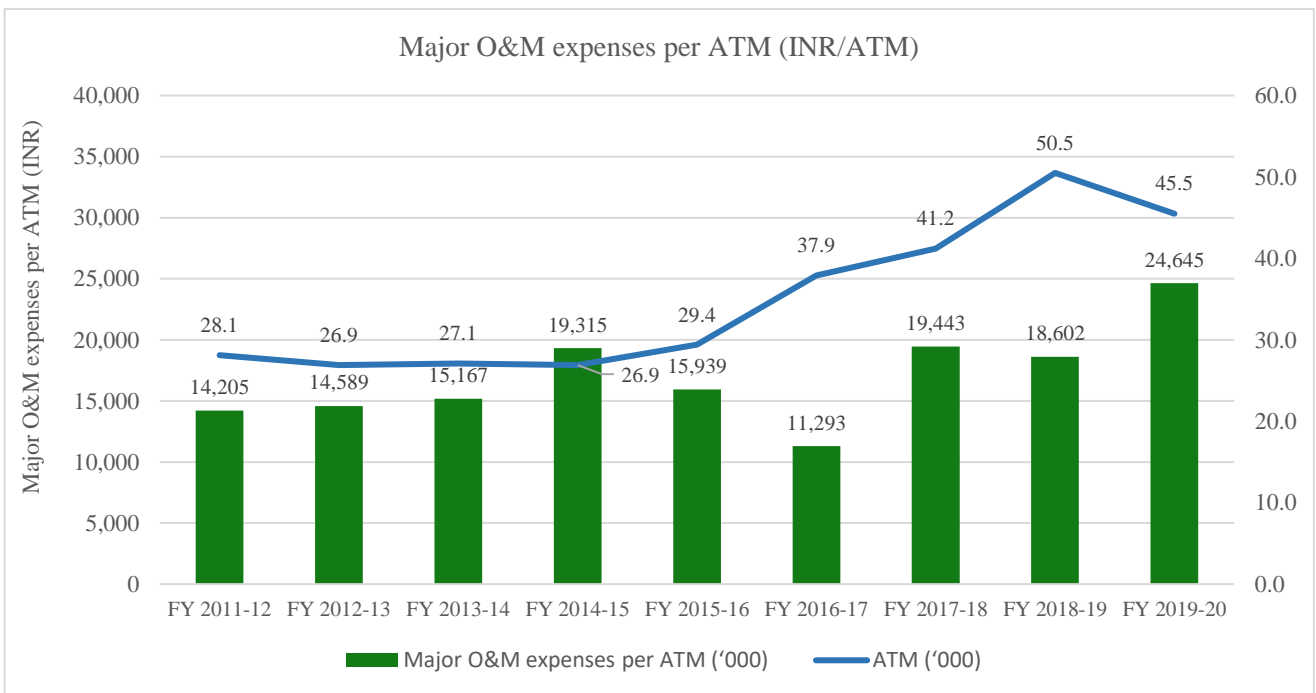
**Table 48: CAGR of Passenger Traffic, ATM and O&M expenses of LGBIA**

(₹ in Crores)											
Major O&M expenses	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	CAGR (5 years)	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	CAGR (4 years)
Employee/ Payroll	20.80	21.80	20.20	23.00	20.70	-0.10%	16.64	24.02	32.05	32.42	18.14%
Admin. & General	11.00	11.10	15.00	20.60	16.30	8.18%	13.95	35.45	42.92	59.68	43.82%
Utilities	2.70	2.80	2.60	3.90	3.90	7.63%	4.46	5.03	6.05	6.16	8.41%
Repairs & Maintenance	5.40	3.60	3.30	4.40	6.00	2.13%	7.72	15.56	12.90	13.97	15.98%
<b>Total</b>	<b>39.90</b>	<b>39.30</b>	<b>41.10</b>	<b>51.90</b>	<b>46.90</b>	<b>3.29%</b>	<b>42.77</b>	<b>80.05</b>	<b>93.92</b>	<b>112.23</b>	<b>27.27%</b>
Traffic (PPA)	2,244,684	2,076,938	2,197,633	2,233,601	2,784,315	4.40%	3,789,656	4,668,053	5,745,628	5,457,449	9.55%
ATMs	28,088	26,938	27,098	26,871	29,425	0.93%	37,873	41,172	50,488	45,539	4.72%
(₹ in Rupees)											
Major O&M expenses per PAX (in ₹)	178	189	187	232	168	-1.07%	113	171	163	206	16.18%
Major O&M expenses per ATM (in ₹)	14,205	14,589	15,167	19,315	15,939	2.33%	11,293	19,443	18,602	24,645	21.54%

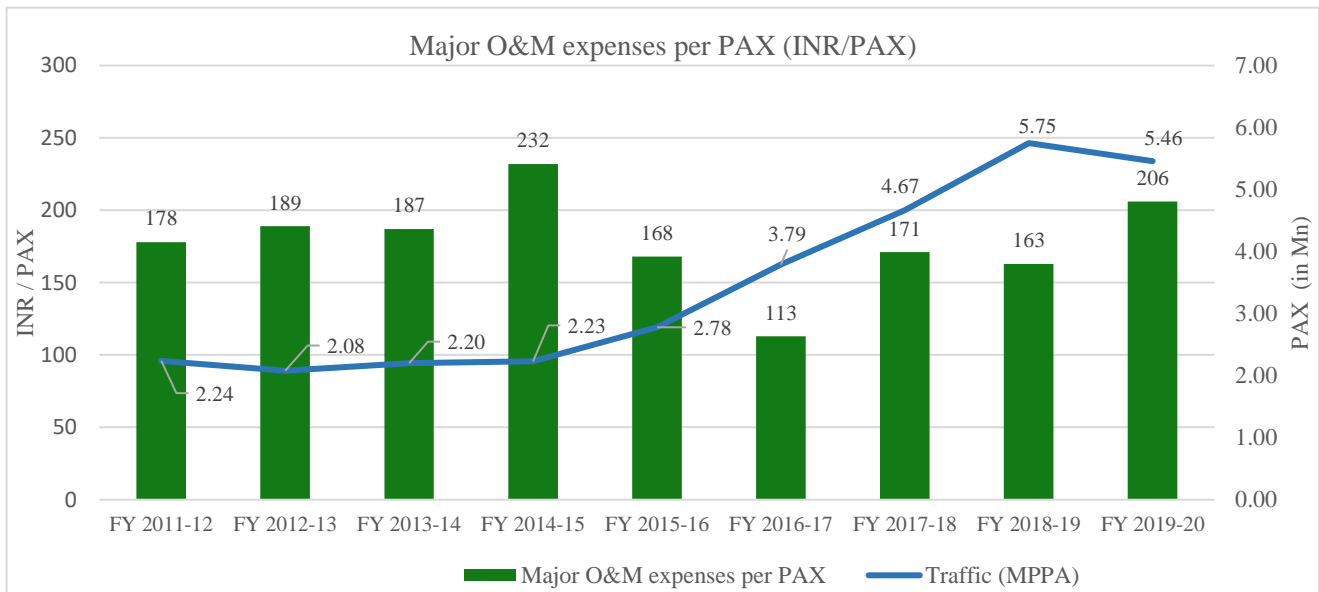
**Figure 6: CAGR of Major O&M expenses for the periods (FY12-16 & FY17-20)**



**Figure 7: Analysis of Major O&M expenses per ATM (FY12 - FY20)**



**Figure 8: Analysis of Major O&M expenses per PAX (FY12 - FY20)**



6.2.2 It can be observed from Table 48, Figure 6, Figure 7, and Figure 8 above that, in general the CAGR of Major O&M expenses grew at a rate higher than the respective growth in Traffic of PAX and ATM, for both the First and Second Control Periods. Further, it is observed that the CAGR of Second Control Period (27.27%) is significantly higher than the CAGR of First Control Period (3.29%).

6.2.3 In respect of the First Control Period, i.e., from FY 2011-12 to FY 2015-16, O&M expenses grew at a lower CAGR of 3.29% in comparison with PAX growth of 4.4% but higher than ATM growth of 0.93% during the same period (refer Table 48).

6.2.4 In respect of the Second Control Period i.e., from FY 2016-17 to FY 2019-20 (excluding COVID year 2020-21), major O&M expenses grew at a higher CAGR of 27.27% in comparison with PAX growth of 9.55% and ATM growth of 4.72% during the same period (refer Table 48).

6.2.5 Further it can be seen that, the CAGR of Utility expenses in the Second Control Period is slightly higher than the CAGR in the First Control Period.

### 6.3 Inflation-adjusted analysis of Major O&M expenses as per Study

6.3.1 The actual CAGR of the major components of Aeronautical O&M expenses, including on a per PAX and per ATM-basis, for the period from FY 2016-17 to FY 2019-20 (as per Table 48) have also been compared with the Wholesale Price Index (WPI)-based inflation adjusted expenses, which is presented in the table below. While FY 2016-17 has been considered as the base year, the actual expenses for years from FY 2017-18 to FY 2019-20 (as per Table 48) have been adjusted downward by the WPI inflation factor to reflect the real increase in the expenses. Other outflows /expenses have been excluded for this analysis.

**Table 49: Analysis of WPI Inflation-adjusted O&M expenses of LGBIA***(₹ in Crores)*

Major O&M expenses	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Total	CAGR
WPI*	<b>100</b>	<b>102.96</b>	<b>107.35</b>	<b>109.14</b>		
Employee benefit expenses	16.640	24.020	32.053	32.412	105.122	18.14%
Administrative and other expenses	13.953	35.445	42.916	59.689	152.002	43.82%
Utility expenses	4.456	5.031	6.045	6.156	21.687	8.41%
Repairs & Maintenance	7.723	15.564	12.904	13.966	50.156	15.98%
<b>Per PAX (₹-Crores)</b>						
Employee benefit expenses	0.023	0.018	0.018	0.017	0.076	-7.28%
Administrative and other expenses	0.012	0.012	0.013	0.009	0.046	-5.92%
Utility expenses	0.085	0.088	0.093	0.089	0.355	1.04%
Repairs & Maintenance	0.049	0.028	0.044	0.039	0.160	-5.53%
<b>Per ATM (₹-Thousands)</b>						
Employee benefit expenses	2,276	1,617	1,549	1,405	6,848	-11.36%
Administrative and other expenses	1,166	1,096	1,157	763	4,182	-10.07%
Utility expenses	8,499	7,720	8,215	7,398	31,832	-3.41%
Repairs & Maintenance	4,904	2,495	3,848	3,261	14,509	-9.70%

\* Source: Office of The Economic Adviser, Government of India (<https://eaindustry.nic.in>)

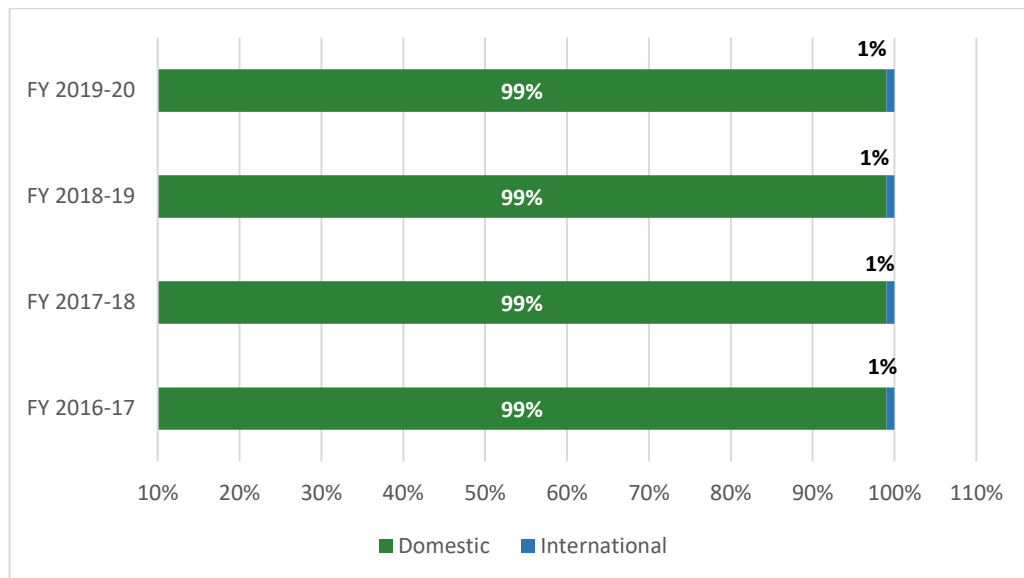
#### 6.4 Proportion of Domestic and International Passenger Traffic

- 6.4.1 The profile of passenger traffic at LGBIA was also analysed as part of Internal Benchmarking as per this Study report. O&M expenses related to Domestic passenger movement such as utilities and maintenance costs, are generally lower, on account of lesser time spent at terminal building and passenger hold area, and higher gate utilisation. Comparatively, the international passenger movement involves relatively higher cost on account of longer time spent in terminal building and passenger hold area and lower gate capacity utilisation. Therefore, it is expected that the proportion of Domestic and International passengers would impact the trend in Operating expenses, which relate to costs of utilities and upkeep of the terminal building.
- 6.4.2 The proportion of Domestic and International passengers for the period from FY 2016-17 to FY 2020-21, along with the per PAX and per ATM inflation-adjusted Operating expenses are summarised in the table below:



**Table 50: Pax Profile and per Pax Utility Expenses of LGBIA**

Passenger profile	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Domestic	99%	99%	99%	99%
International	1%	1%	1%	1%
Utility expenses / PAX (₹, inflation adjusted)	850,461	875,318	934,887	886,525
Utility expenses / ATM (₹, inflation adjusted)	8,499	7,720	8,215	7,398

**Figure 9: Traffic Mix at LGBIA**

6.4.3 It is observed that proportion of Domestic passengers has remained unchanged at 99% between FY 2016-17 and FY 2019-20. However, the corresponding CAGR increase in inflation-adjusted per PAX during the period has only been 1.04% and a reduction is seen in the per ATM Utility expenses by 3.41%, respectively (refer Table 49 and Table 50).

## 6.5 Summary of Internal Benchmarking

6.5.1 Out of the four major components of O&M expenses, three major expenses namely, Employee cost, and Administrative expenses have grown at a higher CAGR than that of PAX traffic during the period FY 2016-17 to FY 2019-20.

6.5.2 Further, the CAGR of major O&M expenses during Second Control Period (from FY 2016-17 to FY 2019-20) i.e., 27.27% was significantly higher than CAGR of 3.29% during the First Control Period (FY 2011-12 to FY 2015-16). This is primarily on account of increase in Airport staff salary cost, revision in maintenance contract rates. Further, a significant portion of the rise is attributed to Administrative and General expenses consisting of CHQ & RHQ allocation.

6.5.3 In respect of Second Control Period i.e., for the period FY 2016-17 to 2019-20 (excluding FY 2020-21) the major O&M expenses grew at a higher CAGR of 27.27% in comparison with PAX growth of 9.55% and ATM growth of 4.72%.

6.5.4 As submitted by AAI, the key reason of such higher growth in O&M expenses is mainly due to pay scale revision and arrears disbursement to Guwahati Airport employees as per 7<sup>th</sup> Pay Commission

report and increase in CHQ/RHQ allocation due to pay revision, inflation, and increase in revenues of Guwahati station.

- 6.5.5 It was observed that, the CAGR of Utility expenses in the Second Control Period was slightly higher than the CAGR in the First Control Period.
- 6.5.6 The Study has determined that there is a need to rationalise and bring more efficiency by optimising the O&M expenses at LGBIA.

## 7. EXTERNAL BENCHMARKING

### 7.1 Background

7.1.1 The benchmarking of O&M expenses with similar airports has been done to ascertain the reasonableness of the O&M expenses of LGBIA. It must be noted that, in general, benchmarking is a complex exercise on account of the variances in each airport caused by the following factors:

- Passenger traffic
- Passenger profile (i.e., Domestic vs. International; tourist, business, and industrial visitors)
- Private sector ownership vs. Airports Authority of India (AAI) operated
- Extent of outsourcing of activities, such as ground, fuel, and baggage handling
- Local labour conditions impacting minimum wages
- Age of the airport, and extent of automation and investment in IT systems
- Physical size of the airport, proximate city infrastructure, and availability of surplus land for Non-aeronautical activities
- Air-side infrastructure such as apron design and availability of aerobridges
- Weather conditions that can impact extent of air-conditioning and heating
- Usage of facilities by Defence forces and VIP movements

7.1.2 It has been determined that based on parameters such as passenger traffic, terminal building area, passenger mix, weather patterns and climate-induced operational parameters, Chaudhary Charan Singh International Airport (Lucknow Airport), Sardar Vallabhbhai Patel International Airport (Ahmedabad Airport), Pune International Airport (Pune Airport), and Cochin International Airport (Cochin Airport), are comparable to Lokpriya Gopinath Bordoloi International Airport (Guwahati Airport). Hence, the O&M expenses of LGBIA have been benchmarked against all the above-mentioned airports.

7.1.3 The benchmarking exercise has been performed only in respect of Major O&M expenses incurred during the period from FY 2016-17 to FY 2019-20. FY 2020-21 and FY 2021-22 have been excluded from this analysis, since the airport operations, and passenger traffic and ATM were significantly impacted by COVID-19 pandemic and the change of LGBIA's management from AAI to GIAL resulted in transition costs affecting trends in O&M expenses for these financial years.

7.1.4 Also, it would be pertinent to highlight here that the benchmarking has been carried out based on suitable parameters such as passenger traffic, terminal area, assets under management and total revenue.

### 7.2 Analysis of Major Aeronautical O&M expenses

7.2.1 The following table summarizes the average traffic (in million) from FY17 to FY20, Terminal Area, Closing RAB of FY 2020 and total revenue from FY 17-20 across select airports considered in this study.

**Table 51: Parameters for Peer Group Benchmarking**

Airport location	Traffic (Mn) (Avg. of FY 17-20)	Terminal Area (lakh sqm)	Closing RAB of FY 2020 (₹ in Crores)	Total Revenue FY 17-20 (₹ in Crores)
Guwahati	4.92	0.20	171.35	655.85

Airport location	Traffic (Mn) (Avg. of FY 17-20)	Terminal Area (lakh sqm)	Closing RAB of FY 2020 (₹ in Crores)	Total Revenue FY 17-20 (₹ in Crores)
Lucknow	4.92	0.30	207.46	784.94
Ahmedabad	9.80	0.70	328.92	1068.58
Pune	6.54	0.22	102.09	681.92
Cochin	9.72	2.21	1517.64	2268.94

7.2.2 The comparable airports in terms of passenger traffic, Terminal Area, and Total Revenue are Lucknow and Pune. However, Pune airport is a civil enclave, so its cost structure may not be comparable to that of typical AAI airports. Nevertheless, this airport has been included to have a wider peer group for comparison. In terms of the aeronautical assets managed, Lucknow and Ahmedabad are comparable airports in the peer group.

7.2.3 The major expense from FY 17-20 under O&M expenses across the select airports considered above are summarised in the table below:

**Table 52: Comparison of Major O&M Expenses among peer Airports**

(₹ in Crores)

Airport location	Employee		R&M		Utilities		A&G		CHQ/RHQ		Total
	Value	%	Value	%	Value	%	Value	%	Value	%	Value
Guwahati	105.12	32%	50.16	15%	21.69	7%	19.51	6%	132.49	40%	328.97
Lucknow	149.50	30%	52.40	11%	33.10	7%	78.70	16%	181.01	37%	494.71
Ahmedabad	134.60	19%	136.66	19%	79.56	11%	67.46	10%	280.98	40%	702.09
Pune	122.98	44%	19.72	7%	37.90	14%	13.55	5%	80.67	29%	279.45
Cochin	257.19	39%	79.30	12%	102.37	16%	87.84	13%	-	0%	653.80

From the above table and figures the following observations may be gathered:

7.2.4 Among the closest comparable airport in terms of passenger traffic i.e., Lucknow, LGBIA has a lower O&M expense in the Second Control Period. Among all the peer airports selected for comparison, the employee expenses of Guwahati are second lowest amongst all. Therefore, the case for detailed analysis of employee expenses does not arise.

7.2.5 The A&G expenses of LGBIA is amongst the lowest in peer airports comparison. Only Pune is lower in terms of total O&M expenses. Further the share of A&G expenses as a total of O&M expenses for LGBIA is also amongst the lowest. Hence, further scrutiny on the reasonableness of A&G expenses of LGBIA is not required.

7.2.6 Guwahati is similar to Lucknow airport in terms of the aeronautical assets managed, and the R&M expense associated with the airport. From this preliminary analysis of peer airports, the R&M expenses for LGBIA are at par with peer airports and would not need further analysis.

7.2.7 When compared to Lucknow and Pune Airports, the only airports that are comparable in terms of terminal area, the utility expenses of LGBIA are on lower side. Thus, no further analysis to check the reasonableness of these expenses is required.

7.2.8 With respect to CHQ/RHQ expenses, the expenses of LGBIA are on lower side compared to other airports and total revenue is at par with that of Lucknow. Pune Airport is a civil enclave with different RHQ and cost structure, and hence is ignored for this comparison. Therefore, the CHQ/RHQ expenses would not require further study.

### **7.3 Summary of External Benchmarking**

7.3.1 The Study has determined that there is no further need to rationalise and bring more efficiency by optimising the O&M expenses at LGBIA through the regulation of expenses based on External Benchmarking.

## **8. OVERALL SUMMARY OF THE STUDY**

### **8.1 Study Period, Operator and Trends**

8.1.1 The Study is conducted for the second control period i.e., FY'16 to FY'21, Pre COD i.e., 01st April 2021 to 7th October 2021 and also post COD period i.e. 8th October 2021 to 31st March 2022.

LGBIA was operated by AAI up to October 7, 2021. Pursuant to the Concession Agreement entered into by AAI and GIAL, the Airport Operations are handled by Guwahati International Airport Limited (GIAL) from October 8, 2021.

8.1.2 The total passenger traffic grew at a CAGR of 9.55% and the CAGR of air traffic movement was 4.72% for the period FY 2016-17 – FY 2019-20.

### **8.2 Assessment of Reasonableness of O&M expenses (Tariff Order Projections vs Actuals)**

8.2.1 The total Aeronautical O&M expenses of ₹ 426.31 Crores incurred as per true up submission for the Second Control Period (FY 2016-17 to 2020-21) is higher than the amount approved in the Tariff Order of ₹ 363.8 Crores which resulted in a deviation of 17% from the approved projections.

8.2.2 It is noted that the major reason for the overall deviation of 17% in the total Aeronautical O&M expenses for the Second Control period, is the increase in the allocation of CHQ & RHQ expenses.

8.2.3 The total Employee benefit expenses incurred by AAI till FY21 is lower than the approved amount as per the Tariff order for the Second Control period.

8.2.4 It was observed that the actual Utility expenses incurred were higher than the Tariff Order projections. The utility expenses have exceeded the projections, primarily due to the rise in electricity expenses due to addition of new facilities at the airport and increase in power tariff determined by third-party utility service provider i.e., APDCL. The Study team has verified the APDCL schedule of tariff and observed that there has been an increase in rates during the SCP. Considering the same, the actual expense incurred is proposed to be considered for the purposes of True up as per the Study

8.2.5 GIAL in its submission for Post-COD period has considered all expense as aeronautical which has been re-allocated as per AERA guidelines.

### **8.3 Segregation of costs**

8.3.1 As per the submission of AAI the total Aeronautical O&M expenses for the period from FY2016-17 to October 8, 2021, was ₹ 500.19 Crores. Based on the reallocation of the O&M expenses, the downward adjustment in the Aeronautical O&M expenses for the aforesaid period is ₹ 41.84 Crores and the reallocated Aeronautical O&M expenses for the period FY 2016-17 to October 8, 2021, has been determined as ₹ 458.34 Crores.

8.3.2 As per the submission of the Airport Operator the total Aeronautical O&M expenses for the period from COD to March 31, 2022, was ₹ 47.87 Crores. Based on the reallocation of the O&M expenses, and other corrections, the downward adjustment in the Aeronautical O&M expenses for the aforesaid period is ₹ 1.65 Crores and the reallocated Aeronautical O&M expenses for the period from COD to March 31, 2022, has been determined as ₹ 46.22 Crores.

## 8.4 Internal and External Benchmarking

- 8.4.1 Internal Benchmarking is performed by analysing the CAGR trend of four Major Aeronautical O&M expenses in comparison with the growth of PAX and ATM traffic over the period FY 2011-12 to FY 2019-20 (comparison of First Control Period with Second Control period excluding FY 2020-21).
- 8.4.2 The CAGR of major O&M expenses during Second Control Period (from FY 2016-17 to FY 2019-20) i.e., 27.27% was significantly higher than CAGR of 3.29% during the First Control Period (FY 2011-12 to FY 2015-16).
- 8.4.3 In respect of Second Control Period i.e., for the period FY 2016-17 to 2019-20 (excluding FY 2020-21) the major O&M expenses grew at a higher CAGR of 27.27% in comparison with PAX growth of 9.55% and ATM growth of 4.72%.
- 8.4.4 External benchmarking is performed for the period FY 2016-17 to FY 2019-20 (i.e., for the Second Control period excluding FY 2020-21) by comparing the major O&M expenses of GIAL with other comparable airports using various parameters (Passenger traffic, ATM, Terminal Building area, Total Revenue, and Closing RAB).
- 8.4.5 It is observed that out of all the comparable airports identified by the Study, Lucknow and Pune Airports are more comparable to Guwahati, in terms of PAX, Terminal Area and Total Revenue.
- 8.4.6 Further, it is observed that all the four major O&M expenses, except Repairs and Maintenance, of GIA is among the lowest in terms of absolute figures than the O&M expenses of closely comparable airports like Lucknow, during the entire period.
- 8.4.7 Based on the external benchmarking analysis, the O&M expenses were found to be reasonable. Therefore, the Study does not propose any further rationalisation of O&M expenses.
- 8.4.8 However, it is suggested that GIAL should take steps to bring efficiencies in the overall O&M expenses over a period.

## 8.5 Conclusion

- 8.5.1 The year-wise summary of the reclassification and other adjustments to O&M expenses is provided in the table below.

**Table 53: Year-wise summary of reclassification and other adjustments to Aero O&M expenses**

(₹ in Crores)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22*	Total till COD	FY 2021-22#	Total till Mar'22
O&M expenses as per true up submission of AAI and GIAL (A)	43.50	80.96	94.70	113.17	93.98	73.89	500.19	47.87	548.06
<b>O&amp;M expenses as per Study</b>									
Employee benefit expenses	16.62	24.00	32.05	32.37	26.62	14.78	146.44	18.56	165.00

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22*	Total till COD	FY 2021-22#	Total till Mar'22
Administrative and other expenses	23.56	29.71	35.36	52.05	44.03	24.99	<b>209.69</b>	13.20	<b>222.89</b>
Utilities expenses	4.45	5.02	6.03	6.12	5.10	2.99	<b>29.71</b>	2.62	<b>32.33</b>
Repairs & Maintenance expenses	7.63	15.37	12.82	13.81	12.03	7.33	<b>68.99</b>	9.29	<b>78.28</b>
Other Outflows	0.73	0.91	0.78	0.94	0.09	0.08	<b>3.52</b>	2.55	<b>6.07</b>
<b>Total (B)</b>	<b>52.99</b>	<b>75.01</b>	<b>87.04</b>	<b>105.29</b>	<b>87.87</b>	<b>50.17</b>	<b>458.34</b>	<b>46.22</b>	<b>504.57</b>
<b>Impact (B - A)</b>	<b>9.49</b>	<b>(5.95)</b>	<b>(7.66)</b>	<b>(7.88)</b>	<b>(6.11)</b>	<b>(23.72)</b>	<b>(41.84)</b>	<b>(1.65)</b>	<b>(43.49)</b>

\* Up to the date of COD (October 8, 2021)

# From COD till March 31, 2022

8.5.2 The Authority had decided to consider an amount of ₹ 363.8 Crores as the operational and maintenance expenditure in its Tariff Order for SCP of GIAL.

8.5.3 As per the submission of AAI, the total Aeronautical O&M expenses for the period from FY2016-17 to FY2020-21 was ₹ 426.31 Crores.

8.5.4 For the period April 01, 2021, till October 8, 2021 (COD), the total Aeronautical O&M expenses as submitted by AAI is ₹ 73.89 Crores.

8.5.5 The total Aeronautical O&M expenses for the period from FY2016-17 till COD as per true-up submission of AAI, was ₹ 500.19 Crores.

8.5.6 Based on the reallocation of the O&M expenses, the downward adjustment in the Aeronautical O&M expenses for the period from FY2016-17 to FY2020-21 is ₹ 18.13 Crores, and for the period from April 01, 2021, till October 8, 2021 (COD) is ₹ 23.71 Crores.

8.5.7 The reallocated Aeronautical O&M expenses for the period FY 2016-17 to October 8, 2021, has been determined as ₹ 458.34 Crores. The Aeronautical O&M expenses for the period from FY 2016-17 till COD is reduced by 8.55%.

8.5.8 As per the submission of GIAL the total Aeronautical O&M expenses for the period from COD to March 31, 2022, was ₹ 47.87 Crores. Based on the reallocation of the O&M expenses, the downward adjustment in the Aeronautical O&M expenses for the aforesaid period is ₹ 1.65 Crores and the reallocated Aeronautical O&M expenses (prior to rationalisation) for the period from COD to March 31, 2022, has been determined as ₹ 46.22 Crores. The Aeronautical O&M expenses for the period from COD up to March 31, 2022, is reduced by 3.44%.



## 9. GLOSSARY

Abbreviation	Full Form
AAI	Airports Authority of India
AAICLAS	AAI Cargo Logistics and Allied Services Company Ltd.
AAHL	Adani Airport Holding Limited
A&G	Administrative & General
ACI	Airports Council International
AERA	Airports Economic Regulatory Authority
AEL	Adani Enterprises Limited
AO (Airport Operator)	Guwahati International Airport Limited
ANS	Airport Navigation Services
AOCC	Airport Command and Control
APDCL	Assam Power Distribution Company Limited
Asset Allocation Report	Study on allocation of assets between Aeronautical and Non-aeronautical for GIAL
ATM	Air Traffic Movement
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CCSIA	Chaudhary Charan Singh International Airport
CHQ	Corporate Head Quarters
CNS	Communications, Navigation & Surveillance
COD	Commercial Operation Date
CUTE	Common User Terminal Equipment
EHCR	Employee Head Count Ratio
FIDS	Flight Information Display System
FRoR	Fair Rate of Return
FY	Financial Year
GB	Gross Block
GFA	Gross Fixed Asset
GIAL	Guwahati International Airport Limited
GoI	Government of India
IATA	International Air Transport Association
IMG	Inter-Ministerial Group
INR	Indian Rupee
IT	Information Technology
LGBIA	Lokpriya Gopinath Bordoloi International Airport
MPPA	Million Passengers Per Annum
MYTP	Multi Year Tariff Proposal
NCAP	National Civil Aviation Policy
O&M	Operation and Maintenance
OPEX	Operational Expenditure
PAX	Passenger
PSF	Passenger Service Fee
R&M	Repairs & Maintenance
RAB	Regulatory Asset Base
RFP	Request for Proposal
RHQ	Regional Head Quarter
Sq.m.	Square metre
SVPIA	Sardar Vallabh Bhai Patel International Airport
TB	Terminal Building
UDF	User Development Fee
VIP	Very Important Person
WPI	Wholesale Price Index
XBIS	X-ray Baggage Inspection Systems

