

[F.No. AERA /20011 /AO-G/2010-11]

Consultation Paper No.13/2010-11



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Airports Economic Regulatory Authority of India

**Economic Regulation of Services Provided
by Airport Operators**

New Delhi: 2nd February, 2011

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

Pursuant to enactment of the “The Airports Economic Regulatory Authority of India Act, 2008” (hereinafter referred as the ‘Act’) and establishment of the Airports Economic Regulatory Authority (hereinafter referred as the ‘Authority’), the Authority is to perform the following functions in respect of major airports:

- (a) to determine the tariff for the aeronautical services;
- (b) to determine the amount of the development fees in respect of major airports;
- (c) to determine the amount of the passengers service fee levied under rule 88 of the Aircraft Rules, 1937 made under the Aircraft Act, 1934; and
- (d) to monitor the set performance standards relating to quality, continuity and reliability of service as may be specified by the Central Government or any authority authorised by it in this behalf.

2.1 As per Section 2 (a) of the Act, any service provided inter alia **“for the landing, housing or parking of an aircraft or any other ground facility offered in connection with aircraft operations at an airport”; “for ground safety services at an airport”; “for ground handling services relating to aircraft, passengers and cargo at an airport”; “for the cargo facility at an airport”; and “for supplying fuel to the aircraft at an airport”** are aeronautical services.

2.2 The Authority’s **mandate to determine the tariff for aeronautical services; to determine the rate of the Development Fee (DF) including User Development Fee (UDF); and to determine the amount of Passenger Service Fee (PSF), in respect of major airports,** has been suitably incorporated in the Airports Authority of India Act, 1994, and the Aircraft Rules, 1937, as well.

2.3 To ensure transparency in the process leading up to the framing of appropriate procedures / systems for economic regulation, as required in terms of the Act, the Authority **issued a White Paper on ‘Regulatory Objectives and Philosophy in Economic Regulation of Airports and Air Navigation Services’ (‘White Paper’) on 22.12.2009,** highlighting various issues relating to economic regulation of airports; air navigation services; and cargo, ground handling and fuel supply services. The White Paper provided stakeholders an opportunity to consider the issues highlighted therein and submit evidence-based feedback, comments and suggestions. The Authority received 28 submissions in response to the White Paper. **The submissions were put up on the Authority’s website for general information.**

2.4 The Authority considered the views and opinions submitted in response to the White Paper and prepared a Consultation Paper listing out the major issues impacting formulation of its regulatory philosophy and approach and laying out its rationale for the positions/ approach it was minded to take. The Consultation Paper (No. 03/2009-10) was issued on 26.02.2010 with the intention of providing a further opportunity to stakeholders to make relevant submissions to the Authority before the Regulatory Philosophy and Approach was finalized. On 16.03.2010 the Authority convened a consultation meeting with the stakeholders to elicit their views in person. The Authority received 21 written submissions containing suggestions and comments in respect to the Consultation Paper from stakeholders. These suggestions and comments together with the minutes of the meeting held on 16.03.2010 were uploaded **on the Authority’s website (www.aera.gov.in).** The

Authority also received two further submissions from the Association of Private Airport Operators (APAO) on the consultation protocol and the cost of equity.

3.1 After detailed consideration of the matter and stakeholder responses, the Authority in its 28th Meeting (No.21/2010-11) held on 12.01.2011 finalised the Regulatory Philosophy and Approach in Economic Regulation of Airport Operators. The Order (No.13/2010-11) so approved was also issued on 12.01.2011. The Order also stated that the Authority proposes to operationalise the regulatory philosophy and approach through detailed guidelines, which shall be issued separately for stakeholder consultation before being finalised.

3.2 A draft of “The Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011” is enclosed herewith.

4. Stakeholders are requested to give evidence based feedback / comments in respect of the Draft Guidelines. It may please be observed that by way of appropriate Notes below respective Clauses in the Draft Guidelines, the Authority has sought comments specifically on the issue of operationalising the UDF (Clause 6.8.6) and the Error Correction term (Clause 6.20). It is clarified that the Authority would entertain comments only in respect of the Draft Guidelines regarding the aforementioned services. The comments are sought for the limited purpose and scope of services provided by the Airport Operators and, it will not be possible to entertain any comments in respect of the regulatory philosophy and approach underlying these Guidelines.

5. The Authority welcomes written evidence-based feedback, comments and suggestions from stakeholders on the draft “The Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011” latest by **22nd February, 2011** at the following address:

Shri Sandeep Prakash
Secretary
Airports Economic Regulatory Authority of India
AERA Building,
Administrative Complex,
Safdarjung Airport, New Delhi 110003
Email: sandeep.prakash@aera.gov.in, sandeep.moca@nic.in
Tel: 011- 2469 5040
Fax: 011- 2469 5039

Yashwant S. Bhawe
Chairperson

Enclosure:

Draft of “The Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011”

Draft

Airports Economic Regulatory Authority of India

**Airports Economic Regulatory Authority of India
(Terms and Conditions for Determination of Tariff for
Airport Operators) Guidelines, 2011**

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

Date – February XX 2011

Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines 2011

Whereas “services provided for (i) the landing, housing or parking of an aircraft or any other ground facility offered in connection with aircraft operations at an airport; (ii) ground safety services at an airport; (iii) ground handling services relating to aircraft, passengers and cargo at an airport; (iv) the cargo facility at an airport; and (v) **supplying fuel to the aircraft at an airport**”, are “**aeronautical services**” in terms of section 2(a) of the Airports Economic Regulatory Authority of India Act, 2008 (the Act);

Whereas under section 13(1)(a) of the Act, the Authority is required to determine the tariff for aeronautical services;

Whereas under section 15 of the Act, the Authority may, for the purpose of discharge of its functions under the said Act, issue, from time to time to the Airport Operator(s), such directions as it may consider necessary;

Whereas the Authority considers it necessary, for the purpose of discharge of its function of determination of tariff for the aforesaid services, to issue guidelines setting out a framework incorporating terms, conditions, systems, procedures, and information requirement therefor;

Now, therefore, in terms of powers conferred on it under section 15 of the Act, the Authority hereby directs the Airport Operator(s) providing the aforesaid services to act in accordance with the following guidelines:

1. PRELIMINARY

1.1. Short Title, Extent and Commencement:

- 1.1.1. These guidelines shall be called the Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011 (“**Guidelines**”).

- 1.2. These Guidelines shall apply to Airport Operator(s) for (i) the landing, housing or parking of an aircraft or any other ground facility offered in connection with aircraft operations at a Major Airport; (ii) ground safety services at a Major Airport; (iii) ground handling services relating to aircraft, passengers and cargo at a Major Airport; (iv) the cargo facility at a Major Airport; and for (v) supplying fuel to the aircraft at a Major Airport;
- 1.3. These Guidelines shall come into force on the date of issue by the Authority.
- 1.4. These Guidelines shall be applicable to the Indira Gandhi International Airport, New Delhi, Chhatrapati Shivaji International Airport, Mumbai and the Civil Enclaves at Goa and Pune in such form and manner as the Authority may by a separate order determine.

2. Definitions

In these Guidelines, unless the context otherwise requires:

- 2.1. **Act** means the Airports Economic Regulatory Authority of India Act, 2008 (27 of 2008);
- 2.2. **AAI Act** means the Airport Authority of India Act, 1994 (55 of 1994);
- 2.3. **Actual Maximum Allowed Yield per passenger** means the actual yield per passenger allowed to be recovered in a Tariff Year, calculated according to Clause 6.12;
- 2.4. **Airport Operator** means the licensee of a Major Airport or the authority which manages such Major Airport;
- 2.5. **Aggregate Revenue Requirement** means the revenue requirement from Regulated Service(s) determined by the Authority, where applicable, taking into consideration, a fair rate of return applied to the forecast Regulatory Asset Base, forecast operation and maintenance expenditure, forecast depreciation, forecast taxation and forecast revenue from services other than Regulated Services, calculated according to Clause 4;
- 2.6. **Annual Compliance Statement** means an annual statement submitted by the Airport Operator(s), in accordance with these Guidelines, as may be

applicable to them, after the end of a Tariff Year based on annual audited accounts;

- 2.7. **Annual Tariff Order** means such order as may be made by the Authority for specifying the Tariff(s) and Estimated Maximum Allowed Yield per passenger;
- 2.8. **Annual Tariff Proposal** means an annual proposal submitted by the Airport Operator(s) containing the calculation of Estimated Maximum Allowed Yield per passenger to be recovered during the Tariff Year, and a detailed break-up of the Tariff(s), from which it proposes to recover the EMAY, for consideration by the Authority, in accordance with Clause 6.8 as specified by the Authority;
- 2.9. **Appendix** means Appendix to these Guidelines;
- 2.10. **Arms Length Transaction** shall have the same meaning as is ascribed in Accounting Standard on Related Parties No. 18; and relevant sections dealing with ‘Transfer Pricing’ in the Income Tax Act, 1961 or Direct Tax Code, as the case may be. Furthermore, in the determination of Arms Length Transaction reference may be had to Companies Act 1956, Customs Act 1962, Foreign Exchange Management Act 1999, Custom Valuation Rules 2007 and any other relevant law, as may be required;
- 2.11. **Authority** means the Airports Economic Regulatory Authority of India;
- 2.12. **Capital Asset Pricing Model** means the use of the following functional form to estimate the cost of equity:

$$R_e = R_f + \beta \times EMRP$$

Where:

R_e is the cost of equity

R_f is the risk free rate

β is the beta

EMRP is the equity market risk premium which is equal to $(R_m - R_f)$ where R_m is the return on market portfolio

- 2.13. **Clause(s)** means the Clause(s) of these Guidelines;

- 2.14. **Confidential Information** shall mean information, including a formula, pattern, compilation, programme device, method, technique, or process, that:
- (a) is secret in that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
 - (b) has commercial value because it is secret; and
 - (c) has been subject to reasonable steps under the circumstances by the person lawfully in control of the information, to keep it secret.
- 2.15. **Control Period** means a period of five Tariff Years, during which the Multi Year Tariff Order and Tariff(s) as determined by the Authority pursuant to such Order shall subsist. Provided that the first Control Period shall commence from 1st April 2011;
- 2.16. **Estimated Maximum Allowed Yield** per passenger means the estimated yield per passenger allowed to be recovered in a Tariff Year, calculated according to Clause 6.9;
- 2.17. **Form(s)** shall mean the form(s) listed in the Schedule to these Guidelines;
- 2.18. **Multi Year Tariff Framework** means the framework enunciated in these Guidelines for economic regulation, and determination in advance, of tariffs over a period of time and includes the underlying principles covering inter alia determination of the Aggregate Revenue Requirement as described in Chapter II;
- 2.19. **Multi Year Tariff Order** means such order as may be made by the Authority specifying the Aggregate Revenue Requirement and yield per passenger applicable for a Control Period;
- 2.20. **Multi Year Tariff Proposal** means a proposal by the Airport Operator(s) to the Authority before the start of a Control Period for, determination of tariffs

pursuant to determination of Aggregate Revenue Requirement and yield per passenger for a given Control Period, in accordance with Section A5.2;

- 2.21. **Regulated Service(s)** means any aeronautical service provided by the Airport Operator other than service provided for navigation, surveillance and supportive communication thereto for air traffic management;
- 2.22. **Regulatory Building Blocks** means components required for determining the Aggregate Revenue Requirement for Tariff Year(s) of the relevant Control Period as enumerated in Clause 5;
- 2.23. **Section(s)** mean the section(s) of the Appendices attached to these Guidelines;
- 2.24. **Tariff(s)** means such tariff(s) as approved by the Authority for levy by an Airport Operator for provision of Regulated Services;
- 2.25. **Tariff Year** means each year in a Control Period. The Tariff Year shall commence on 1st April of a calendar year and end on 31st March of the subsequent calendar year;
- 2.26. **User(s)** means any person availing any Regulated Service;
- 2.27. **Volume** means the total number of departing and arriving passengers;
- 2.28. Words and expressions used but not defined in these Guidelines shall have the same meaning respectively assigned to them under the Act.
- 2.29. **Interpretation**

In case of any dispute regarding interpretation as to the meaning of any term, expression or provision in these Guidelines, the decision of the Authority shall be final and binding.

3. Procedure for submission and review of Tariff Proposals

- 3.1. All Airport Operator(s) shall, within two months of the date of issue of these Guidelines, submit to the Authority for its consideration, a Multi Year Tariff Proposal for the first Control Period in the form and manner specified in Section A5.2 of Appendix 5 hereto:

Provided that the due date for submission of the Multi Year Tariff Proposal for subsequent Control Period(s) shall be as specified by the Authority.

Provided further that in the event, after issue of these Guidelines, that an Airport Operator is granted permission for providing Regulated Service(s) at a Major Airport or an airport becomes a Major Airport, the Airport Operator(s) shall, within two months of the date of grant of such permission or date of the airport becoming a Major Airport, as the case may be, submit to the Authority for its consideration, a Multi Year Tariff Proposal in accordance with these Guidelines.

- 3.2. The Authority shall put in the public domain for stakeholder consultations, the information received from the Airport Operator(s) as part of their Multi Year Tariff Proposal(s).

Provided that the Authority shall consider specific submission(s) from Airport Operator(s) for not putting certain information in the public domain, on grounds of such information being Confidential Information.

The Authority shall review such submission(s) and decide as it may deem appropriate.

- 3.3. The Authority shall upon due consideration of the Multi Year Tariff Proposal and stakeholder consultations thereon and after obtaining such additional information, as it may consider necessary, make a Multi Year Tariff Order for a Control Period:

Provided that after receiving Multi Year Tariff Proposals, the Authority may, for administrative exigencies, notify a separate schedule for making Multi Year Tariff Orders vis-à-vis different proposals.

Provided further that wherever after filing of the requisite proposals by the Airport Operator, the Authority is of the opinion that it may not be possible to issue the Multi Year Tariff Order or the Annual Tariff Order or both, as the case may be, as per timelines contemplated in these Guidelines, the Authority may issue appropriate orders for regulating the Tariffs during the interim period.

- 3.4. After issuance of the Multi Year Tariff Order, the concerned Airport Operator(s) shall submit to the Authority its Annual Tariff Proposal(s):

Provided that an Annual Tariff Proposal shall be submitted at least 75 days prior to the start of the Tariff Year.

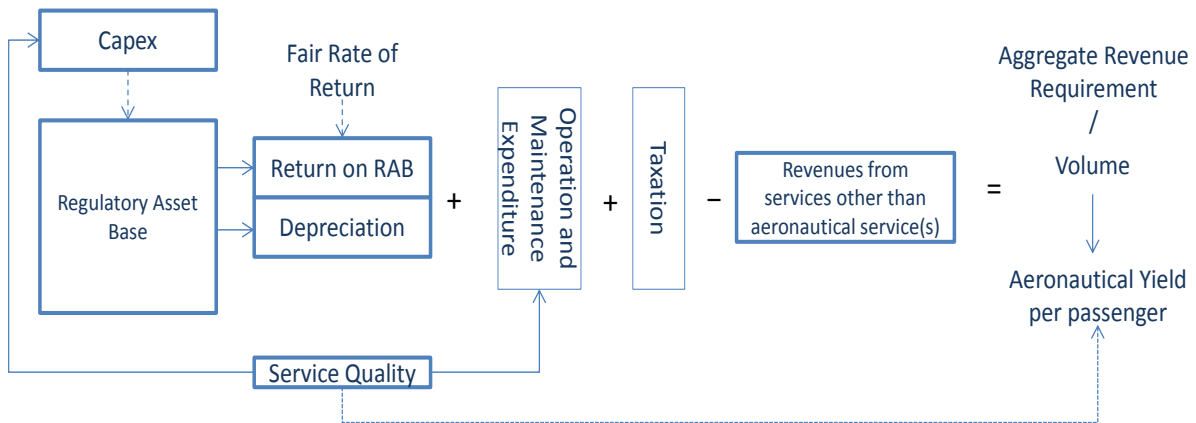
Provided further that the Annual Tariff Proposal for the first Tariff Year of the first Control Period shall be submitted within 45 days of the issue of the Multi Year Tariff Order.

- 3.5. Subject to Clause 3.7, the Authority shall duly consider the Annual Tariff Proposal and may, where considered necessary, direct an analysis of the said proposal and require submission of additional information.
- 3.6. The Authority shall after due consideration of the Annual Tariff Proposal make an Annual Tariff Order for a Tariff Year.
- 3.7. All Airport Operator(s) shall submit an Annual Compliance Statement, within one month from the date on which audited information for a Tariff Year becomes available, or within 6 months of the close of the relevant financial year, whichever is earlier.
- 3.8. Upon receiving a specific request for extension of time for the submission of a Multi Year Tariff Proposal, an Annual Tariff Proposal, an Annual Compliance Statement or such other document or information that the Authority may have required the Airport Operator(s) to submit, the Authority may grant to the said Airport Operator(s) such extension of time, as deemed appropriate, on such terms and conditions, as may be specified in the order.
- 3.9. In the event that the Airport Operator(s) fails to submit the said Multi Year Tariff Proposal, an Annual Tariff Proposal, an Annual Compliance Statement

or such other document or information that the Authority may have required the Airport Operator(s) to submit within the specified period, or extension thereto, if any, the Authority may make such order as it deems appropriate.

4. Procedure for determination of Aggregate Revenue Requirement for Regulated Service(s)

- 4.1. The Multi Year Tariff Framework, enunciated in these Guidelines, comprises a set of principles covering inter alia those, which the Authority shall use in analyzing and determining the Regulatory Building Blocks for calculation of Aggregate Revenue Requirement (ARR) for a Control Period.
- 4.2. The Authority shall calculate the Aggregate Revenue Requirement for a given Control Period based on determination of the following Regulatory Building Blocks components and as depicted in diagram below:
- 4.2.1. Fair Rate of Return applied to the Regulatory Asset Base (FRoR x RAB)
- 4.2.2. Operation and Maintenance Expenditure (O)
- 4.2.3. Depreciation (D)
- 4.2.4. Taxation (T)
- 4.2.5. Revenues from services other than aeronautical service(s) (NAR)



- 4.3. The Aggregate Revenue Requirement for the Control Period (ARR) shall be expressed as under:

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

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

Where t is the Tariff Year in the Control Period and ARR_t is the Aggregate Revenue Requirement for year t

Illustration 1: The following example illustrates the calculation of Aggregate Revenue Requirement for a Control Period. The numbers in the illustration have been rounded to the nearest integers.

Aggregate Revenue Requirement						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
RAB for calculating ARR	RAB	19,663	17,644	15,230	13,138	11,912
Fair Rate of Return applied to the RAB	FRoR	16.0%	16.0%	16.0%	16.0%	16.0%
	$RAB \times FRoR$	3,146	2,823	2,437	2,102	1,906
Depreciation	D	2,307	2,364	2,364	2,402	731
Operation and Maintenance Expenditure	O	2,000	2,200	2,400	2,550	2,800
Tax	T	40	31	269	432	606
Revenues from services other than aeronautical service	NAR	833	930	1,020	1,111	1,197
		ARR1	ARR2	ARR3	ARR4	ARR5
Aggregate Revenue Requirement	$ARR_t = RAB_t \times FRoR + O_t + D_t + T_t - NAR_t$	6,660	6,488	6,450	6,376	4,845

- The numbers in this illustration are on nominal¹ basis.
- RAB for calculating ARR shall be determined as per Clause 5.2.
- FRoR for calculating ARR shall be determined as per Clause 5.1.
- Depreciation for calculating ARR shall be determined as per Clause 5.3.
- Tax for calculating ARR shall be determined as per Clause 5.5
- Revenues from services other than aeronautical service for calculating ARR shall be determined as per Clause 5.6

¹ Means inflation adjusted

5. Regulatory Building Blocks

5.1. Fair Rate of Return (FRoR)

5.1.1. The Authority shall determine the Fair Rate of Return (FRoR) for a Control Period as its estimate of the weighted average cost of capital for an Airport Operator as under :

$$FRoR = (g \times R_d) + ((1 - g) \times R_e)$$

Where:

g is gearing (i.e. debt / debt + equity)

R_d is the pre-tax cost of debt

R_e is the post-tax cost of equity

5.1.2. The FRoR shall be calculated on a nominal basis for a Control Period.

5.1.3. Cost of Equity

The Authority shall estimate cost of equity, for a Control Period, by using the Capital Asset Pricing Model (CAPM) for each Airport Operator, subject to the consideration of such factors as the Authority may deem fit.

5.1.4. Cost of Debt

- (a) The Authority shall consider the forecast cost of existing debt, subject to the Authority being assured of the reasonableness of such costs based on a review including of its source(s), procedure(s) and method(s) used for raising such debt(s).
- (b) The Authority shall consider the forecast for future cost of: (i) debt proposed to be raised during the Control Period; or (ii) such debt which may be subject to a floating rate of interest subject to the Authority being assured of the reasonableness of such costs, based on a review

including of its source(s), procedure(s) and method(s) to be used for raising such debt(s).

- (c) The Authority shall determine a weighted average cost of debt, according to the formula indicated in the illustration 2 below Clause 5.1.7, in a Control Period for the purpose of determination of FRoR. The determination of such weighted average cost of debt shall be based on the forecast quantum of debt for each Tariff Year in a Control Period and shall have reference to the projected quantum of debt submitted by the Airport Operator.
- (d) The Authority shall not consider any short term debt, deposits etc. with maturity of less than 12 months, for its determination of weighted average cost of debt. The Authority shall instead review such debt according to Clause 5.4.
- (e) Financing costs associated with debt considered for the determination of weighted average cost of debt, shall be considered in the capital costs of the project and not as an adjustment to the cost of debt.

5.1.5. The Authority shall consider, for determination of Fair Rate of Return, interest free or concessional loan arrangements, deposits if any.

5.1.6. The Authority shall consider, in respect of the cost of equity or cost of debt, as the case may be, the nature of all financial instruments being used or proposed to be used to mobilize such funds.

5.1.7. Gearing

- (a) The Authority shall determine a weighted average gearing in a Control Period for the purpose of determination of FRoR. The determination of such weighted average gearing shall have reference to actual and projected quantum of debt submitted by the Airport Operator. The calculation of such weighted gearing shall be based on the forecast quantum of debt and equity for each Tariff Year in a Control Period. The Authority would also consider other factors while assessing fair

rate of return in cases where there is a low level of gearing with an underlying objective of protecting the reasonable interests of Users.

Illustration 2: The following example illustrates this approach, where the forecasted debt, equity, and cost of debt vary over the Control Period. The numbers in the illustration have been rounded to the nearest integers except for those in percentage.

Fair rate of Return					
	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Debt (D)	20,000	27,000	27,000	40,000	45,000
Equity (E)	15,000	15,000	15,000	30,000	30,000
Debt+Equity (C)	35,000	42,000	42,000	70,000	75,000
Cost of Debt (Kd)	13.90%	14.00%	15.00%	14.20%	14.50%
Cost of Equity (Ke)	18.00%	18.00%	18.00%	18.00%	18.00%
Individual Year Gearing (G)	57.1%	64.3%	64.3%	57.1%	60.0%
Weighted Average Gearing (WG)	60.2%				
Weighted Average Cost of Debt (Rd)	14.3%				
Cost of Equity (Re)	18.0%				
Fair Rate of Return	16.0%	FRoR = WG x Rd + (1-WG) x Re			

- The example illustrates that for each Tariff Year, the gearing differs on account of varying levels of debt and equity. Therefore, the weighted average gearing for the determination of FRoR is arrived at using the following formula:

$$\text{Weighted average gearing} = WG = \sum_{t=1}^5 (C_t \times G_t) / \sum_{t=1}^5 (C_t)$$

where

$t = 1$ to 5 denotes each Tariff Year

- Similarly, the cost of debt differs for each Tariff Year. Therefore, the weighted average cost of debt, for determination of FRoR, is arrived at using the following formula:

$$\text{Weighted average cost of debt} = Rd = \sum_{t=1}^5 (D_t \times Kd_t) / \sum_{t=1}^5 (D_t)$$

where

t = 1 to 5 denotes each Tariff Year

5.2. Regulatory Asset Base (RAB)

5.2.1. Scope of the RAB

- (a) In normal course, all airport fixed assets will come under the scope of the RAB. However, the Authority may, based on due consideration of relevant factors, include or exclude certain fixed assets from the scope of RAB.
- (b) The relevant RAB assets shall be all the fixed assets proposed by the Airport Operator(s), after providing for such exclusions therefrom or such inclusions therein, as may be determined by the Authority in respect of specific assets based on following principles:
 - (i) The assets that substantially provide amenities / facilities/ services that are not related to, or not normally provided at an airport, may be excluded from the scope of RAB;
 - (ii) The assets that in the opinion of the Authority do not derive any material commercial advantage from the airport (for example from being located close to the airport) may be excluded from the scope of RAB;
 - (iii) Responses by stakeholders in relation to their inclusion or exclusion during consultations;
 - (iv) **Specification of, to the Authority's satisfaction, sufficient accounting separation to ensure that the costs and revenues associated with the assets shall be clearly identified for the preparation and audit of regulated airport accounts;**

- (v) **Specification of, to the Authority's satisfaction wherever** appropriate (where the Authority considers there may be substantial financial risks associated with any asset), sufficient legal separation to protect the Airport Operators, and thus airport Users, in the event of any substantial financial risks materialising. The Authority shall require the Airport Operator(s) to insulate the Users by suitably ring fencing the assets excluded from the scope of RAB. The principles governing the ring fencing are mentioned in the paragraph 7.5 of Order Number 13/2010-11 of the Authority issued on 12-Jan-2011.
- (vi) Notwithstanding the principles mentioned under points (i) to (v) above, assets with fixed locations inside terminal buildings shall be considered within the scope of RAB.
- (c) Any exclusion/ inclusion shall only be considered if it is proposed to be executed in the Control Period for which the Multi Year Tariff Proposal is submitted.
- (d) The Authority may also, in its discretion, consider any other relevant factors for exclusion or inclusion of assets.
- (e) The assets related to any service(s) provided by the Airport Operator that are subject to separate control and regulated as per Clause 5.7, shall be excluded from the scope of RAB.
- (f) The assets related to mandated security expenditure as laid down by the Government/ Bureau of Civil Aviation Security (BCAS), at the time of development of a brown field or green field airport shall form part of the project cost and shall be included in the Initial RAB in accordance with Clause 5.2.4. However, any incremental capital expenditure on security related assets shall be met out of Passenger Service Fee (PSF). The Authority will issue guidelines for determination of Passenger Service Fee (PSF) separately.

- (g) Consequent to the exclusion of identified assets from RAB, the Authority shall not consider the value of such assets (including its corresponding revenues and expenditures) for the purpose of determination of Aggregate Revenue Requirement. However, if the Authority permits to exclude an asset from the RAB based on Multi Year Tariff Proposal of the Airport Operator and if for any reason the Airport Operator is unable to execute such exclusion, notwithstanding the treatment that the Authority may decide to provide to such asset in the roll forward of RAB, no compensation shall be allowed for the same within the Control Period.
- (h) If the Authority considers that an asset is required to be included in the scope of RAB which has not been so proposed by the Airport Operator, the Authority shall determine the value of such asset as follows:

Cost of Asset to be considered for inclusion in RAB

= Original Cost of Fixed Assets

–Accumulated Depreciation

–Accumulated Capital Receipts of the nature of contributions from stakeholders

Where:

Original Cost of Fixed Assets, Accumulated Depreciation and Accumulated Capital Receipts of the nature of contributions from stakeholders shall be considered as per Clause 5.2.4(b) below.

- (i) The RAB may not necessarily correspond to the sum of any values of the fixed assets held in any fixed asset register. However, the adjustments to the RAB account shall relate to transactions and events in respect of the fixed assets such as acquisitions, commissioning, disposals, exclusions and depreciation.

5.2.2. The RAB shall represent the value of net investments, according to Clause 5.2.1 and 5.2.6, made by the Airport Operator.

5.2.3. For any Tariff Year t , RAB shall be the average of the RAB value at the end of Tariff Year t and the RAB value at the end of the preceding Tariff Year $t-1$, as under:

$$\frac{RAB_t + RAB_{t-1}}{2}$$

5.2.4. Initial RAB

- (a) The initial RAB for the determination of Aggregate Revenue Requirement for the first Control Period shall be the fixed assets indicated in the last audited accounts of the Airport Operator, subject to Clause 5.2.1.
- (b) The value of the initial RAB shall be calculated as under:

$$\text{Initial RAB} = \text{Original Cost of Fixed Assets}$$

– *Accumulated Depreciation*

– *Accumulated Capital Receipts of the nature of contributions from stakeholders*

– *Asset Value Adjustment for assets excluded from the scope of RAB*

– *Land Value Adjustment for assets excluded from the scope of RAB*

Where:

Original Cost of Fixed Assets: The original cost of fixed assets as indicated in the last audited accounts, (excluding any re-valuation other than adjustments for impairment or such other adjustments that the Authority may consider appropriate) shall be included in the scope of the RAB based on the following principles:

- (i) Evidence of competitive procurement for major capital investments of value more than 5% of the opening RAB of the first Tariff Year;

- (ii) Evidence that investment was made in accordance with the capital investment plan duly approved by the competent authority.
- (iii) Evidence that investment, if any, over and above as provided for in (ii) above was necessary for providing better service at airport(s) or on account of a specific request from Users or stakeholders.

Accumulated Depreciation: Accumulated amounts provided for depreciation of fixed assets, considered as above, as indicated in the last audited accounts, using depreciation policies that reflect reasonable estimates of the useful economic life of the assets;

Accumulated Capital Receipts of the nature of contributions from stakeholders: Total contributions pertaining to the fixed assets which are included in the scope of the RAB, including by way of development fees, capital grants and subsidies.

Asset Value Adjustment: For assets excluded from the scope of RAB, an adjustment (Asset Value Adjustment) in respect of the value of the asset and any corresponding land associated with such asset would be considered at the higher of:

- (i) Sum of the depreciated replacement cost value of such asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose,
- (ii) Sum of the book value of such asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose, and
- (iii) Sum of the transfer value of the asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose; provided

that if land value is already a part of the transfer value, the Land Value Adjustment will be treated as Zero.

For the purpose of effecting the above adjustment, the Authority will require the airport company to notify the details and book value of such asset. The Authority will review and may commission experts to independently determine the following:

- (i) Depreciated replacement cost of the asset; and
- (ii) Arrangement between the Airport Operator as the transferor and the transferee is an Arms Length Transaction.

If the Airport Operator(s) decides, in future, to utilise that asset for any airport related activity and approaches the Authority to consider its value in the RAB, the Authority, upon due review of the proposal in general, may consider inclusion of value of such asset and its corresponding land into the RAB at the same value at which such asset was earlier excluded from the RAB.

Land Value Adjustment: For assets excluded from the scope of RAB, an adjustment (Land Value Adjustment) in respect of any corresponding land associated with such asset transferred or leased to or acquired by the Airport Operator in the past would be considered at the higher of (a) the prevailing market value of such land, or (b) the book value of such land.

For the purpose of effecting the above land value adjustment, the Authority will require the airport company to notify the location and book value of such land. The Authority may commission experts to independently determine and review the market value in respect of such land. Such valuations may take into account any covenant or other obligation in respect of such land (including the payment of concession fees under any concession agreement).

Illustration 3: The following example illustrates this approach for calculation of Initial RAB. The numbers in the illustration have been rounded to the nearest integers.

Fixed assets data from fixed asset register						
Asset	Useful Economic Life (EL)	Original Cost of Fixed Assets (OC)	Capital Receipt (SC)	Depreciation rate (DR = 1/EL)	Years in Operation (Y)	Accumulated Depreciation AD = (OC-SC) x 0.9 x DR x Y
Asset 1	25	15,000	0	4.00%	5	2,700
Asset 2	10	20,000	1,000	10.00%	5	8,550
	Total	35,000	1,000			11,250

Initial RAB Valuation		
Original Cost of fixed assets	35,000	OC
Accumulated depreciation	11,250	AD
Capital receipt	1,000	SC
Asset Value Adjustment	-	AVA
Land Value Adjustment	-	LVA
Initial RAB	22,750	IR = OC – AD – SC – AVA – LVA

- *The example illustrates that data from the fixed asset register of year 2009-10, as submitted by the Airport Operator, is used to calculate the value of Initial RAB. The Initial RAB shall then be used for forecasting RAB at the end of year 2010-11.*
- *The depreciation rate is calculated using the straight line method based on the useful economic life of the asset. Any capital receipt has not been considered for the purpose of calculation of depreciation.*

5.2.5. Forecasting the RAB

- (a) The forecast of the RAB shall be made at the beginning and at the end of each Tariff Year in a Control Period. The Authority shall, on the

basis of the said forecast RAB, determine for each Tariff Year t in a Control Period the terms RAB_t and RAB_{t-1} appearing in Clause 5.2.3.

- (b) **The Authority's judgements for forecasting the RAB shall be informed** by the periodic update reports of the Airport User Consultative Committee. In respect of projects that were substantially committed prior to the consultation protocol **coming into effect, the Authority's** judgements shall be subject to the consideration of such factors as the Authority may deem fit.
- (c) RAB_{t-1} for the first Tariff Year of the first Control Period shall be equal to the forecasted RAB at the end of the preceding financial year. The Initial RAB as calculated in Clause 5.2.4 shall be used for determining such forecasted RAB.

Explanation: For 2011-12 as the first Tariff Year of the first Control Period (i.e. 2011-12 to 2015-16), RAB_{tAB} (i.e. RAB_{2010e} .) for the first Tariff Year (i.e. 2011-12) is equal to the forecasted RAB at the end of the financial year 2010-11.

- (d) RAB_{t-1} for the first Tariff Year of subsequent Control Periods shall be the forecasted RAB at the end of the last Tariff Year of the last Control Period.
- (e) For projecting depreciation on forecast of assets to be commissioned or disposed off during a Control Period, it shall be assumed that such assets have been commissioned or disposed of half way through the Tariff Year and depreciation related to such assets shall be calculated pro-rata.

Illustration 4: The following example illustrates the approach for forecasting RAB for the Control period. The numbers in the illustration have been rounded to the nearest integers.

Forecast RAB							
		2010-11	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Opening RAB _{t-1}	OR	22,750	20,500	18,826	16,462	13,998	12,277
Commissioned Assets	CA	-	633	-	-	681	-
Depreciation	DR	2,250	2,307	2,364	2,364	2,402	731
Disposals	Di	-	-	-	100	-	-
Incentive Adjustments	IA	-	-	-	-	-	-
Closing RAB _t	CR=OR+CA- DR-Di+IA	20,500	18,826	16,462	13,998	12,277	11,547
RAB for calculating ARR	RA=(OR+CR)/2		19,663	17,644	15,230	13,138	11,912

- The example illustrates that RAB_{t-1} for the first Tariff Year of the first Control Period is equal to the forecasted RAB at the end of the financial year 2010-11 and the Initial RAB, as calculated in Clause 5.2.4, is used as the opening RAB for 2010-11.
- The example also illustrates that the RAB value, to be considered for the calculation of ARR for a Tariff Year t , shall be the average of the RAB value at the end of Tariff Year t and the RAB value at the end of the preceding Tariff Year $t-1$, as explained in the Clause 5.2.3.

Illustration 5: The following example illustrates the approach for forecasting depreciation for the Control Period. The numbers in the illustration have been rounded to the nearest integers except for those in percentage.

Forecast Depreciation									
	Original Cost of Fixed Assets	Useful Economic Life (EL)	Depreciation rate (DR=1/EL)	2010 -11	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Asset 1	15,000	25	4.00%	540	540	540	540	540	540
Asset 2	20,000	10	10.00%	1,710	1,710	1,710	1,710	1,710	-
Asset 3	633	5	20.00%	-	57	114	114	114	114
Asset 4	681	8	12.50%	-	-	-	-	38	77
			Total	2,250	2,307	2,364	2,364	2,402	731

- *The example illustrates that the depreciation is calculated using the straight line method based on the useful economic life of the asset.*
- *The example also illustrates that depreciation related to assets commissioned during a Control Period (Asset 3 and Asset 4) is calculated pro-rata assuming the commissioning or disposal of the asset at half way through the Tariff Year. Full depreciation of Asset 2 is in line with Clause 5.3*

5.2.6. Rolling forward the RAB

- The RAB for the determination of the Aggregate Revenue Requirement for the second and every subsequent Control Period shall be the rolled forward RAB value determined by the Authority for the previous Control Period.
- The Authority shall determine the value of roll forward RAB, prior to the start of subsequent Control Period, up to the last Tariff Year for which audited accounts are available and shall determine such value based on actual capital investment and actual disposal values as reviewed by the Authority, depreciation allowed for in the calculation of Aggregate Revenue Requirement made in the preceding determination and any incentive adjustments as may be determined by the Authority.
- The Authority shall also be informed by the periodic update reports of the Airport User Consultative Committee provided to the Authority under the consultation protocol.
- For each Tariff Year t , the RAB at the end of the Tariff Year shall be calculated as:

$$\begin{aligned} \text{RAB}_t &= \text{RAB}_{t-1} \\ &+ \text{Commissioned Assets} \\ &- \text{Depreciation} \end{aligned}$$

–Disposals
+Incentive Adjustments

Where:

RAB_t = Regulatory Asset Base at the end of Tariff Year t

RAB_{t-1} = Regulatory Asset Base at the end of Tariff Year t-1

Commissioned Assets: Represents investments brought into use during Tariff Year t, consistent with Clause 5.2.7 herein below.

Depreciation: Represents the amounts for depreciation as described in Clause 5.3 and allowed for in the calculation of Aggregate Revenue Requirement in respect of the Tariff Year, made in the preceding determination.

Disposals: Represents the higher of the proceeds or fair market value in respect of forecast disposals or deemed disposals (transfers out of the RAB) for Tariff Year t.

Incentive Adjustments: Represents other adjustments to reflect incentives that the Authority may have determined in the previous Multi Year Tariff Order or at any other time to encourage timely investment. For the purpose of ascertaining such adjustments, the Authority shall have due regard to effectiveness and efficiency of such investment. For example, if the Authority considered, after due consideration that it wants to encourage additional capacity in a terminal that is being constructed, it may specify a RAB adjustment that relates to the actual capacity delivered when it is complete rather than forecast capacity. Or it may specify an Incentive Adjustment, if the terminal opens before the expected date.

Illustration 6: The following example illustrates the approach for calculating roll forward RAB using actuals in latest available audited accounts for the Control period. The numbers in the illustration have been rounded to the nearest integers.

Roll Forward RAB							
		2010-11	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Opening RAB_{t-1}	OR	22,750	20,500	18,743	16,429	13,985	12,233
Commissioned Assets	CA	-	550	50	-	650	-
Depreciation	DR	2,250	2,307	2,364	2,364	2,402	731
Disposals	Di	-	-	-	80	-	-
Incentive Adjustments	IA	-	-	-	-	-	-
Closing RAB_t	CR=OR+CA- DR-Di+IA	20,500	18,743	16,429	13,985	12,233	11,502
RAB for calculating ARR	RA=(OR+CR)/2		19,622	17,586	15,207	13,109	11,868

- *The example illustrates that the RAB_{t-1} for the first Tariff Year of the first Control Period is equal to the rolled forward RAB at the end of the financial year 2010-11 and the Initial RAB as calculated in Clause 5.2.4 is used as the opening RAB for 2010-11.*
- *Opening RAB for the first Tariff Year of the second Control period shall be the closing RAB value (i.e. 11,502) of Tariff Year 5 of the first Control Period.*

5.2.7. Work In Progress assets

- (a) Work in Progress Assets (WIPA) are such assets as have not been commissioned during a Tariff Year or Control period, as the case may be. Work in Progress assets shall be accounted for as:

$$\begin{aligned}
 WIPA_t = & WIPA_{t-1} \\
 & + \text{Capital Expenditure (Capex)} \\
 & + \text{Financing Allowance} \\
 & - \text{Accumulated Capital Receipts of the nature of contributions from stakeholders (SC)}
 \end{aligned}$$

–Commissioned Assets (CA)

Where:

WIPA_t: Work in Progress Assets at the end of Tariff Year t

WIPA_{t-1}: Work in Progress Assets at the end of Tariff Year t-1

Capital Expenditure: Expenditure on capital projects and capital items made during Tariff Year t.

The Financing Allowance shall be calculated as follows

$$\text{Financing Allowance} = R_d \times \left(WIPA_{t-1} + \frac{\text{Capex} - SC - CA}{2} \right)$$

Where **R_d** is the cost of debt determined by the Authority according to Clause 5.1.4.

SC are Capital Receipts pertaining to the capital WIP included in the scope of the RAB (including capital grants and subsidies).

CA are Commissioned Assets which pertain to the accumulated value of the WIPA attributable to all assets that have been put into effective operation during Tariff Year t.

- (b) Assets acquired or commissioned within the same Tariff Year, (including such assets as may be commissioned immediately upon acquisition) shall be included both in Capital Expenditure and Commissioned Assets.
- (c) The Authority shall determine a forecast for Work in Progress assets (including value of Commissioned Assets in each Tariff Year) in the determination of the Aggregate Revenue Requirement and the determination of forecast RAB.

Illustration 7: The following example illustrates this approach for calculation of Work in progress assets, financing allowance and commissioned assets. The numbers in the illustration have been rounded to the nearest integers.

Forecast Work in Progress Assets							
		2010 -11	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Opening WIP: WIP_{t-1}	OW	-	-	-	558	638	-
Capital Expenditure	CE	-	833	521	-	-	-
Financing Allowance	FA = $R_d \times (OW + (CE - CA - SC)/2)$	-	-	37	80	43	-
Capital Receipts	SC	-	200	-	-	-	-
Commissioned Assets	CA	-	633	-	-	681	-
Closing WIP: WIP_t	CW = OW + CE + FA - SC - CA	-	-	558	638	-	-

- *The cost of debt, R_d , used for calculation of financing allowance, is the cost of debt determined by the Authority under Clause 5.1.4.*
- *The example illustrates that those assets, which have been acquired or commissioned within the same Tariff Year (i.e. Tariff Year 1), have been included both in Capital Expenditure and Commissioned Assets.*
- *The value of commissioned assets, as calculated, shall be used for forecasting RAB for the Control Period.*

5.3. Depreciation (D)

5.3.1. Depreciation shall be allowed for calculating Aggregate Revenue Requirement on a forecast basis for each Tariff Year in a Control Period, for assets included in the scope of RAB, and shall be calculated using the straight line method of depreciation on the amount of original cost of the existing fixed assets together with forecast additions less disposals of fixed assets:

Explanation: For avoidance of doubt, it is clarified that depreciation shall not be provided on assets funded through pre-funding receipts such as levy of Development Fee and other capital receipts of the

nature of contributions from stakeholders like subsidies/ grants from the government, if any.

- 5.3.2. Depreciation rates shall be based on reasonable estimates of the useful economic life of the assets and may be referenced to the depreciation rates provided in the Companies Act, 1956 or to any other empirical evidence.
- 5.3.3. The minimum residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the original cost of the asset.
- 5.3.4. Land is not a depreciable asset and its cost shall be excluded from the original cost while computing the depreciable value of the asset.
- 5.3.5. The forecast depreciation used in the determination of Aggregate Revenue Requirement for each Tariff Year of the Control Period shall be used in the calculation of the roll forward RAB at the end of the Control Period according to Clause 5.2.6.
- 5.4. Operation and Maintenance Expenditure (O)
 - 5.4.1. The operation and maintenance expenditure shall include all expenditures incurred by the Airport Operator(s) including expenditure incurred on statutory operating costs and other mandated operating costs as defined in Clause 5.4.2.
 - 5.4.2. The assessment of operation and maintenance expenditure by the Authority shall include a review of the forecast of such expenditure as submitted by the Airport Operator based on the following principles:
 - (a) Assessment of baseline operation and maintenance expenditure based on review of actual expenditure indicated in last audited accounts, and prudence check inter alia with respect to underlying factors impacting variance over the preceding year(s) including treatment for one-time costs or atypical costs. For avoidance of doubt, the operation and maintenance expenditure to be assessed will be limited to only those expenditure that relate to assets and services

taken into consideration for determination of Aggregate Revenue Requirement;

- (b) Assessment of efficiency improvement with respect to such costs based on review of factors such as trends in operating costs, productivity improvements, cost drivers as may be identified, and other factors as may be considered appropriate; and
- (c) Assessment of other mandated operating costs or statutory operating costs, where (i) subject to Clause 5.4.5, other mandated operating costs are costs incurred in compliance to directions received from regulatory agencies including Director General Civil Aviation; and (ii) statutory operating costs are costs incurred on account of fees, levies, taxes and other such charges, directly imposed on the Airport Operator by the regulatory agencies and directly paid for by the Airport Operator.

5.4.3. The Authority shall consider interest on short term loans, generally raised towards working capital with a maturity of less than one year, as operation and maintenance expenditure to address the working capital requirement.

The Airport Operator shall submit to the Authority the proposed levels of working capital requirements and shall demonstrate that the proposed working capital loans are not excessive in relation to such levels of working capital. The Authority shall not consider any allowance provided for allocations for bad debts in the working capital. The Authority shall review and assess the levels of projected working capital requirements and shall consider cost of working capital loans as deemed appropriate. However, such loans would not be considered in the calculation of the cost of debt.

5.4.4. The operation and maintenance expenditure related to any service(s) provided by the Airport Operator that are subject to separate control and regulated as per Clause 5.7, shall be excluded from the determination of ARR.

5.4.5. The operation and maintenance expenditure related to mandated security expenditure as laid down by the Government/ Bureau of Civil Aviation Security (BCAS) shall be excluded from the determination of ARR. Such operating costs shall be considered in determination of the PSF charge and the Authority will separately issue the guidelines for the same.

5.5. Taxation (T)

5.5.1. Taxation represents payments by the Airport Operator in respect of corporate tax on income from assets/ amenities/ facilities/ services taken into consideration for determination of Aggregate Revenue Requirement.

5.5.2. The Authority shall review forecast for corporate tax calculation with a view to ascertain inter alia the appropriateness of the allocation and the calculations thereof.

Explanation: For avoidance of doubt, it is clarified that any interest payments, penalty, fines and other such penal levies associated with corporate tax, shall not be taken into consideration for calculation of Taxation.

5.6. Revenues from services other than aeronautical services (NAR)

5.6.1. **The Authority's review of forecast of revenues from services** other than aeronautical services may include scrutiny of bottom-up projections of such revenues prepared by the Airport Operator, benchmarking of revenue levels, commissioning experts to consider where opportunities for such revenues are under-exploited, together with the review of other forecasts for operation and maintenance expenditure, traffic and capital investment plans that have implications for such activities.

5.6.2. The Authority shall also include all revenues (including revenue share, royalty and dividend) earned by the Airport Operators from independent service provider(s) for service(s) provided for ground handling services relating to aircraft, passengers and cargo at a Major

Airport; the cargo facility at a Major Airport; and supplying fuel to the aircraft at a Major Airport, for calculation of overall passenger yield.

5.7. Regulated Services subject to separate control (RSC)

5.7.1. For any service provided by the Airport Operator for (i) ground handling services relating to aircraft, passengers and cargo at an airport; (ii) the cargo facility at an airport; and (iii) supplying fuel to the aircraft at an airport, the Authority shall follow the regulatory approach and process for tariff determination as mentioned in the Direction No 04/2010-11 on **“Terms and Conditions for Determination of Tariff for Services Provided for Cargo Facility, Ground Handling, and Supply of Fuel to the Aircraft) Guidelines, 2011”**.

Provided that, for the submission of Multi Year Tariff Proposal for such services, the Airport Operator shall prepare separate audited pro-forma accounts clearly segregating and allocating the Regulatory Building Blocks related to such services. Detailed justification and methodology for such allocation must also be provided.

Explanation: For avoidance of doubt, it is clarified that the Authority shall regulate tariffs such as fuel throughput charge, by whatsoever name called, in terms of these Guidelines.²

5.7.2. Preparation of separate accounts

- (a) For the services indicated in Clause 5.7.1, the Airport Operator shall prepare separate audited proforma accounts clearly stating the revenues, costs, assets and liabilities of such services separately, together with traffic volumes for the year.
- (b) The Airport Operator shall prepare such proforma accounts for the financial year 2010-11, as a starting point of forecast for the first Control Period.

² Paragraph 15.19 of Order Number 13/2010-11 of the Authority issued on 12-Jan-2011

- (c) These accounts shall be prepared on an historical cost basis without any revaluations of assets. The basis shall also be such that the revenues, costs, assets and liabilities shown are reasonably attributable to the relevant services. The accounts so produced shall be approved and signed by Board of Directors of the Airport Operator prior to submission to the Authority. The Authority may require such accounts also to be subject to an independent audit.
- (d) The accounts shall set out and explain the basis of accounting (Accounting and Allocation policies) for all relevant activities and facilities either exclusively used for provision of such services or shared with other activities of the Airport Operator.

6. Procedure for determination of Tariff(s) for Regulated Service(s)

6.1. The Authority shall determine Aggregate Revenue Requirement as specified in Clause 4.3 and the yield per passenger (**Y**), to be specified in the Multi Year Tariff Order for the Control Period as specified herein below.

6.2. Yield per passenger (**Y**)

6.2.1. The Authority shall determine the yield per passenger (**Y**) for the Control Period using the following formula:

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

Where:

Present value (PV) of **ARR_t** for a Tariff Year t is being determined at the beginning of the Control Period and the discounting rate for calculating PV is equal to the Fair Rate of Return determined by the Authority according to Clause 5.1;

VE_t is the Volume in a Tariff Year t as estimated by the Authority in the Multi Year Tariff Order;

ARR_t is the Aggregate Revenue Requirement for Tariff Year t.

6.2.2. With reference to Clause 6.4, the Authority shall determine X for each Tariff Year and Y1 such that yield per passenger (**Y**) as determined in Clause 6.2 is equal to:

$$\text{Yield per passenger (Y)} = \frac{\sum_{t=1}^5 PV(VE_t \times Y_{t,EWP1})}{\sum_{t=1}^5 (VE_t)}$$

Where:

VE_t is the Volume as estimated by the Authority in a Tariff Year t in the Multi Year Tariff Order;

$Y_{t,EWPI}$ is the yield per passenger for Tariff Year t calculated according to Clause 6.4;

Present value (PV) of $(VE_t \times Y_t)$ for a Tariff Year t is being determined at the beginning of the Control period and the discounting rate for calculating PV is equal to the Fair Rate of Return determined by the Authority according to Clause 5.1.

- 6.3. As part of Multi Year Tariff Proposal, the Airport Operator shall submit to the Authority, the forecasted changes in WPI (for each Tariff Year of the Control Period) as used in the calculation of Regulatory Building Blocks.
- 6.4. The Authority shall review the forecast of changes in WPI as submitted by the Airport Operator and shall determine the yield per passenger for the second Tariff Year onwards using the following formula:

$$Y_{t,EWPI} = Y_{t-1,EWPI} \times (1 + WPI_t - X_t)$$

where:

$Y_{t,EWPI}$ is the yield per passenger for the Tariff Year t with forecasted change in WPI;

$Y_{t-1,EWPI}$ is the yield per passenger for the Tariff Year preceding Tariff Year t and Y_1 for the first Tariff Year shall be determined by the Authority in Multi Year Tariff Order (in accordance with Clause 6.5);

WPI_t is the forecast of change in WPI for Tariff Year t as determined by the Authority;

X_t is determined by the Authority for Tariff Year t in the Multi Year Tariff Order.

Explanation: X_t is a term which shall be determined, by the Authority, separately for each Tariff Year t in the Multi Year Tariff Order, and represents an underlying rate reduction in the yield per passenger (or rate of increase in the event X_t is negative). X_t is expressed as a

percentage such that 10% is interpreted in formulae as the decimal number 0.1.

The Authority will set the value of X taking into consideration number of factors as indicated in Clause 6.5.

- 6.5. The Authority shall set the value of yield per passenger for the first Tariff Year (Y_1) and X_t (for each Tariff Year t) taking into consideration number of factors including: (i) yield per passenger (Y) as determined in Clause 6.2; (ii) the profile of price path within the Control Period; (iii) the current level of Tariff(s); (iv) the projected capital investment; (v) the targeted efficiency improvement; and (vi) any other relevant factors.

The objective of targeted efficiency improvement, in the determination of X , is to simulate a competitive environment in a non-competitive situation by allowing Airport Operator to raise Tariff(s) to offset cost increases, but by a rate lower than inflation in order to encourage greater efficiency. The targeted efficiency improvement can be high, in case the Authority considers that there is high scope for efficiency and the Airport Operator needs to make more effective or efficient use of its resources. Also, the targeted efficiency improvement can be low, in case the Authority considers there is limited scope for efficiency improvement.

The assessment of efficiency improvement can be complex and therefore requires a variety of considerations to be taken into account including key performance indicators relating to trends in costs per passenger, efficiency factors applicable to other entities in the country, impact of various levels of efficiency factor on revenues, operation and maintenance expenditures and returns and historical profitability and performance.

Illustration 8: The following example illustrates the approach for calculating yield per passenger(Y), Y_1 and X_t . The Aggregate Revenue Requirement and Units in the illustration have been rounded to the nearest integers and the yield per passenger has been rounded to two decimal places.

Yield per passenger (Y)						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Aggregate Revenue Requirement	ARR	6,660	6,488	6,450	6,376	4,845
Estimated Volume	VE	1,000	1,150	1,323	1,521	1,749
Present Value (ARR)	PV (ARR)	6,660	5,593	4,793	4,085	2,676
$\Sigma PV(ARR)$	23,807					
ΣVE	6,743					
$Y = \Sigma PV(ARR) / \Sigma VE$	3.53					

Y1 and X						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Forecasted Change in WPI	WPI_t	10%	10%	10%	10%	10%
X	X_t	2%	2%	2%	2%	2%
Yield per passenger for Tariff Year t	$Y_{t, EWPI}$	4.13	4.46	4.82	5.21	5.62
Revenue = VE x Y	$VE \times Y$	4,134	5,134	6,379	7,920	9,836
Present Value (VE x Y)	PV (VE x Y)	4,134	4,426	4,741	5,074	5,432
$\Sigma PV(VE \times Y)$	23,807					
ΣVE	6,743					
$Y = \Sigma PV(VE \times Y) / \Sigma VE$	3.53					

- *Y1 and X are calculated considering various factors such that*

$$\Sigma PV(ARR) / \Sigma VE = \Sigma PV(VE \times Y) / \Sigma VE$$

- *In this illustration, for simplicity, X has been taken as same for all 5 years*
- *Yield per passenger for the second Tariff Year onwards (i.e. Y2 to Y5) is calculated according to Clause 6.4.*
- *The discounting rate for calculating PV is equal to the Fair Rate of Return determined by the Authority according to Clause 5.1. In this illustration, 16% FRoR from illustration 2 has been used.*

6.6. The Authority shall review and approve the Tariff(s) for a Tariff Year taking into account the: Annual Tariff Proposal and Annual Compliance Statement

submitted by the Airport Operator to the Authority according to Clause 6.8 and Clause 6.11, respectively and, such other information as the Authority may consider necessary.

6.7. The Authority shall follow the procedure as specified herein below for determination and adjustments to Tariff(s) on an annual basis:

6.7.1. With respect to Annual Tariff Proposal, according to Clause 6.8;

6.7.2. With respect to Annual Compliance Statement, according to Clause 6.11.

6.8. Annual Tariff Proposal

6.8.1. Prior to the start of each Tariff Year, the Airport Operator(s) shall submit, for approval by the Authority, an Annual Tariff Proposal. The proposal shall contain calculation of Estimated Maximum Allowed Yield per passenger (EMAY) according to Clause 6.9, to be recovered during the Tariff Year, and a detailed break-up of the Tariff(s), from which it proposes to recover the EMAY.

6.8.2. The Annual Tariff Proposal shall contain the various Tariff(s) as proposed by the Airport Operator to be charged during the Tariff Year. Such Tariff(s) shall include inter alia Landing, Housing and Parking Charges, Aerobridge Charges and Fuel Throughput Charge as well as the conditions for such Tariff(s) such as charge per flight or weight, etc. The Airport Operator shall also demonstrate that the Tariff(s) as proposed will ultimately result in a yield per passenger equal to or less than the EMAY for that Tariff Year. The Annual Tariff Proposal may also include a proposal, if any, for levy of User Development Fee.

6.8.3. The Airport Operator(s) shall also submit, as part of Annual Tariff Proposal, an Annual PSF Proposal for determination of Passenger Service Fee (PSF) as per the Guidelines to be issued by the Authority separately.

6.8.4. The Airport Operator(s) shall also submit information relating to the list of services or charges having a sub-cap within the overall yield per passenger, such as User Development Fee.

6.8.5. The User Development Fee (UDF) and other aeronautical charges cover the same range of services, and therefore UDF shall be considered as a revenue enhancing measure to ensure economic viability of the airport operations and shall be allowed only in specific cases upon due consideration.

Explanation: In a case where the Authority approves the proposal to levy UDF, it shall determine the rate of UDF so that the revenue is so enhanced so as to ensure that the Airport Operator is able to obtain Fair Rate of Return on the RAB, as per these Guidelines, over the relevant period.

6.8.6. The Airport Operator shall substantiate with rationale, in the Annual Tariff Proposal, need for levying User Development Fee as against the various other aeronautical charges possible. The rationale shall clearly explain inter alia the reasons for direct levy of charges to passengers, the extent of charges to be recovered from the airlines and from the passengers and the reasons for Airport Operator not being able to recover such charges totally through airline charges.

Note: The Authority especially invites comments by the stakeholders in operationalising the UDF. Stakeholders may submit their evidence based views, feedbacks, justifications, regarding the norms, if any, which may be adopted for distribution of Tariffs between airlines related charges and UDF; norms, if any, which may be applied for distribution of UDF between domestic passengers and international passengers.

6.8.7. The Authority shall consider pre-funding (levy of Development Fee) to be a measure of last resort and the Airport Operator shall submit justifications, after consultation with Users, that the pre-funding is the most appropriate funding option for the project in terms of size of the project, its importance, inability to finance the project through other options and impact on end user charges of the levy vis-a-vis if the project were to be financed through other sources / options. Such justifications shall include inter alia:

- (a) Consultation/ Agreements with Users for undertaking the project through pre-funding
- (b) Compelling reason for not undertaking such large-scale investment in multiple phases.
- (c) Justification that all available financing options have been explored and exhausted including inter alia,
 - (i) equity contribution
 - (ii) borrowings

6.8.8. The Authority understands that the project of a nature where pre-funding may be required would be planned sufficiently well in advance and the need, if any, for pre-funding should be projected at the time of Multi Year Tariff Proposal. Accordingly, such a proposal for new pre-funding levy or an increase in an existing pre-funding levy during a Control Period shall not be entertained by the Authority in normal circumstances. However, in exceptional circumstances, where the Authority agrees to consider a new pre-funding levy or an increase in an existing pre-funding levy during a Control Period, it may require a re-determination of the Aggregate Revenue Requirement i.e. a full reopening of the determination of the Aggregate Revenue Requirement.

6.8.9. The contribution of pre-funding levy (DF) in a capital investment shall not be included in the RAB.

6.8.10. The Annual Tariff Proposal shall be submitted in the form and manner provided in Section A5.9.

6.8.11. The Authority shall review the Annual Tariff Proposal and make an Annual Tariff Order with such adjustments, as may be necessary, to the Tariff(s) proposed by the Airport Operator(s).

6.9. Estimated Maximum Allowed Yield per passenger

6.9.1. The Airport Operator(s) shall calculate the Estimated Maximum Allowed Yield per passenger $EMAY_t$ for each Tariff Year t using the following formula:

$$EMAY_t = Y_{t,EWPI} + K_{t,EV}$$

where,

$Y_{t,EWPI}$ is the yield per passenger, calculated according to Clause 6.4;

$K_{t,EV}$ is the recovery error correction factor, calculated at the beginning of the Tariff Year t according to Clause 6.10 (as against $K_{t,AV}$ which will be calculated at the end of Tariff Year t according to Clause 6.18).

6.10. Recovery Error Correction Factor (with estimated Volume), $K_{t,EV}$

6.10.1. The recovery error correction factor is an adjustment to the Estimated Maximum Allowed Yield per passenger, calculated using the error correction term of Tariff Year $t-2$ and the compounding factor, according to the formula in Clause 6.10.2. The error correction term shall be calculated according to Clause 6.20 and indicates the quantum of over-recovery or under-recovery due to increase or decrease respectively of Actual Yield per passenger, determined as per Clause 6.19, with respect to Actual Maximum Allowed Yield per passenger in the Tariff Year, determined as per Clause 6.12.

6.10.2. The recovery error correction factor ($K_{t,EV}$), as indicated in the formula in Clause 6.9.1, shall be calculated as under:

$$K_{t,EV} = \frac{E_{t-2} \times (1 + r)^2}{VE_t}$$

Where:

E_{t-2} is the error correction term indicating the quantum of actual over-recovery or under-recovery in the Tariff Year t-2, calculated according to Clause 6.20.

$E_{t-2} = 0$ when t is the first or second Tariff Year of the first Control Period.

VE_t is the estimated Volume, used to determine the yield per passenger in Tariff Year t by the Authority in the Multi Year Tariff Order.

r is the compounding factor for over or under recovery, as the case may be, and is equal to the Fair Rate of Return as applicable for the relevant Control Period and as determined by the Authority according to Clause 5.1.

Explanation: The recovery error correction factor, K, secures the Actual Maximum Allowed Yield per passenger approach by ensuring that:

- (a) Over-recovery with respect to the Actual Maximum Allowed Yield per passenger in any one Tariff Year automatically results in an appropriate reduction in the Estimated Maximum Allowed Yield per passenger for a subsequent Tariff Year, irrespective of the reasons for such over-recovery.
- (b) Any discounts or adjustments made in invoices to / payments by end users against approved tariffs shall not be compensated.
- (c) Under-recovery, if any, shall be corrected only on account of terms factored through the Actual Maximum Allowed Yield per passenger. Therefore, under-recovery for any factors like change in traffic mix etc. shall not be compensated. Adjustments shall only be given for under-recovery in any one Tariff Year on account of following terms:
 - (i) Change in yield per passenger for actual change in WPI according to Clause 6.13;

- (ii) Forecast error correction according to Clause 6.15;
- (iii) Other mandated operating costs correction according to Clause 6.16;
- (iv) Statutory operating costs correction according to Clause 6.17; and
- (v) Change in recovery error correction factor, for Tariff Year t-2, for actual Volume according to Clause 6.18.

Adjustments at (i) to (v) as above, subject to a cap of AMAY, shall automatically result in an appropriate increase in the Estimated Maximum Allowed Yield per passenger for a subsequent Tariff Year.

- (d) In case the Tariffs are so proposed by the Airport Operator in an Annual Tariff Proposal, that they result in a yield lower than the Estimated Maximum Allowed Yield for that Tariff Year, correction for such under-recovery shall normally not be allowed.

Illustration 9: The following example illustrates the approach for calculating Estimated Maximum Allowed Yield per passenger (EMAY). The numbers in the illustration have been rounded to the nearest 2 decimal places.

Estimated Maximum Allowed Yield per passenger						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per passenger for Tariff Year t	$Y_{t,EWPI}$	4.13	4.46	4.82	5.21	5.62
Error correction term for Tariff Year t-2	E_{t-2}	-	-	25.73	(455.74)	105.70
Compounding Factor	$r = FRoR$	16.0%	16.0%	16.0%	16.0%	16.0%
$E_{t-2} \times (1+r^2)$	A	-	-	34.62	(613.25)	142.22
Estimated Volume	VE	1,000	1,150	1,323	1,521	1,749
Recovery Error Correction Factor	$K_{t,EV}=A/VE$	-	-	0.03	(0.40)	0.08
Estimated Maximum Allowed Yield per passenger	$EMAY_t$	4.13	4.46	4.85	4.80	5.71

- *Yield per passenger for the purpose of calculating Estimated Maximum Allowed Yield per passenger shall be determined by the Authority in the Multi Year Tariff Order. The calculation of the yield per passenger, used in the illustration above, is given in illustration 8.*
- *Compounding factor, r , for error correction term shall be equal to the FRoR as calculated in Clause 5.1.*
- *Error correction term for Tariff Year $t-2$, calculated in Clause 6.20, is used for calculating EMAY for Tariff Year t .*
- *E_{t-2} for Tariff Year 1 and Tariff Year 2 of the First Control Period is equal to zero (0)*
- *The Tariff(s) proposed for the Tariff Year shall be consistent with Estimated Maximum Allowed Yield per passenger.*

6.11. Annual Compliance Statement

- 6.11.1. The primary purpose of annual compliance statement shall be to calculate the Actual Maximum Allowed Yield per passenger and error correction term for the Tariff Year t . Based on the annual compliance statement, the Authority shall review and approve such adjustments to the Estimated Maximum Allowed Yield per passenger and Tariff(s) applicable for a subsequent Tariff Year, as may be required.
- 6.11.2. The Airport Operator(s) shall submit the Annual Compliance Statement, in the form and manner provided in Section A5.10, of Appendix 5 to the Authority. In addition, the Airport Operator(s) shall submit copies of annual audited accounts and any other information, which the Authority may from time to time specify.
- 6.11.3. The Annual Compliance Statement shall be submitted by an Airport Operator in respect of the actuals based on its annual audited accounts for a particular Tariff Year and shall clearly indicate the calculation of the following:

- (a) Yield per passenger $Y_{t, AWPI}$, calculated for actual change in WPI according to Clause 6.13;
- (a) Service quality rebate term Q_t , calculated according to Clause 6.14;
- (b) Forecast error correction term F_t , calculated according to Clause 6.15;
- (c) Other mandated operating cost correction term OM_t for the Tariff Year t , calculated according to Clause 6.16;
- (d) Statutory operating costs correction term U_t for the Tariff Year t , calculated according to Clause 6.17;
- (e) Recovery error correction factor $K_{t,AV}$, calculated according to Clause 6.18.

6.11.4. The Annual Compliance Statement shall also provide details of the Actual Maximum Allowed Yield per passenger (AMAY) calculated according to Clause 6.12, Actual Yield per passenger (**AY**) calculated according to Clause 6.19 and the error correction term (**E**) calculated according to Clause 6.20.

6.12. Actual Maximum Allowed Yield per passenger

6.12.1. The Actual Maximum Allowed Yield per passenger for a Tariff Year shall be determined after the audited accounts in respect **of** that Tariff Year becomes available.

6.12.2. The Actual Maximum Allowed Yield per passenger (AMAY) shall be calculated as under:

$$AMAY_t = [Y_{t,AWPI} \times (1 - Q_t) \times (1 + F_t)] + OM_t + U_t + K_{t,AV}$$

Where in respect of Tariff Year t :

$AMAY_t$ is the Actual Maximum Allowed Yield per passenger for Tariff Year t;

$Y_{t,AWPI}$ is the yield per passenger, calculated according to Clause 6.13, for the Tariff Year t at the end of such year;

Q_t is the service quality rebate term, calculated according to Clause 6.14;

F_t is the forecast error correction term, calculated according to Clause 6.15;

OM_t is the other mandated operating cost correction term, calculated according to Clause 6.16;

U_t is the statutory operating cost correction term calculated, according to Clause 6.17;

$K_{t,AV}$ is the recovery error correction factor, calculated according to Clause 6.18 (as against $K_{t,EV}$ that will be calculated at the beginning of the Tariff Year t according to Clause 6.10).

6.13. Yield per passenger ($Y_{t,AWPI}$) (with actual WPI at the end of the Tariff Year)

The yield per passenger, with actual WPI, for determining the Actual Maximum Allowed Yield per passenger at the end of each Tariff Year in the Control Period shall be calculated as under:

$$Y_{t,AWPI} = Y_{t-1,AWPI} \times (1 + WPI_t - X_t)$$

Where:

$Y_{t,AWPI}$ is the yield per passenger for the Tariff Year t with actual change in WPI;

$Y_{t-1,AWPI}$ is the yield per passenger for the Tariff Year preceding Tariff Year t, calculated in accordance with this Clause, and Y_1 for the first

Tariff Year shall be determined by the Authority in Multi Year Tariff Order (in accordance with Clause 6.2.2) and not calculated as per the above formula;

WPI_t is the average of the monthly levels of the WPI during Tariff Year t divided by the average of the monthly levels of the WPI during Tariff Year t-1, less 1. The average will be calculated by taking one twelfth of the sum of the WPI statistics for the months April to March of Tariff Year t;

X_t is a term which shall be determined, by the Authority, separately for each Tariff Year t in the Multi Year Tariff Order, and represents an underlying rate reduction in the yield per passenger (or rate of increase in the event X_t is negative). X_t is expressed as a percentage such that 10% is interpreted in formulae as the decimal number 0.1.

Illustration 10: The following example illustrates the approach for calculating yield per passenger with actual change in WPI at the end of Tariff Year. The numbers in the illustration have been rounded to the nearest 2 decimal places.

Yield per passenger with actual change in WPI					
	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per passenger at the beginning of CP	4.13	4.46	4.82	5.21	5.62
Actual Change in WPI	7.6%	12.7%	10.2%	9.2%	10.0%
Yield per passenger for actual change in WPI	4.13	4.36	4.83	5.23	5.60

6.14. The Service Quality Rebate

6.14.1. The Service Quality Rebate term is an adjustment, to the yield per passenger for the purpose of calculating error correction term in the event that the Airport Operator(s) does not achieve certain service quality standards specified by the Authority. Such quality standards and

their measurement mechanisms are specified in Appendices 2, 3 and 4 to these Guidelines.

6.14.2. The objective parameters shall be monitored monthly along with relevant benchmarks. In the event that the Airport Operator(s) performance falls below such benchmarks in any month, a percentage rebate shall be applicable for each default parameter. The maximum rebate percentage for objective parameters calculated for the month shall be capped at 1.5%. The monthly rebate applicable for month i (in year t) shall be calculated as:

Monthly Rebate on objective parameters, MRO_i

$$= MIN \left[1.5\% , \sum_{All\ Objective\ p} P_p \times MOS_{p,i} \right]$$

Where:

P_p is the maximum rebate proportion for objective parameter p specified in Appendix 2 to these Guidelines, fixed by the Authority separately for each objective parameter p at the time of determining the Multi Year Tariff Framework.

$MOS_{p,i} = 0$ if service standard for objective parameter p in month i is achieved;

$MOS_{p,i} = 1$ otherwise.

6.14.3. The subjective parameter shall be monitored quarterly against an overall benchmark of 3.50 or 3.75, as the case may be, on the Airports **Council International's Airport Service Quality (ACI ASQ)** survey for subjective quality of service assessment to be undertaken by all Airport Operators. In the event that the Airport Operator(s) performance falls below such benchmark in a quarter, a percentage rebate shall be applicable for such default. The monthly rebate applicable for month j (in year t) shall be calculated as:

Monthly rebate on subjective parameter, $MRS_j = 2.5\% \times MSS_{p,j}$

Where

$MSS_{p,j} = 0$ if service standard for the overall benchmark in quarter p is achieved;

$MSS_{p,j} = 1$ otherwise.

6.14.4. The adjustment shall be implemented by multiplying the yield per passenger by the factor $(1 - Q_t)$ in the formula in Clause 6.12.2. The term Q_t is defined as:

$$Q_t = \frac{1}{12} \times \sum_{i=1 \text{ to } 12} MRO_i + \frac{1}{12} \times \sum_{j=1 \text{ to } 12} MRS_j$$

Where:

MRO_i is the Monthly Rebate Objective for month i (in year t), calculated as described in Clause 6.14.2;

MRS_j is the Monthly Rebate Subjective for month j (in year t), calculated as described in Clause 6.14.3.

Illustration 11: The following example illustrates the approach for calculating Service Quality Rebate Term at the end of Tariff Year.

Service Quality Rebate Term						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Annual objective parameter rebate (max 1.5%)	a	1%	1%	0%	0%	0%
Annual subjective parameter rebate (max 2.5%)	b	2%	.5%	0%	0%	0%
Service quality rebate term	$Q_t = a+b$	3%	1.5%	0%	0%	0%

6.15. Forecast Error Correction Term

6.15.1. The forecast error correction term is an adjustment, to the yield per passenger for the purpose of calculating error correction term. The term shall adjust for error in forecast in the event that the actual Volume in a Tariff Year differs from the forecast Volume in the Multi Year Tariff Order significantly (by more than a specified threshold proportion). The term shall correct for half of such a difference beyond the specified threshold.

6.15.2. Under the above mentioned forecast error correction approach, if actual Volume remains within the upper and lower bands, specified in the Multi Year Tariff Order, there would be no adjustment. However, if actual Volume is beyond the bands, variation shall be shared between the User(s) and the Airport Operator(s).

6.15.3. The forecast error correction term (F_t) shall be calculated as under:

$$F_t = 0.5 \times FH_t \text{ or } 0.5 \times FL_t, \text{ as the case may be}$$

$$\text{If } V_t \geq VH_t$$

$$FH_t = -\left(\frac{V_t - VH_t}{VE_t}\right)$$

$$\text{If } V_t < VL_t$$

$$FL_t = \left(\frac{VL_t - V_t}{VE_t}\right)$$

$$VH_t = VE_t \times (1 + CF)$$

$$VL_t = VE_t \times (1 - CF)$$

$$\text{And, if } VL_t \leq V_t < VH_t$$

$$F_t = 0$$

Where:

V_t is the actual Volume in Tariff Year t and is the divisor in the calculation of the Actual Yield per passenger according to Clause 6.19.

VE_t is the estimated Volume, used to determine the yield per passenger in Tariff Year t by the Authority in the Multi Year Tariff Order.

CF is a term determined by the Authority at the time of determination of Aggregate Revenue Requirement in the Multi Year Tariff Order, and is the threshold proportion for the correction factor expressed in decimals. The value of CF shall be same for calculating the upper and lower band for the purpose of forecast error correction.

VH_t is the value of upper band of the forecast Volume, used for forecast error correction.

VL_t is the value of lower band of the forecast Volume, used for forecast error correction.

FH_t is the proportion of variation in actual Volume over the value of upper band of the forecast Volume.

FL_t is the proportion of variation in actual Volume under the value of lower band of the forecast Volume.

Illustration 12: The following example illustrates the approach for calculating the Traffic Forecast Error Correction term. The numbers in the illustration have been rounded to the nearest 2 decimal places.

Forecast Error Correction Term						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Actual volumes	V	990	990	1300	1700	1400
Volumes Estimated	VE	1,000	1,150	1,323	1,521	1,749
Upper band	$VH = VE \times 1.1$	1100	1265	1455	1673	1924
Lower band	$VL = VE \times 0.9$	900	1035	1191	1369	1574
Upper band correction term	FH	-	-	-	(0.02)	0.00
Lower band correction term	FL	-	0.04	-	0.00	0.10
Forecast Error Correction	$F = 0.5 \times FH_t$ or	-	-	-	(0.01)	-
	$F = 0.5 \times FL_t$	-	0.02	-	(0.01)	0.05

- The illustration assumes that the Authority sets the upper and lower bands at 10% of the forecasted Volume.
- The upper and lower bands on the correction term are calculated according to Clause 6.15.3.

6.16. Other Mandated Operating Cost Correction Term

6.16.1. The other mandated operating cost correction term will secure the required correction for any changes in other mandated operating costs, other than security operating costs, by making adjustments to the Actual Maximum Allowed Yield per passenger. Such other mandated operating costs shall cover costs incurred due to directions issued by regulatory agencies like DGCA. Any additional other mandated capital expenditure incurred by the Airport Operator shall not be considered for correction within the Control Period.

6.16.2. For any Tariff Year t , adjustment shall be made for any difference between the actual other mandated operating costs incurred in Tariff Year t and the other mandated operating costs forecasted for Tariff Year t by the Authority at the time of determination of Aggregate Revenue Requirement in the Multi Year Tariff Order.

6.16.3. The adjustment shall be made through the term **OM_t** in the formula in Clause 6.12.2 and shall be calculated as under:

$$OM_t = \frac{OMC_t - OME_t}{V_t}$$

Where:

OME_t is the forecast other mandated operating costs determined by the Authority for the Tariff Year t at the time of determination of Aggregate Revenue Requirement in the Multi Year Tariff Order;

OMC_t is the actual other mandated operating costs incurred by the Airport Operator in Tariff Year t;

V_t is the actual Volume for the Airport Operator in Tariff Year t and is the divisor in the calculation of the Actual Yield per passenger according to Clause 6.19.

6.17. Statutory Operating Cost Correction Term

6.17.1. The statutory operating cost correction term will secure the correction for any changes in statutory operating costs, by making adjustments to the Actual Maximum Allowed Yield per passenger. Such statutory operating costs shall cover costs related to taxation by Central or State Government, except taxes on corporate income, directly imposed on and paid for by the Airport Operator on final product/ service provided by the Airport Operator. Any additional statutory capital expenditure incurred by the Airport Operator shall not be considered for correction within the Control Period. For avoidance of doubt, any change in Statutory Operating Cost relating to any input products or services procured by the Airport Operator shall not be covered.

6.17.2. For any Tariff Year t, adjustment shall be made for any difference between the actual statutory operating costs incurred in Tariff Year t and the statutory operating costs forecasted for Tariff Year t by the

Authority at the time of determination of Aggregate Revenue Requirement in the Multi Year Tariff Order.

6.17.3. The adjustment shall be made through the U_t term in the formula in Clause 6.12.2 and shall be calculated as under:

$$U_t = \frac{UC_t - UE_t}{V_t}$$

Where:

UE_t is the forecast statutory operating costs determined by the Authority for the Tariff Year t at the time of determination of Aggregate Revenue Requirement in the Multi Year Tariff Order;

UC_t is the actual statutory operating costs incurred by Airport Operator in Tariff Year t;

V_t is the actual Volume in Tariff Year t and is the divisor in the calculation of the Actual Yield per passenger according to Clause 6.19.

6.18. Recovery Error Correction Factor (with actual Volume), $K_{t,AV}$

6.18.1. The recovery error correction factor is, an adjustment factor calculated using the error correction term E of Tariff Year t-2 and the compounding factor, according to the formula in Clause 6.18.2. The error correction term for a Tariff Year t shall be calculated according to Clause 6.20 and indicates the quantum of over-recovery or under-recovery due to increase or decrease respectively in Actual Yield per passenger with respect to Actual Maximum Allowed Yield per passenger in the Tariff Year.

6.18.2. The recovery error correction factor with actual Volume ($K_{t,AV}$) shall be calculated as under:

$$K_{t,AV} = \frac{E_{t-2} \times (1 + r)^2}{V_t}$$

Where:

E_{t-2} is the error correction term indicating the quantum of actual over-recovery or under-recovery in the Tariff Year $t-2$, calculated according to Clause 6.20.

$E_{t-2} = 0$ when t is the first or second Tariff Year of the first Control Period.

V_t is the actual Volume handled by the Airport Operator in Tariff Year t , and is the divisor in the computation of the Actual Yield per passenger for Tariff Year t , according to Clause 6.19.

r is the compounding factor for over or under recovery, as the case may be, and is equal to the Fair Rate of Return as applicable for the relevant Control Period and determined by the Authority according to Clause 5.1.

Illustration 13: The following example illustrates the approach for calculating Actual Maximum Allowed Yield per passenger (AMAY), after applying requisite corrections, based on the information contained in Annual Compliance Statement. The numbers in the illustration have been rounded to the nearest 2 decimal places.

Actual Maximum Allowed Yield

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per passenger for Tariff Year t after actual change in WPI	$Y_{t,AWPI}$	4.13	4.36	4.83	5.23	5.60
Forecast Error correction	F_t	-	0.02	-	(0.01)	0.05
Service Quality Rebate Term	Q_t	3%	1.5%	0%	0%	0%
Statutory operating cost correction term	U_t	0.15	-	0.10	0.00	0.05
Other mandated operating cost correction term	OM_t	-	-	0.05	0.10	0.00
Error correction term for Tariff Year t-2	E_{t-2}	-	-	25.73	(455.74)	105.70
Compounding Factor	$r =$	16.0%	16.0%	16.0%	16.0%	16.0%
$E_{t-2} \times (1+r^2)$	$FRoR$ c	-	-	34.62	(613.25)	142.22
Actual Volumes	V	990	990	1,300	1,700	1,400
Recovery Error Correction Factor	$K_{t,AV} =$ c/V	-	-	0.03	(0.36)	0.10
Actual Maximum Allowed Yield, $AMAY = Y \times (1+F) \times (1-Q) + S + OM + U + K$	$AMAY$	4.16	4.38	5.01	4.92	6.03

- *Yield per passenger after actual change in WPI, used in illustration above, is calculated in illustration 10.*
- *Forecast Error Correction, used in illustration above, is calculated in illustration 12.*
- *Service Quality Rebate Term, used in illustration above, is calculated in illustration 11.*
- *Other Mandated operating cost correction term shall be calculated according to Clause 6.16*
- *Statutory operating cost correction term shall be calculated according to Clause 6.17*
- *The calculation of error correction terms, used in illustration above, is given in illustration 15.*

6.19. Actual Yield per passenger

6.19.1. The Actual Yield per passenger shall be calculated for each Tariff Year to ensure compliance with the Actual Maximum Allowed Yield per passenger. It shall be calculated after the audited financial information for that Tariff Year becomes available.

6.19.2. The Actual Yield per passenger shall be calculated as under:

	Total Actual Revenues
Less	Actual Revenues from services other than aeronautical service(s)
Equals	Actual Revenues subject to regulation
Divided by	Actual Volume (V)
Equals	Actual Yield per passenger (AY)

Where:

‘Total Actual Revenues’ represent the total actual revenues of the Airport Operator, less revenues in respect of assets excluded from RAB.

‘Actual Revenues from services other than aeronautical service(s)’, represent such revenues from services other than aeronautical service(s) which were determined by the Authority in the Multi Year Tariff Order subject to Clause 4.2 and any other revenues from services other than Regulated Service(s) in the Tariff Year t, which though not determined by the Authority in the Multi Year Tariff Order but have nevertheless accrued to the Airport Operator

‘Actual Volume’ means actual Volume measured on the basis that is consistent with the forecasts at the time of the last tariff review.

Illustration 14: The following example illustrates the approach for calculating Actual Yield per passenger (AY) based on the information contained in Annual Compliance Statement. The numbers in the illustration have been

rounded to the nearest integers with the exception of Actual Yield per passenger, which has been rounded to nearest 2 decimal places.

Actual Yield per Unit						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Total Actual Revenues	R	4,500	5,800	7,500	9,000	8,500
Actual Revenues from services other than Regulated Service(s)	NAR	908	1005	1095	1186	1272
Actual Revenues subject to regulation	AR = R – NAR	3,592	4,795	6,405	7,815	7,228
Actual volumes	V	990	990	1,300	1,700	1,400
Actual Yield per passenger	AY = AR / V	3.63	4.84	4.93	4.60	5.16

6.20. Error correction term

6.20.1. Based on the calculation of the Actual Yield per passenger and the Actual Maximum Allowed Yield per passenger, the error correction term shall be determined, indicating the quantum of over-recovery or under-recovery in Actual Yield per passenger with respect to Actual Maximum Allowed Yield per passenger in the Tariff Year.

6.20.2. As explained in clause 6.10.2, the error correction term shall ensure that:

- (a) Over-recovery, if any, irrespective of the reasons for such over-recovery shall be clawed back. This shall be effected through the Error Correction term in Tariff Year t+2 to enable incorporation of audited financial information for the same.
- (b) Any discounts or adjustments made in invoices to / payments by end users against approved tariffs shall not be compensated.
- (c) Under-recovery, if any, shall be corrected only for terms factored through the Actual Maximum Allowed Yield per passenger (Change in

yield per passenger for actual change in WPI, Forecast error correction, Other mandated operating costs correction, Statutory operating costs correction and Change in recovery error correction factor, for Tariff Year t-2, for actual Volume). Therefore, under-recovery for any other factors like change in traffic mix etc. shall not be corrected. Correction for under-recovery on account of the terms mentioned above shall be effected through the Error Correction term in Tariff Year t+2 to enable incorporation of audited financial information for the same.

- (d) In case the Tariffs are so proposed by the Airport Operator in an Annual Tariff Proposal, that they result in a yield lower than the Estimated Maximum Allowed Yield for that Tariff Year, correction for such under-recovery shall normally not be allowed.

6.20.3. The difference between the Actual Yield and Actual Maximum Allowed Yield shall be calculated as under:

$$\text{Difference} = (AY_t - AMAY_t)$$

where,

If Difference ≥ 0 , it implies an over-recovery of Actual Yield with respect to Actual Maximum Allowed Yield.

And if, Difference < 0 , it implies an under-recovery of Actual Yield with respect to Actual Maximum Allowed Yield.

6.20.4. **Error Correction Term for Over-recovery**

The principles for error correction in case of over-recovery are mentioned in Clause 6.20.2

The error correction term for over-recovery shall be calculated as under:

$$E_t = [(AMAY_t - AY_t) \times V_t] - DI_t$$

Where:

DIt is required to be computed, by the Airport Operator, as the sum total of revenues as per tariffs approved by the Authority less sum total of all payments made by end users including payables, if any. **DIt** will include the sum total of all adjustments made in invoices to / payments by end users against tariffs approved by the Authority inter alia on account of factors like:

- (1) discounts offered by the service provider to end users; or
- (2) subtractions / adjustments made by end users against invoices of the service provider on account of deficiency in quality of services, etc.

6.20.5. **Error Correction Term for Under-recovery**

The principles for error correction in case of under-recovery are mentioned in Clause 6.20.2.

In such a case, the Authority shall only compensate the Airport Operator for terms factored through Actual Maximum Allowed Yield as follows:

- By a factor **ΔY (i.e. change in yield)**; **ΔY , the change in yield per passenger** will equal the difference between Yield with actual change in WPI (as adjusted downwards for Service Quality rebate and as adjusted for Forecast Error Correction Term) and yield per passenger with WPI forecast considered at the **beginning of the Control Period**. **ΔY is calculated as follows:**

$$[Y_{t,AWPI} \times (1 - Q_t) \times (1 + F_t) - Y_{t,EWPI}] = \Delta Y$$

- By a factor **OM_t** representing other mandated operating costs correction,
- By a factor **U_t** representing statutory operating costs correction,
- By a factor **ΔK i.e. the change in “recovery error correction factor”, for actual Volume (V) as against “recovery error**

correction factor”, for estimated Volume (VE). ΔK is calculated as follows:

$$[K_{t,VA} - K_{t,VE}] = \Delta K$$

The error correction term for under-recovery shall be calculated as under:

$$\text{If } AY_t + (\Delta Y + OM_t + U_t + \Delta K) \geq AMAY_t$$

$$\text{Then, Error} = (AMAY_t - AY_t) \times \text{Actual Volumes} - DI,$$

And,

$$\text{If } AY_t + (\Delta Y + OM_t + U_t + \Delta K) < AMAY_t$$

$$\text{Then, Error} = (\Delta Y + OM_t + U_t + \Delta K) \times \text{Actual Volumes} - DI,$$

Where:

$AMAY_t$ is the Actual Maximum Allowed Yield per passenger for Tariff Year t;

$Y_{t,AWPI}$ is the yield per passenger, calculated according to Clause 6.13, for the Tariff Year t at the end of such year;

$Y_{t,EWPI}$ is the yield per passenger, calculated according to Clause 6.4, for the Tariff Year t at the beginning of such year;

Q_t is the service quality rebate term, calculated according to Clause 6.14;

F_t is the forecast error correction term, calculated according to Clause 6.15;

OM_t is the other mandated operating cost correction term, calculated according to Clause 6.16;

U_t is the statutory operating cost correction term calculated, according to Clause 6.17;

$K_{t,AV}$ is the recovery error correction factor, calculated at the end of the Tariff Year t according to Clause 6.18.

$K_{t,EV}$ is the recovery error correction factor, calculated at the beginning of the Tariff Year t according to Clause 6.10

Note: The Authority requests for suggestions in respect of the formula for Error Correction term and will review it accordingly based on the stakeholders' comments so as to ensure conformity with the principles mentioned in Clause 6.20.2.

Illustration 15: The following example illustrates the approach for calculating error correction term based on the information contained in Annual Compliance Statement.

Error correction term						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Actual Yield per Unit	AY	3.63	4.84	4.93	4.60	5.16
Actual volumes	V	990	990	1300	1700	1400
Actual Maximum Allowed Yield	AMAY	4.16	4.38	5.01	4.92	6.03
(under) / over recovery	$D = AY - AMAY$	(0.5)	0.5	(0.1)	(0.3)	(0.9)
over-recovery (Difference ≥ 0)						
Error Correction	$AMAY - AY$	-	(0.5)	-	-	-
Error Correction Term for over recovery (in Rupees)	$E = (AMAY - AY) \times V - DI$	-	(455.74)	-	-	-
under-recovery (Difference < 0)						
Yield per Unit for Tariff Year t after adjustment for WPI	$Y_{t,AWPI}$	4.13	4.36	4.83	5.23	5.60
Forecast Error Correction	F_t	-	0.02	-	(0.01)	0.05
Other mandated operating cost correction term	OM_t	-	-	0.05	0.10	0.00
Statutory operating cost correction term	U_t	0.15	-	0.10	0.00	0.05
Recovery error correction term with Actual Volumes	$K_{t,AV}$	-	-	0.03	(0.36)	0.10

Yield per Unit for Tariff Year t with estimated WPI	$Y_{t, EWPI}$	4.13	4.46	4.82	5.21	5.62
Recovery error correction term with estimated Volumes	$K_{t, AV}$	-	-	0.03	(0.40)	0.08
Error Correction Term for under recovery		25.73		105.70	197.59	460.86

- *AMAY, used in illustration above, is calculated in illustration 13.*
- *AY, used in illustration above, is calculated in illustration 14.*
- *Error correction term calculated above is an input to the recovery error correction factor (K)*
- *Negative E implies an over-recovery which will be adjusted as negative K*

6.21. Summary of Corrections: For sake of clarity, it is stated that:

6.21.1. The Authority shall provide corrections for the following components on Tariff Year basis:

- Yield per passenger (Y), calculated for actual change in WPI in the Tariff Year;
- Service quality rebate term Q_t for the Tariff Year t;
- Forecast error correction term F_t for the Tariff Year t;
- Other Mandated Operating cost correction term OM_t for the Tariff Year t;
- Statutory Operating costs correction term (U_t) for the Tariff Year t;
- Change in recovery error correction factor, for Tariff Year t-2, for actual Volume.

6.21.2. The Authority shall provide corrections for the following components between the Control Period(s):

- (a) Impact of change in rate of tax on corporate income as computed in the forecast of Aggregate Revenue Requirement for the previous Control Period, and
- (b) Difference between realized return on RAB adjusted at the end of the Control Period for (i) actual capital expenditure; (ii) actual disposal values as reviewed by the Authority; and (iii) any incentive adjustments as determined by the Authority and forecast return on Regulatory Asset Base forecast at the beginning of the Control Period.

In effect, any over-recovery or under-recovery on account of the factors mentioned above, as may be determined by the Authority, shall be adjusted for determination of tariffs for the next Control Period.

6.21.3. The Authority shall normally not provide any correction for inter alia, the following components either during a Control Period or between the Control Period(s):

- (a) Any variation in Operation and Maintenance Expenditure (other than Other Mandated Operating Costs and Statutory Operating Costs);
- (b) Any variation in Fair Rate of Return; and
- (c) Revenues from services other than Regulated Services.

Appendix 1: Consultation Protocol

A1.1. Consultation Protocol

A1.1.1. This consultation protocol sets out the Authority's guidance on the protocol for process of consultation between the Airport Operator(s) and the User(s). The Authority considers the scope of information to be shared under the protocol as a minimum necessary requirement to inform Users regarding the development of the airport and related services. The quality and depth of information to be provided during consultation should be such as to enable the Users to take an informed view on critical elements and, in turn, inform **each airport's** strategy and approach to development and decisions made in this respect. The consultation protocol shall be the basis for effective consultation with the objective of reaching better and well-informed decisions on the key elements of project planning and implementation, which should include information at least on the following:

- A1.1.1.1. Justification for the project, including if it will result in improvement in the quality of service, provision of new facilities among such other improvements;
- A1.1.1.2. Options for development;
- A1.1.1.3. Airport traffic forecast and methodology thereof;
- A1.1.1.4. Project cost estimates and funding, including relevant benchmark information on costs;
- A1.1.1.5. Likely impact on Tariff(s) including, UDF, DF, if any - immediate and over the next 5 year period;
- A1.1.1.6. Proposed funding mechanism.

A1.1.2. The consultation protocol shall govern the consultation for major projects, defined in Section A1.3.1 below, identified by the Airport Operator or AUCC. While this consultation protocol is designed to govern the consultation process to be adopted by the regulated Airport Operators, it is premised on the basis that the airlines and other airport Users shall meet the reasonable expectations of the Airport Operator seeking information required to support

effective consultation. The Authority considers that the Airport Operators and Users need to respect the agreed process and timelines when making their contributions. It is important that Airport Operators and the Airport Users Consultative Committee (AUCC) should aim to ensure that delays do not jeopardise **Airport Operator's** ability to deliver its investment programme or specific projects or the operational needs of Users.

A1.2. Formation of Airport Users Consultative Committee (AUCC)

A1.2.1. The Authority mandates Airport Operator to form Airport Users Consultative Committee (AUCC) at its Major Airport, for the purpose of consultation with airport Users.

A1.2.2. Airport Operators shall notify and invite the below mentioned Users to form AUCC within 1 month of the date of issue of these Guidelines under intimation to the Authority. In the event that setting up of AUCC is not achieved within the specified timeline of 1 month from the date of issue of these Guidelines, the Authority may intervene and facilitate the process. The AUCC will elect a chairperson from amongst its members and the Airport Operator shall service the AUCC.

A1.2.3. AUCC shall have the following composition to adequately represent interest of airport Users:

A1.2.3.1. Airlines: Federation of Indian Airlines (FIA); International Airport Transport Association (IATA); Board of Airline Representatives (BAR); and the Indian registered scheduled airlines

A1.2.3.2. Passengers: FICCI, ASSOCHAM, CII and any local chamber; Representative of the State Government; Voluntary Organisation in Interest of Consumer Education (VOICE); Consumer Education and Research Center (CERC); Consumer Unity & Trust Society (CUTS); and representatives each of AAI and APAO in case of concession or private airports

A1.2.3.3. Cargo Facility Users: Local associations of Freight Forwarders; Custom House Agents; and apex chambers namely FIEO, FICCI, CII and ASSOCHAM.

A1.2.3.4. Representatives of independent service providers of following services: for the cargo facility at an airport; for ground handling services relating to aircraft, passengers and cargo at an airport; and for supplying fuel to the aircraft at an airport.

A1.2.3.5. any other person(s) who may be nominated by the Authority.

A1.2.4. AUCC may establish sub-committee(s), if required, from amongst its members, to deal with specific issues.

A1.3. Scope of Consultation (Major Projects)

A1.3.1. The Airport Operator shall undertake user consultation with AUCC on major capital projects planned at the airport. The major capital projects shall be defined as capital investment projects that may represent more than 5% of the value of the RAB at the beginning of the control period or Rs.50 crore Rupees, whichever is the lower amount. Further, major projects have been classified under following two categories, for the effectiveness of the consultation process:

Project Category	Lower Value Limit	Upper Value Limit
Category 1	Minimum of (5% of opening RAB value for first Year of the Control Period, Rs. 50 Crores)	Minimum of (10% of opening RAB value for first Year of the Control Period, Rs. 500 Crores)
Category 2	More than Minimum of (10% of opening RAB value for first Year of the Control Period, Rs. 500 Crores)	No Upper Limit

- A1.3.2. User consultation is not mandatory for the projects which are below 5% of opening RAB value for first Year of the Control Period or Rs. 50 Crores, whichever is lower. However, user consultation for such projects is encouraged if Users consider that such projects are material to their interests.
- A1.3.3. For the purpose of considering the threshold for consultation, a group of related or interdependent projects shall be considered as one project. The consultation with Users for such a project, which consists of a group of works, should not be avoided only because the cost of each or some of the work(s) in the project is below the threshold specified in Section A1.3.1.

A1.4. Consultation Process with AUCC

- A1.4.1. The Authority expects Airport Operators to provide all the required project information as part of the consultation process with Users. The information should be submitted to the AUCC in the form of a project investment file.
- A1.4.2. The consultation shall begin when the project investment file suitable for each stage (containing information as per requirement mentioned below), has been shared by the Airport Operator with AUCC and a copy of the same has been submitted for reference to the Authority.
- A1.4.3. The consultation process shall begin at the need identification stage after an outline of the major project concept has been prepared by the Airport Operator but prior to making any decision on selection of option or finalisation of design. The Authority expects Airport Operators to begin consultation at the stage when a potential need for a project is identified, before solutions and options are considered to meet identified needs, so that Users have the opportunity to offer substantive input into the brief for such major project. The stages for consultation could be as under:
- A1.4.3.1. Needs identification stage (stage 1), i.e. when the need for the project is identified, project brief has been developed and before solutions or options for development are considered;

A1.4.3.2. Options development stage (stage 2), i.e. when the solutions for development of identified project needs to be considered and Users have a substantive input into the brief of the project

A1.4.3.3. Detail project design stage (stage 3), i.e. when a solution or option for development has been selected and the Users have understanding of such reasons.

A1.4.4. Consultation should encompass the exchange of information and subsequent discussion between Airport Operator(s) and Users with the objective of achieving agreement, wherever possible, within the timeline specified hereinbelow, before key decisions are taken to enable the successful delivery of the plan.

Category 1 Projects

A1.4.5. The Authority expects user consultation on category 1 projects to be completed within an overall timeline of 3 months from the time complete information is made available to the Users.

Category 2 Projects

A1.4.6. The Authority expects user consultation at all 3 stages of project lifecycle, identified under Section A1.4.3 of this protocol, on category 2 projects to be completed within the overall timelines of 6 months such that at least 3 months have been provided from the time complete information for stage 3 is made available to the Users.

A1.4.7. The Authority expects the Airport Operator to maintain records of the consultation process, information shared and User responses for the purpose of review by the Authority. The Airport operator shall provide monthly update to the Authority on the meetings, discussions and process undertaken with AUCC.

A1.5. Information for effective consultation

A1.5.1. The Authority expects all major projects to be included in the project investment file with detailed information as per guideline provided below,

which may be updated and enhanced with recent available information or forecast at each stage in the project lifecycle.

A1.5.2. The information requirement mentioned below sets out the information to be shared at each stage as part of the Project Investment File.

A1.5.2.1. Needs Identification Stage

- (a) Details on the existing performance or capacity related indicators clearly setting out the rationale for considering new investment concepts
- (b) Analysis of the benefits resulting from the investment objectives for both Airport Operator and the Users. The benefits of the investment may include increased capacity, improved service levels, operational improvement etc. and should be quantified wherever possible.
- (c) Linkages to approved or existing master plan for the airport, establishing the rationale for investment including effect of concession agreements, if any.

A1.5.2.2. Options Development Stage

- (a) Identification and evaluation of project development options, both operational and infrastructural;
- (b) Major assumptions that are being considered setting out the rationale under each option for development including
 - (i) the timing and phasing of the project
 - (ii) design year
 - (iii) level of service
 - (iv) target outputs in terms of peak hour capacity and performance related measures etc.

- (v) implications for airport operations, user operations and future developments
- (c) Cost benefit analyses of the capital investment options for both Airport Operator and the Users and the steps taken to optimise the balance of costs and benefits should also be presented.
- A1.5.2.3. Detail Project Design Stage
 - (a) Project blueprint/ drawings detailing all relevant features of the proposed project
 - (b) Specific details of alternatives considered and analysis of reasons for choosing the preferred option for key project features;
 - (c) Rationale depicting how the project design has addressed the needs identified at the needs identification stage and the impact on efficient airport operational and service quality performance through suitable KPIs
 - (d) An analysis of cost benchmarking with reference to similar past project and external benchmarks, and;
 - (e) Year-wise Sources of Funding for the project – clearly highlighting the extent of on and off-balance sheet financing and implications on gearing
 - (f) Average actual and forecasted debt rate for the project during the construction phase
- A1.5.2.4. Additional Information needed for each stage
 - (a) Forecast demand in terms of traffic numbers for each of the identified major project, establishing clear linkages to overall traffic forecast for the airport

- (b) Details on the forecasting methodology used highlighting all assumptions used in the forecast
- (c) Forecasts of costs and other impacts for each project:
 - (i) the profile of the annual capital costs;
 - (ii) total capital expenditure (including the phasing) and the anticipated incremental impact upon the operating costs of Airport Operator;
 - (iii) an analysis of costs into base construction costs and other project/site specific costs;
 - (iv) costs associated with the project should bring out details like design requirements as well as the procurement strategy for the project.
- (d) Projected impact of the project on airport tariffs over the duration of next 5 years, using the most recent Guidelines on airport tariffs issued by the Authority. The impact on airport tariffs, due to the project, shall be highlighted on an incremental and total basis.
- (e) Projected implications for airport operations, service levels, user operations and future developments.
- (f) Key Risks.
- (g) Information on the overall investment programme including principal projects not subject to user consultation, to permit Users to understand the context of each project.

A1.5.3. The Authority recognises that the extent and level of detail of project information necessary to inform consultation may be lower for lower value projects. The information requirement set out above is a minimum information sharing requirement and the further level of information sharing

should be determined through discussion and negotiation between AUCC and the Airport Operator.

A1.5.4. The information shared between airport and the AUCC shall form the basis of an effective consultation process, designed to provide airport facilities to best meet the current and future needs of Users. Within this process, Airport Operators should ensure that at a minimum the information specified in this consultation protocol is provided and has been shared with Users at the airport. The level of details in the information provided at each stage should reflect the stage of the project in its lifecycle. Any outstanding differences between Airport Operators and AUCC about the scope and depth of information provided as part of the consultation may be referred to the Authority.

A1.6. Monitoring and compliance

A1.6.1. The Authority expects its role in the consultation process to be limited to a review of the proceedings of the process. However, where there is sufficient evidence of disagreement between Users and Airport Operator either in terms of process of consultation, information requirements from Airport Operators or investment decisions and the Authority is satisfied that the disagreements prevent the Airport Operator in making informed decisions, the Authority will intervene to facilitate the consultation process. Any outstanding differences between Airport Operators and AUCC about the scope and depth of information provided as part of the consultation may be referred to the Authority.

A1.6.2. The Authority will consider intervention on evidence based request from Airport Operator or Users. In any case, the Authority expects to be informed on the on-going consultation between Airport Operators and Users through monthly updates. The Airport Operator shall, in parallel, provide to the Authority a copy of all information furnished to AUCC

A1.6.3. The Authority shall receive the final project investment file on the AUCC and Airport Operator consultation process at the end of the specified consultation period for all projects.

- A1.6.4. As far as possible, project investment files should be agreed to as between the Airport Operator and the AUCC. In the final project investment file submitted to the Authority, the Airport Operator should clearly specify the process of consultation undertaken and highlight suggestions, areas of concerns and decisions made by the AUCC. The project investment file shall also highlight the rationale for the final position and the next steps in project development.
- A1.6.5. At the time of a tariff review, project investment files and consultation information, minutes of meeting etc. in respect of projects for which consultation is not complete, would provide relevant information to the Authority to inform its assessment of the capital expenditure that may be included in the RAB. However, the Authority may specify further information that it will require to be considered by the Airport Operator and AUCC.
- A1.6.6. The Authority may, in its discretion, intervene in the consultation process at any stage to facilitate the same.

Appendix 2: Objective Quality of Service Parameters and Benchmarks

Service Parameters	Measures	Benchmarks	Monthly Percentage Rebate
Airport Core Processes			
Security Check	Waiting time in queue	95% < 5 mins	0.25
Immigration	Checking time in queue for immigration	95% < 10 mins	0.25
Check-In	Maximum queuing time	Economy: 20 mins Business: 05 mins	0.25
Baggage Delivery (Domestic)	Time taken for bag delivery from aircraft arrival	First bag: 10 mins Last Bag: 30 mins	0.25
Baggage Delivery (International)	Time taken for bag delivery from aircraft arrival	First bag: 15 mins Last Bag: 40 mins	0.25
Passenger Arrival (International)	Time taken from aircraft arrival to kerbside	95% < 45 mins	0.25
Passenger Arrival (Domestic)	Time taken from aircraft arrival to kerbside	95% < 35 mins	0.25
Airport Facilities			
Parking Bays	% time available	99%	0.25
Passenger Boarding Bridges	% of aircraft movements served to meet airline request	90%	0.25
Availability of Flight Information	% time available	98%	0.25
Escalators, Lifts & Travelators	% time available	98%	0.25
Automated Services	% time available	98%	0.25
Baggage Trolleys	% time available	100%	0.25
Facilities for Disabled Passenger	% time availability of assistance for disabled	100% within 5 mins.	0.25

Service Parameters	Measures	Benchmarks	Monthly Percentage Rebate
Customer Service			
Handling of Complaints	% of complaints responded within specified time	100% within 2 working days	0.25
Response to Phone Calls	% of calls answered within specified time	90% within 60 secs.	0.25

Appendix 3: Subjective Quality of Service Parameters and Benchmarks

A3.1. Subjective Quality of Service Parameters and Benchmarks

A3.1.1. The subjective quality of service shall be measured on parameter “Overall satisfaction with the airport” on the ACI ASQ survey to be conducted every quarter. The benchmark score for the parameter “Overall satisfaction with the airport” shall be 3.5 or 3.75 as the case may be. The rebate percentage shall be applicable on the quarterly performance, to be calculated as per the formula specified under Clause 6.14 of the Guidelines. The Airport Operator shall also provide performance on all measured parameters of the ACI ASQ survey as mentioned below:

- A3.1.1.1. Overall satisfaction with the airport
- A3.1.1.2. Ground transportation to/from airport
- A3.1.1.3. Availability of parking facilities
- A3.1.1.4. Value for money of parking facilities
- A3.1.1.5. Availability of baggage carts/trolleys
- A3.1.1.6. Waiting time in check-in queue/line
- A3.1.1.7. Efficiency of check-in staff
- A3.1.1.8. Courtesy and helpfulness of check-in staff
- A3.1.1.9. Waiting time at passport/personal ID inspection
- A3.1.1.10. Courtesy and helpfulness of inspection staff
- A3.1.1.11. Courtesy and helpfulness of security staff
- A3.1.1.12. Thoroughness of security inspection
- A3.1.1.13. Waiting time at security inspection
- A3.1.1.14. Feeling of being safe and secure
- A3.1.1.15. Ease of finding your way through airport
- A3.1.1.16. Flight information screens
- A3.1.1.17. Walking distance inside the terminal

- A3.1.1.18. Ease of making connections with other flights
- A3.1.1.19. Courtesy and helpfulness of airport staff (excluding check-in, passport control and security)
- A3.1.1.20. Restaurant/Eating facilities
- A3.1.1.21. Value for money of restaurant/eating facilities
- A3.1.1.22. Availability of bank/ATM facilities/money changers
- A3.1.1.23. Shopping facilities
- A3.1.1.24. Value for money of shopping facilities
- A3.1.1.25. Internet access/ Wi-fi
- A3.1.1.26. Business/Executive lounges
- A3.1.1.27. Availability of washrooms/toilets
- A3.1.1.28. Cleanliness of washrooms/toilets
- A3.1.1.29. Comfort of waiting/gate areas
- A3.1.1.30. Cleanliness of airport terminal
- A3.1.1.31. Ambience of the airport
- A3.1.1.32. Passport/Personal ID Inspection
- A3.1.1.33. Speed of baggage delivery service
- A3.1.1.34. Customs inspection

Appendix 4: Quality of Service Measure and Measurement Mechanism

A4.1. Quality of Service Measure and Measurement Mechanism

A4.1.1. The Airport Operator shall monitor and measure quality of service on the parameters identified under Appendix 2 and 3. The Airport Operator shall submit a performance measurement plan providing details on the measurement mechanism and measurement frequency/ periodicity. The performance measurement plan shall be prepared by the Airport Operator in accordance with the guidance provided below on measuring quality of service for identified parameters and as per the format attached in Appendix 5.

A4.2. Measurement Mechanism and Measurement Frequency

A4.2.1. The measurement mechanism in the performance measurement plan shall provide detail on the mechanism used for measuring performance on each objective and subjective parameter. In accordance with guidance provided for each parameter below, the details shall cover aspects like sample size, time of measurement, sources of data used etc. The performance measurement plan shall be prepared on the basis of guidance provided in the Section(s) below:

A4.2.1.1. The performance on subjective parameters shall be measured as per the ACI methodology as indicated in the table below.

A4.2.1.2. **The performance on parameters: “security check” and “immigration” is linked to the percentage of passengers processed within the set standard.** The guidance on measurement mechanism and measurement frequency is provided in the table below. The methodology used for measurement is based on the methodology used by CAA UK at regulated airports³. The measurement shall be done on the basis of following methodology:

³ Reference, CAA Decision, Economic Regulation of Stansted Airport 2009-2014, Page 178. The CAA methodology applies to the entire operational hours of the airport in a month, subject to certain identified exclusions.

- (h) For each month the ‘sample hour’ of the day over which performance shall be measured is divided into “15 minute time intervals” beginning xx:00, xx:15, xx:30 and xx:45 in the respective hour;

For each “15 minute time interval”, the average queuing time shall be calculated as:

$$\text{“Average Queuing Time”} = \text{Num} / A$$

Where:

A⁴ average number of passengers per minute leaving the queue in the 15 minute time interval;

Num⁵ is the average number of passengers in the queue in the 15 minute time interval.

- (i) The performance percentage figures for set standard shall be calculated by:
- i. Identifying how many passengers in the sample hours were processed in a time interval where the measured average queue time is less than set standard;
 - ii. Then dividing this figure by the total number of passengers processed in those sample hours and expressing percentages.

‘Sample hours’ in a month shall be identified by the Airport Operator to reflect or simulate a random, unbiased sample of passengers in a month. This would mean that if hour A is expected to have passenger flows that are double those expected for hour B, then the chance of sampling hour A should be double the chance of sampling hour B. In this way, the hours selected for sampling will fairly represent the experience of all passengers using the airport.

An hour may be specified to be a clock hour, starting at 00 minutes past the hour and ending at 59 minutes past the hour or any other pre-defined convention that the Airport Operator chooses (pre-defined so that the definition of an hour cannot be influenced by any other factors at the time of determining the sample hour).

⁴ Calculated by measuring the exit numbers through the security arches every 60 seconds.

⁵ Calculated by measuring the number of people in the queue every 60 seconds.

- A4.2.1.3. **The performance on parameter “check-in” is linked to the** waiting time in queue for the passenger. The average queue time for passengers in the Check-in queue shall be measured from the time the passenger joins the queue to the time of reaching the processing counter/desk and shall be calculated as per the methodology specified under Section A4.2.1.2 above. The sampling hour the day shall be selected by the Airport Operator using an objectively random method and taking into consideration factors like passenger forecasts and flight schedules. The sampling hour shall be selected and identified in the performance measurement plan to be submitted by the Airport Operator.
- A4.2.1.4. The performance on parameters Baggage Delivery (International) and Baggage Delivery (Domestic) is linked to the maximum time taken for first bag and last bag. The guidance on measurement mechanism and measurement frequency is provided in the table below, and is mandated based on the **Authority’s assessment. The Authority mandates that the set** standard shall be met for first bag and last bag of all flights during the month. Objective Data Sources shall be identified as records maintained by Airport Operator for the purpose of recording data in the paper e.g. log books or electronic form e.g. IT systems.
- A4.2.1.5. The performance on parameters Passenger Arrival (International) and Passenger Arrival (Domestic) is linked to time taken from aircraft arrival to kerbside. The guidance on measurement mechanism and measurement frequency is provided in the table below, and is mandated based on the **Authority’s assessment.** The sampling hours shall be selected by the Airport Operator using an objectively random method and taking into consideration factors like passenger forecasts and

flight schedules. The sampling hours shall be defined and identified in the performance measurement plan to be submitted by the Airport Operator.

A4.2.1.6. **The performance on parameters “Parking Bays”, “Availability of Flight Information”, “Escalators, Lifts and Travelators” and “Automated Services”** is linked to the availability within set standards. The guidance on measurement mechanism and measurement frequency is provided in the table below, and is based on the measurement methodology used by CAA UK for its regulated airports⁶. The availability measure of each parameter shall be measured in respect to number and type of assets **included under each parameter e.g. parameter “automated services” includes inbound baggage system, outbound baggage system, X-Ray machines and public announcement system.** The availability under each relevant parameter shall be measured as per following steps:

(j) Calculate total number of assets, e.g. x-ray machines, and multiply with the total available time required for each asset. Calculate the sum total of the total available time for all assets. In symbolic terms, this is expressed as

$$\sum_{k=1}^n T_{k,j}$$

(k) Calculate the unavailable time for each asset included in the parameter and calculate the sum total of unavailable time for all assets included in the parameter. In symbolic terms, this is expressed as

$$\sum_{k=1}^n U_{k,j}$$

(l) Calculate availability for parameter i in month j as:

$$Availability_{ij} = 100 \times \left(1 - \frac{\sum_{k=1}^n U_{k,j}}{\sum_{k=1}^n T_{k,j}} \right)$$

⁶ Reference, CAA Decision, Economic Regulation of Stansted Airport 2009-2014, Page 178

Where:

Availability_{ij} is the percentage availability of parameter i in month j;

n is the total number of assets included in parameter i;

k denotes a specific asset included in parameter i such that k=1,2,...,n

U_{k,j} is the time that asset k is unavailable in month j;

T_{k,j} is the total planned available time for asset k in month j (i.e. after deducting the time for planned maintenance)

Objective Data Sources shall be identified as records maintained by Airport Operator for the purpose of recording data in the paper e.g. log books or electronic form e.g. IT systems.

Automated Services shall include, inter alia, the following items:

- i. Inbound Baggage Systems
- ii. Outbound Baggage Systems
- iii. X-Ray Machines
- iv. Public Announcement Systems
- v. Any other services as determined.

A4.2.1.7. **The performance on parameter “Passenger Boarding Bridges” is linked to the availability within set standards.** The guidance on measurement mechanism and measurement frequency is provided in the table below, and is mandated based on the **Authority’s assessment**. Objective Data Sources shall be identified as records maintained by Airport Operator for the purpose of recording data in the paper e.g. log books or electronic form e.g. IT systems.

A4.2.1.8. **The performance on parameter “Baggage Trolley” is linked to the availability within set standards.** The guidance on measurement mechanism and measurement frequency is provided in the table below, and is mandated based on the **Authority’s assessment**. The sampling hours shall be defined by the Airport Operator using an objectively random method and taking into consideration factors like passenger forecasts and

flight schedules. The sampling hours shall be defined and identified in the performance measurement plan to be submitted by the Airport Operator. Objective Data Sources shall be identified as records maintained by Airport Operator for the purpose of recording data in the paper e.g. log books or electronic form e.g. IT systems.

A4.2.1.9. The performance on parameter **“Facilities for Disabled Passenger”** is linked to the availability within set standards. The guidance on measurement mechanism and measurement frequency is provided in the table below, and is mandated based **on the Authority’s assessment. Objective Data Sources** shall be identified as records maintained by Airport Operator for the purpose of recording data in the paper e.g. log books or electronic form e.g. IT systems.

A4.2.1.10. **The performance on parameter “Handling of Complaints”** is linked to the response within set standards. The guidance on measurement mechanism and measurement frequency is provided in the table below, and is mandated based on the **Authority’s assessment. Objective Data Sources shall be** identified as records maintained by Airport Operator for the purpose of recording data in the paper e.g. log books or electronic form e.g. IT systems.

A4.2.1.11. **The performance on parameter “Response to Phone Calls”** is linked to the response within set standards. The guidance on measurement mechanism and measurement frequency is provided in the table below, and is mandated based on the **Authority’s assessment. Objective Data Sources shall be** identified as records maintained by Airport Operator for the purpose of recording data in the paper e.g. log books or electronic form e.g. IT systems.

A4.3. Audit and Publication of performance measures

A4.3.1. Airport operator will provide quarterly reports to the Authority on the measurement of performance standards, both objective and subjective. The Authority will publish the performance reports, airport wise, through its website, on a quarterly basis.

Airport operator shall also maintain records of the actual quality of service and rebates made in such a form that performance could be independently audited against the objective and subjective standards defined by the Authority.

A4.4. Summary

For the sake of clarity, the subjective and objective quality of service parameters, their measures, measurement mechanism, measurement frequency and data sources are summarised in the Table 1.

Table 1

Service Parameters	Measures	Measurement Mechanism	Measurement Frequency & Data Source
Subjective Parameters			
Benchmarking of Service Quality through ACI ASQ survey	Passenger survey rating on the standard ASQ survey compared against the benchmark	As per the ACI ASQ Methodology	As per the ACI ASQ Methodology
Objective Parameters			
Airport Core Processes			
Security Check	Waiting time in queue	<p>Number of passengers where Average Queuing Time is within set standard as a percentage of total passengers in the queue.</p> <p>The Average Queuing Time and performance percentage to be calculated as described in Section A4.2.1.2 above.</p> <p>The measurement is to be done for number of queues such that a statistically significant sample of passengers is covered.</p> <p>The measurement shall apply to both international and domestic queues.</p>	<p>Measurement is to be done during busiest hour of randomly selected days in the month.</p> <p>The randomly selected days in the month must cover all days of the week.</p> <p>Data used to be based on independent/ third party assessment.</p> <p>Performance score to be calculated for every month.</p>

Service Parameters	Measures	Measurement Mechanism	Measurement Frequency & Data Source
Immigration	Checking time in queue for immigration	<p>Number of passengers where Average Queuing Time is within set standard as a percentage of total passengers in the queue.</p> <p>The Average Queuing Time and performance percentage to be calculated as described in Section A4.2.1.2 above.</p> <p>The measurement is to be done for number of queues such that a statistically significant sample of passengers is covered.</p>	<p>Measurement is to be done during busiest hour of randomly selected days in the month.</p> <p>The randomly selected days in the month must cover all days of the week.</p> <p>Data used to be based on independent/ third party assessment.</p> <p>Performance score to be calculated for every month.</p>
Check-In	Maximum queuing time	<p>Average Queuing Time to be calculated as described in Section A4.2.1.2 above.</p> <p>The measurement is to be done for number of queues such that a statistically significant sample of passengers is covered.</p> <p>The measurement shall apply to both international and domestic queues.</p>	<p>Measurement is to be done during busiest hour of randomly selected days in the month.</p> <p>The randomly selected days in the month must cover all days of the week.</p> <p>Data used to be based on independent/ third party assessment.</p> <p>Performance score to be calculated for every month.</p>
Baggage Delivery (Domestic)	Time taken for bag delivery from aircraft arrival	<p>Maximum time taken for baggage delivery from aircraft on-blocks time to first bag on baggage belt.</p> <p>Maximum time taken for baggage delivery from aircraft on-blocks time to last bag on baggage belt.</p> <p>The maximum time taken for both first bag and last bag shall be within set standard.</p>	<p>For all flights during the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>

Service Parameters	Measures	Measurement Mechanism	Measurement Frequency & Data Source
Baggage Delivery (International)	Time taken for bag delivery from aircraft arrival	Maximum time taken for baggage delivery from aircraft on-blocks time to first bag on baggage belt. Maximum time taken for baggage delivery from aircraft on-blocks time to last bag on baggage belt. The maximum time taken for both first bag and last bag shall be within set standard.	For all flights during the duration of airport operational hours every day of the month. Data used to be based on objective data sources. Performance score to be calculated for every month.
Passenger Arrival (International)	Time taken from aircraft arrival to kerbside	Average time taken by sample of arriving passengers from on-blocks time to arrival exit gate. The sample and assessment methodology to be approved by the Authority. The measurement is to be done for number of passengers such that a statistically significant sample of passengers is covered.	Measurement is to be done during busiest hour of randomly selected days in the month. The randomly selected days in the month must cover all days of the week. Data used to be based on independent/ third party assessment. Performance score to be calculated for every month.
Passenger Arrival (Domestic)	Time taken from aircraft arrival to kerbside	Average time taken by sample of arriving passengers from on-blocks time to arrival exit gate. The sample and assessment methodology to be approved by the Authority. The measurement is to be done for number of passengers such that a statistically significant sample of passengers is covered.	Measurement is to be done during busiest hour of randomly selected days in the month. The randomly selected days in the month must cover all days of the week. Data used to be based on independent/ third party assessment. Performance score to be calculated for every month.
Airport Facilities			

Service Parameters	Measures	Measurement Mechanism	Measurement Frequency & Data Source
Parking Bays	% time available	<p>The available time to be measured for each parking bay, using actual operational hours in a month as percentage of total planned operational hours in a month (excluding planned maintenance time)</p> <p>The availability shall be measured with reference to formula provided in Section A4.2.1.2 above.</p>	<p>For the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>
Passenger Boarding Bridges	% of aircraft movements served to meet airline request	<p>Number of aircraft movements for which aerobridge request was met as a percentage of total number of aircraft movements for which aerobridge request was made.</p>	<p>For the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>
Availability of Flight Information	% time available	<p>The available time to be measured for each FIDS, using actual operational hours in a month as percentage of total planned operational hours in a month (excluding planned maintenance time)</p> <p>The availability shall be measured with reference to formula provided in Section A4.2.1.2above.</p>	<p>For the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>

Service Parameters	Measures	Measurement Mechanism	Measurement Frequency & Data Source
Escalators, Lifts & Travelators	% time available	<p>The available time to be measured for each Escalators, Lifts & Travelators, using actual operational hours in a month as percentage of total planned operational hours in a month (excluding planned maintenance time)</p> <p>The availability shall be measured with reference to formula provided in Section A4.2.1.2 above.</p>	<p>For the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>
Automated Services	% time available	<p>The available time to be measured for each Automated Services, using actual operational hours in a month as percentage of total operational hours in a month (excluding planned maintenance time)</p> <p>The availability shall be measured with reference to formula provided in Section A4.2.1.2 above.</p>	<p>For the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>
Baggage Trolleys	% time available	<p>Baggage trolleys available at designated locations should not fall below minimum 20 and meet the set standards.</p> <p>The designated locations shall be identified in the performance measurement plan.</p>	<p>Measurement is to be done during busiest hour of randomly selected days in the month.</p> <p>The randomly selected days in the month must cover all days of the week.</p> <p>Data used to be based on independent/ third party assessment.</p> <p>Performance score to be calculated for every month.</p>

Service Parameters	Measures	Measurement Mechanism	Measurement Frequency & Data Source
Facilities for Disabled Passenger	% time availability of assistance for disabled	<p>Number of request for assistance where measurement done from the time of request at PRM helpdesk to time of request closure is within set standard as a percentage of total number of request for assistance.</p> <p>The time of request closure shall be the time of request for assistance is met.</p> <p>The request for assistance received shall also cover request made by airlines on behalf of passengers.</p>	<p>For the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>
Customer Service			
Handling of Complaints	% of complaints responded within specified time	<p>Total number of complaints where difference between times of receiving the complaint to first response is within the set standard as a percentage of total complaints received.</p> <p>The complaints covered shall include complaints received via mail or complaint/suggestion register or e-mail.</p>	<p>For the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>

Service Parameters	Measures	Measurement Mechanism	Measurement Frequency & Data Source
Response to Phone Calls	% of calls answered within specified time	Number of calls answered by airport manager/ information help desk within the set standard as a percentage of total calls received.	<p>Measurements to be done using wait time reports showing the number and percentage of calls that were answered within specific time frames.</p> <p>Measurement to be done for the duration of airport operational hours every day of the month.</p> <p>Data used to be based on objective data sources.</p> <p>Performance score to be calculated for every month.</p>

Appendix 5

A5.1. Procedure for collecting data and information required

- A5.1.1. To enable the Authority to determine Tariff(s) pursuant to these Guidelines, the Airport Operator(s) shall submit a comprehensive Multi Year Tariff Proposal in the specified Form A and in accordance with Section A5.2.
- A5.1.2. During the Control Period, the Airport Operator(s) shall maintain the required information for submission to the Authority as under:
 - A5.1.2.1. Annual Tariff Proposal in accordance with Section A5.9;
 - A5.1.2.2. Annual Compliance Statement in accordance with Section A5.10.
- A5.1.3. The Airport Operator(s) shall submit one (1) hard bound original and four (4) hard bound copies and one (1) soft copy for the Multi Year Tariff Proposal, Annual Tariff Proposal and Annual Compliance Statement.
- A5.1.4. In case of discrepancies, if any, between the information contained in original hard copy and any other copies, the information contained in the original hard copy shall be relied upon by the Authority.
- A5.1.5. The information requirements are set out hereunder.

A5.2. Procedure for preparing the Multi Year Tariff Proposal (read with Clause 3.1)

- A5.2.1. Multi Year Tariff Proposal shall clearly outline the Aggregate Revenue Requirement for each Tariff Year of the Control Period based on these Guidelines.
- A5.2.2. The Multi Year Tariff Proposal shall clearly demonstrate how the Airport Operator has arrived at the proposed Aggregate Revenue Requirement based on consideration of the Regulatory Building Blocks and other aspects outlined in the business plan.
- A5.2.3. The Airport Operator(s) shall also submit the calculation of the historic Aggregate Revenue Requirement on a basis that is consistent with the proposed Aggregate Revenue Requirement. Such information shall be submitted in the specified Form F1.

- A5.2.4. The Multi Year Tariff Proposal should be supported by:
- A5.2.4.1. A copy of all agreements, and tender documents pursuant to which such agreements have been entered into wherever applicable, by the Airport Operator for provision of Regulated Service(s) and services other than Regulated Service(s) at the Major Airport;
 - A5.2.4.2. Airport Operator Business Plan in accordance with Section A5.3;
 - A5.2.4.3. Information pertaining to physical assets in accordance with Section A5.4;
 - A5.2.4.4. Information relating to the Regulatory Building Blocks in accordance with Section **A5.5**;
 - A5.2.4.5. Historical and forecasted Volumes in accordance with Section A5.6;
 - A5.2.4.6. Historical Revenues in accordance with Section A5.7.
- A5.2.5. The proposal shall include:
- A5.2.5.1. documented evidence that consultations with stakeholders have been undertaken;
 - A5.2.5.2. summary of concerns raised by the stakeholders;
 - A5.2.5.3. details of remedial action, if any, undertaken by Airport Operator, with reasons, in respect of the concerns so raised;
 - A5.2.5.4. reasons for not addressing the balance concerns.
- A5.2.6. As part of the Multi Year Tariff Proposal, data and information should be provided on a projected basis for the Control Period and a longer duration where specified.

A5.3. Airport Operator Business Plan

- A5.3.1. The Airport Operator(s) shall submit a 10 year Business Plan, after due consideration and approval by its Board of Directors or such competent authority.

- A5.3.2. The Business Plan shall be based on due considerations of related factors and forecast components for the period including clear rationale for projections of various parameters and, should be submitted along with an MS Excel 2003/ MS Excel 2007 based model.
- A5.3.3. The Multi Year Tariff Proposal should reconcile with the Business Plan under submission.
- A5.3.4. The Business Plan should summarize and project key financial statements for each year of the plan (Balance Sheet, P&L Statement and Cash Flow Statement) in the specified Form F-2(a), F-2(b) and F-2(c), respectively and should clearly explain how items have been accounted for, including definitions (explanations) of turnover, asset valuation approaches, depreciation, taxation and other operational parameters. Additional supporting schedules or justifications shall be provided in such form and manner as contained in audited accounts.
- A5.3.5. The aggregate forecasted values in financial statements, to be submitted in the specified forms, must reconcile with the forecasted values under Regulatory Building Blocks.
- A5.3.6. The audited Balance Sheet, P&L Statement and Cash Flow statements, along with supporting schedules or justifications, for the previous two financial years should be submitted. Audited statements shall be used as the base for forecast of Regulatory Building Blocks for the Control Period. No discrepancy is expected between the Audited statements and submissions in the Business Plan for the corresponding years save to the extent necessitated by justifiable reasons and for which reconciliation with Audited Statements shall be provided.

A5.4. Information pertaining to physical assets

- A5.4.1. Airport Operator(s) shall provide information pertaining to the historic and projected relevant physical infrastructure. Information shall be provided on the numbers and capacities of such assets including the basis and

justification for arriving at a particular capacity should be clearly specified.
For example:

- A5.4.1.1. Passenger terminals used for international and domestic arrival and departure and their peak hour capacity and annual capacity
- A5.4.1.2. Cargo terminals for export-import and domestic cargo and their peak hour capacity and annual capacity
- A5.4.1.3. Number of Runways and for each runway, its use, peak hour capacity and annual capacity
- A5.4.1.4. Number of other airside facilities like parking bays, hangars etc.
- A5.4.1.5. Number of other terminal facilities like baggage systems, conveyer belts etc.
- A5.4.1.6. Total existing floor area in square meters of passenger terminal buildings.
- A5.4.1.7. Existing floor area in square meters of passenger terminal buildings broken down into revenue generating areas for example:
 - (a) Retail areas
 - (b) Commercial office areas (airlines, other airport Users)
 - (c) Advertisement areas
 - (d) Ticketing areas
 - (e) Duty free areas
 - (f) Car Parking Facilities
 - (g) Air Cargo Facilities
 - (h) VIP or special airline passenger room areas, etc.

A5.4.1.8. Along with total floor area assigned to a particular activity, a further area breakup for each activity based on utilization plan/ capacity for the total area shall be provided, as illustrated for a Car Parking example below:

- (a) Total parking spaces
- (b) Number of public parking spaces
- (c) Number of employee parking spaces
- (d) Number of taxi parking spaces
- (e) Number of bus parking spaces

A5.4.1.9. Detailed methodology and basis for allocation of common spaces among such areas shall be provided

A5.4.1.10. Template formats forms F3 and F4 should be used for providing such information in a consolidated view. Separate independent formats could be used for providing detailed backup and justification behind the information.

A5.5. Information relating to Regulatory Building Blocks (read with Clause 5)

A5.5.1. The Multi Year Tariff Proposal should present detailed justification for each of the Regulatory Building Blocks enumerated herein below:-

A5.5.2. Fair Rate of Return

A5.5.2.1. The Airport Operator(s) should submit an estimate of the required FRoR, in the specified Form F5, and use the said FRoR for the purpose of calculating the Aggregate Revenue Requirement in the Multi Year Tariff Proposal under submission.

A5.5.2.2. Airport Operator(s) shall indicate its assessment of the possible (i) low; (ii) high; and (iii) most likely estimates of all the

components in calculating the FRoR, subject to information required in sub-sections A5.5.2.3, A5.5.2.4 and A5.5.2.5 of this Section A5.5.

A5.5.2.3. Cost of equity

- (a) The Airport Operator(s) shall submit its assessment of cost of equity based on Capital Asset Pricing Model with supporting evidence including:
 - (i) The risk free rate: Source / evidence shall be provided for the nominal risk free rate estimated including any assumptions and justifications regarding inflation rates.
 - (ii) The equity market risk premium: Source / evidence of the equity market risk premium used, including: methodology for calculation (geometric / arithmetic), base country used, any adjustments applied for country risk, time period of data considered and the type of risk free asset used for comparison of return.
 - (iii) Equity beta: The approach used to estimate the equity beta, the data source, the systematic risks of the Airport Operator, the underlying asset and debt beta assumptions. Where international comparator analysis of betas is undertaken with other comparable Airport Operator(s), a detailed justification of the basis for selecting the comparators would be required, including the regulatory regime faced by such Airport Operator(s), its consistency **with the Authority's regulatory approach and any** differences in the commercial environment.
- (b) The Airport Operator(s) shall also provide a range and a central point estimate of the cost of equity, with detailed justification for the point estimate chosen.

- (c) Airport Operator(s) shall illustrate the sensitivity to changes in various assumptions for the most likely estimate together with a detailed sensitivity analysis in context thereto.

A5.5.2.4. Cost of debt

- (a) The Airport Operator shall submit details of the forecast cost of existing debt or any future debt proposed to be raised during the Control Period.
- (b) Where the Airport Operator does not have any existing debt and also does not proposes to raise any future debt during the Control Period, it shall submit an estimate of the debt cost applicable to the Airport Operator under a competitive procurement scenario.
- (c) The Airport Operator(s) shall submit details of its approach to raising debt, including:
 - (i) The sources of all debt, including any intra-group loans or interest free loans and grants;
 - (ii) Details of the procedure it undertakes when raising debt;
 - (iii) Method used by Airport Operator to assesses different debt financing options and the approval procedures in context thereto.
- (d) The Airport Operator(s) shall submit an estimate of the repayments, interest payments and outstanding at the end of each Tariff Year for all kinds of debt expected to be incurred over the Control Period and provide a weighted average cost of debt for the same. In addition, Airport Operator(s) shall submit, in the specified Form 6(a), information related to each current and future loan as under:

- (i) Source;
- (ii) Type of Loan (Project Specific/ Working Capital);
- (iii) Total Loan Amount Sanctioned;
- (iv) Loan Tenure;
- (v) Interest Type (Fixed/ Floating);
- (vi) If Fixed interest, Rate of Interest %;
- (vii) Base Rate, if Floating Interest;
- (viii) Margin, if Floating Interest;
- (ix) Are there any caps/floor;
- (x) If above is yes, specify caps/floor;
- (xi) Moratorium Period;
- (xii) Moratorium effective from;
- (xiii) Repayment Period;
- (xiv) Repayment Start Date;
- (xv) Repayment Frequency;
- (xvi) Arrangement Fees;
- (xvii) Outstanding Loan;
- (xviii) Other terms;
- (xix) Currency denomination of loan and rate (where loan is not in INR).

- (e) Where the Airport Operator expects to raise further debt during the Control Period, it shall submit a forecast of the details of such debt in a manner consistent with the information requirements indicated hereinabove.

- (f) Where the Airport Operator has entered into variable rate arrangements, a forecast of the relevant base rate should be provided (e.g. LIBOR) from a recognised source
- (g) Details of interest and finance charges, arrangement fees incurred for raising finance and capitalized during the Tariff Year shall be submitted as in the specified Form F6(b).

A5.5.2.5. Gearing

- (a) The Airport Operator(s) shall submit details of its capital structure (current capital structure and forecast capital structure) in respect of the Control Period. The said details shall be supported by evidence, in form of underlying information or documentation relating to efficiency of such capital structure.
- (b) Information shall be submitted, in the specified Form F6(c), in respect of all stakeholder contributions, grants and subsidies, if any, as may have been received by the Airport Operator. Further, additional information or justifications shall be provided in such form and manner as may be appropriate for the said purpose.
- (c) Submissions shall be evidenced by documents in support thereof.

A5.5.3. Regulatory Asset Base

- A5.5.3.1. Information on initial RAB as required in Clause 5.2.4, shall be submitted in the specified Form F7, and shall contain the following:
 - (a) Information on stakeholder contributions for the asset (historical and proposed), as specified in Form-F8(a), and shall contain details, including the maximum amount of stakeholder contribution approved for the project, year of approval, approved tenure for stakeholder contribution, accumulated

contributions as on the date of submission of the Multi Year Tariff Proposal and the annual collection, if any, proposed in each Tariff Year in the Control Period.

- (b) Assets proposed to be excluded from the RAB together with detailed justifications and shall be submitted in the specified Form F8(b).

A5.5.3.2. The forecast RAB shall include the forecast of the capital expenditure to be commissioned during each Tariff Year of the Control Period including the adjustment(s) for forecast depreciation for the same. The forecast RAB shall include information on the asset disposals, including land or building, whether through sale, partial sale, long lease or joint venture and disposals or transfers by the Airport Operator to another entity, if any.

A5.5.3.3. The forecast WIP assets shall include the forecast WIP balances in reference to the expected date of commissioning of such asset(s) for each Tariff Year in the Control Period.

A5.5.3.4. Summary of information shall be submitted in the specified Form F9.

A5.5.3.5. The Airport Operator(s) shall submit a 10 year capital expenditure plan for the purpose of forecast RAB and WIP Assets. The capital expenditure plan shall provide details of expenditure made by the Airport Operator, as under:

- (a) Projects yet to be completed (WIP);
- (b) Projects completed in the previous Control Period;
- (c) Planned capital expenditure for the next 10 years.

A5.5.3.6. The Airport Operator shall submit a detailed description of project, for each individual project, including :

- (a) Project technical information;
- (b) Justifications for project(s), including targeted improvement in context to improving quality of service and enhancing customer satisfaction, upgrading technology, creating additional capacity for providing efficient service;
- (c) Phasing of the project;
- (d) Costing of the project;
- (e) Total capital expenditure forecasted for the project;
- (f) Total capital expenditure incurred for the project;
- (g) Duration and completion dates of planning, design and construction phases;
- (h) Phase-wise commissioning date of the project;
- (i) Year-wise capital expenditure additions, commissioning, WIP for the project;
- (j) Year-wise sources of funding for the project, clearly highlighting therein the extent of on and off-balance sheet financing and impact on gearing;
- (k) Average actual and forecasted debt rate for the project during the construction phase;
- (l) Interest charges, finance charges and other expense capitalised during the Tariff Year.

A5.5.3.7. A detailed description of project costs incurred or expected to be incurred for each individual project including :

- (a) Development costs (soft costs) classified into (i) planning; (ii) design; (iii) inspection; (iv) construction management; (v) environmental; (vi) permits; and (vii) geotechnical costs;
- (b) Construction costs classified into (i) gross quantities; and (ii) unit costs of all major project components;
- (c) Other cost of the project including (i) financial cost; (ii) land acquisition costs; and (iii) relocation costs.

A5.5.3.8. Airport Operator(s) shall submit, for the second and all subsequent Control Period(s), in the specified Form F10(a), year-wise information on forecasted and actual capital expenditure, commissioned or undertaken, during the previous Control Period.

A5.5.3.9. The capital expenditure plan, including an estimate of year-wise expenditure and commissioning planned for various assets, shall be submitted in the specified Form F10(b).

A5.5.3.10. Estimates of sources of financing for total capital expenditure proposed during the each Tariff Year shall be submitted in the specified Form 10(c).

A5.5.3.11. Expenses proposed to be capitalised during the next Control Period shall be submitted in the specified Form F10(d).

A5.5.3.12. Summary of information pertaining to year-wise opening, additions, commissioning and closing values of WIP shall be submitted in the specified Form F10(e).

A5.5.4. Depreciation

A5.5.4.1. For all assets identified in either the initial or forecast RAB, the following information shall be provided:

- (a) Forecast of depreciation by fixed asset; and
- (b) Depreciation rate by asset, including justification for the proposed rate based on Companies Act, 1956 or any other evidence based on reasonable estimates of useful economic life of the asset.

A5.5.5. Operation and Maintenance Expenditure

A5.5.5.1. Airport Operator(s) shall submit details on all operating expenses (historical actual costs and projected expenses for the Control Period) with detailed justifications, assumptions and cost drivers used for calculating such costs. The Airport Operator(s) shall clearly identify efficiency considerations, if any, for each cost category in estimating operation and maintenance expenditure during the Control Period.

A5.5.5.2. Payroll costs - The Airport Operator(s) shall provide all payroll costs related to full-time employees as well as outsourcing costs as under:

- (a) Department-wise full-time and part-time/ contract employee numbers to be submitted under various heads, in specified Form F11(a).
- (b) Department-wise payroll costs to be submitted under various heads, in specified Form F11(b), including :
 - (i) salary, allowances and benefits to employees
 - (ii) PF Contribution, Gratuity, Superannuation and other such funds
 - (iii) Overtime
 - (iv) Training costs
 - (v) Staff welfare expenses with their detailed breakup

(c) Assumptions and justifications used in the calculations shall be supported by relevant information including historical trends, productivity indicators and cost drivers.

(d) Payroll costs related to capital projects shall be submitted separately.

A5.5.5.3. Administration and general expenses - Airport Operator(s) shall submit, in specified Form F11(c), as under:

(a) all general administration and corporate costs, including break-up of all expenses related thereto:

(b) Provided that the said costs shall be further segregated as :

(i) **Administration charges, including director's sitting fees,** communication expenses, travelling and conveyance, advertisement, office maintenance, printing and stationery, other allocated overhead expenses.

(ii) **Legal and Auditor's Fees**

(iii) Consultancy and advisory expenses

(iv) Other charges including land lease rent, insurance costs, miscellaneous expenses

(c) Copy of Board approvals, consultancy, legal, and other contracts, insurance documents, rent agreements and other relevant documents shall be submitted as proof thereof.

(d) Costs related to capital projects proposed to be capitalized shall be submitted separately.

A5.5.5.4. Repair and maintenance costs - Airport Operator(s) shall submit, in specified Form F11(d), as under:

- (a) details of repair and maintenance costs related to all asset categories as defined in the depreciation schedule, for example:
 - (i) Building
 - (ii) Plant and machinery
 - (iii) Electrical installations
 - (iv) Furniture
 - (v) IT
 - (vi) Office equipment
 - (vii) Vehicles
- (b) Assumptions and justifications used in the calculations shall be supported by relevant information including historical trends cost driver.

A5.5.5.5. Utilities & outsourcing costs - Airport Operator(s) shall submit, in specified Form F11(e), as under:

- (a) utilities related costs, including electricity charges and water charges. The detailed assumptions used for arriving at such costs including the number of units consumed, effective per unit rate and efficiencies achieved, if any, shall be clearly highlighted
- (b) department-wise outsourcing costs including the basis for arriving at such costs. The said submission shall be accompanied by documents in support thereof including, contractual documents, details of procedures followed in awarding the said contracts and resolutions of the Board in relation thereto:
- (c) Provided that the department-wise list shall be the same as indicated in Section A5.5.5.2 hereinabove.

- (d) Costs related to capital projects proposed to be capitalized shall be submitted separately.
- A5.5.5.6. Other Outflows - Airport Operator(s) shall submit, in specified Form F11 (f), details for any other operating costs, including detailed justifications along with cost drivers, elasticity, any contractual documents etc.
- A5.5.5.7. Current Assets and Liabilities - Airport Operator(s) shall submit, in specified Form F11 (g), details for their Current Assets and Current Liabilities.
- A5.5.5.8. Airport Operator(s) shall submit, in specified Form F11 (a) to Form F11(f), for each operating cost, whether such cost forms part of other mandated operating costs and statutory operating costs, if any, including detailed justifications along with cost drivers, elasticity, any contractual documents etc. The other mandated operating costs shall include costs incurred in compliance of directions received from other regulatory agencies including Director General Civil Aviation; and statutory operating costs shall include costs incurred on account of fees, levies, taxes and other such charges, directly imposed on and paid for by the Airport Operator on final product/ service provided by the Airport Operator. For avoidance of doubt, any change in statutory operating cost relating to any input products or services procured by the Airport Operator shall not be covered.

A5.6. Historical and forecasted Volume

- A5.6.1. The Airport Operator(s) shall submit 10 year historical Volume broken down by type of service provided and shall be broken down into various heads listed below:
 - A5.6.1.1. Commercial airlines scheduled at the airport;

- A5.6.1.2. Annual volume of embarking and disembarking passengers (with further categorisation into Scheduled and Non-Scheduled, and domestic and international);
 - A5.6.1.3. Annual volume of international and domestic aircrafts movements (for both passengers and cargo separately, with further categorisation into Scheduled and Non-Scheduled) by aircraft types and weight categories;
 - A5.6.1.4. Annual loaded-unloaded (for both export-import cargo) volumes by cargo operator and by type of cargo moved (i.e., general, perishable, valuable cargo etc.);
 - A5.6.1.5. Maximum peak hour volume per year of international and domestic passengers;
 - A5.6.1.6. Average Passenger per ATM for both international and domestic.
- A5.6.2. The Airport Operator(s) shall submit a traffic forecast model for (i) the Control Period; and (ii) long term forecast for 15 years, clearly listing therein the core assumptions and justifications including GDP growth rates, elasticity applied, traffic assumptions, any other critical assumptions for the purposes of reviewing the forecasts. The forecasts shall be broken down into various heads listed below:
- A5.6.2.1. Annual forecasted volume of embarking and disembarking passengers (with further categorisation into Scheduled and Non-Scheduled, and domestic and international) for each airline;
 - A5.6.2.2. Annual forecasted volume of international and domestic aircrafts movements (for both passengers and cargo separately, with further categorisation into Scheduled and Non-Scheduled) for each airline by aircraft types and weight categories;
 - A5.6.2.3. Annual forecasted loaded-unloaded (for both export-import cargo) volumes by cargo operator and by type of cargo moved (i.e., general, perishable, valuable cargo etc.);

- A5.6.2.4. Average forecasted Passenger per ATM
- A5.6.3. The traffic forecast process shall include a user consultation process and the Authority expects the user consultation to be completed within an overall timeline of 3 months from the time complete information is made available to the Users.
- A5.6.4. The key sensitive variables impacting the forecasts, its expected range and impact on the forecasts shall be clearly explained.
- A5.6.5. The Airport Operator(s) shall submit a comparison of forecast numbers to other relevant forecasts (for example, forecasts made by IATA or other industry forums).
- A5.6.6. The forecast of passenger number shall be submitted by the Airport Operator(s) in the specified Form F12 (a) and F12 (b). The forecast shall include the number of embarking passengers plus the number of disembarking passengers during the year.
- A5.6.7. The historic and forecast ATM shall be submitted by Airport Operator(s) in the specified Form F12 (c).
- A5.6.8. The forecast of cargo volumes for provision of its service shall be submitted by the Airport Operator(s) in the specified Form F12 (d).
- A5.6.9. Additional historic and projected information, related to ATMs, shall be provided in the specified Form F12 (e) and Form F12 (f).
- A5.6.10. The forecast of fuel throughput shall be submitted by Airport Operator(s), if applicable, in the specified Form F12 (g).
- A5.6.11. The approach to operationalising the forecast error correction mechanism has been detailed in Clause 6.15. The proposed lower and upper band for forecast error correction term as mentioned in the Guidelines shall be provided in the specified Form F12 (a).

A5.7. Historical Revenues

- A5.7.1. The Airport Operator(s) shall submit revenues received under the following heads, including the schedule of historic charges:

- A5.7.1.1. Break up of all revenues from Regulated Service(s) in the specified Form F13 (a).
- A5.7.1.2. Break up of all other revenue generating activities in the specified Form F13 (b). The details shall be supported by:
 - (a) The forecast of revenues from services other than Regulated Service(s) including bottom-up projections of such revenues prepared by the Airport Operator, benchmarking of revenue levels.
 - (b) Description and details of schedule of charges for all other than aeronautical revenue-generating activities
 - (c) List of all concessionaires and details of whether holding space under lease, license, or other agreement and all the contractual documents related to such trading and concession arrangements

A5.8. Procedure for preparing the performance monitoring plan

- A5.8.1. Airport Operator(s) shall provide details of the historic performance on the objective and subjective parameters specified by the Authority or any other historical service quality assessment.
- A5.8.2. Airport Operator(s) shall submit performance measurement plan to specify the implementation and measurement mechanism for quality of service parameters specified in these Guidelines. Airport Operator(s) shall prepare the plan based on the guideline prepared by the authority on the implementation mechanism in terms of measurement methods and data sources to be used.
- A5.8.3. For each objective parameter specified in these Guidelines, the Airport Operator shall submit the details as specified in Form 14 (a).
- A5.8.4. For subjective parameters specified, to be measured through ACI ASQ survey, the Airport Operator shall submit the complete survey methodology and data collection process in the performance measurement plan. The

performance measurement plan for subjective parameters shall be submitted in the specified Form 14 (b).

A5.9. Procedure for preparing the Annual Tariff Proposal (read with Clause 6.8)

A5.9.1. The Airport Operator(s) shall submit, for the consideration of the Authority, an Annual Tariff Proposal based on Estimated Maximum Allowed Yield per passenger for review of Tariff(s) to be charged in the following Tariff Year in a Control Period, in the specified Form B, Form F15 (a) and Form F15 (b). The Tariff(s), as proposed by the Airport Operator in the Annual Tariff Proposal, shall be on non-discriminatory basis, with reference to conditions of Tariff(s), volume of the discount, rationale behind giving the discount and such other factors as may be relevant. The said proposal shall be supported by the details of consultation with stakeholders along with:

A5.9.1.1. documented evidence that consultations with stakeholders have been undertaken;

A5.9.1.2. summary of concerns raised by the stakeholders;

A5.9.1.3. details of remedial action, if any, undertaken by the Airport Operator, with reasons, in respect of the concerns so raised;

A5.9.1.4. reasons for not addressing the balance concerns.

A5.9.2. Airport Operator(s) shall detail the specification of tariffs in terms of tariff types proposed (tariff for Regulated Service(s), user development fee (UDF), development fee (DF), as well as tariff categories proposed for each tariff type (based on weight of aircraft, domestic / international passengers, etc.). Airport Operator shall submit details on the proposed tariffs for first Tariff Year of the Control Period and indicative charges for rest of the control period must be specified. The specified Form F15 (b) should be used for the purpose. Further, additional information or justifications shall be provided in such form and manner as may be appropriate for the said purpose.

- A5.9.3. Airport Operator(s) shall also submit coherent cases for levy of UDF and DF with appropriate justification and evidence.
- A5.9.4. Where the Airport Operator considers that a UDF charge is required, it shall specify the proposed UDF levy for each Tariff Year of the Control Period as part of the overall yield per passenger, supported by the following:
- A5.9.4.1. Justification / evidence for requirement of levying UDF as compared to tariffs for other Regulated Service(s);
 - A5.9.4.2. Evidence of impact on other aeronautical Tariffs if UDF was not levied; and
 - A5.9.4.3. Evidence of **relative ‘ability to pay’ for different categories of passengers.**
- A5.9.5. While proposing any pre-funding in the form of development fees (DF), the Airport Operators shall submit clear justification that pre-funding is in the long term interest of Users and that User consultation has been undertaken with respect to the same.
- A5.9.6. Airport Operator(s) shall also outline the impact of levying DF on the level of other Tariff(s).
- A5.9.7. The proposal for levying DF shall be supported with detailed evidence / justification including:
- A5.9.7.1. Details of investments that the receipts from the DF levy are proposed to cover;
 - A5.9.7.2. Evidence of user consultation on proposed investments for DF funding;
 - A5.9.7.3. Evidence of alternative measures investigated for funding proposed investments;
 - A5.9.7.4. Evidence of potential impact of levying DF on the financial viability of investments; and

A5.9.7.5. Evidence of potential detriment to Users in absence of the proposed DF levy and undertaking of corresponding investments.

A5.10. Procedure for preparing the Annual Compliance Statement (read with Clause 6.11)

A5.10.1. Airport Operator(s) shall submit to the Authority an Annual Compliance Statement, in accordance with the requirement outlined above in Clause 6.11, and in the specified Form C and Form F16.

A5.10.2. In addition to the above, Airport Operator(s) shall submit information pertaining to each Tariff Year on the following:

A5.10.2.1. Performance report on the Regulatory Building Blocks, in the specified Form F17;

A5.10.2.2. Revenues from Regulated Service(s) relating to individual Tariff(s), in the specified Form F18;

A5.10.2.3. Revenue from services other than Regulated Service(s), in the specified Form F19;

A5.10.2.4. Operation and maintenance expenditure, in the specified Form F20, including details on any individual operation and maintenance expenditure not identified in the Multi Year Tariff Order. The statement shall be supported by reconciliation between operation and maintenance expenditure and the audited accounts;

A5.10.2.5. Cash flow statement, in the specified Form F2(c). The statement shall be supported by reconciliation with the net cash position in the audited accounts;

A5.10.2.6. P&L reconciliation statement, in the specified Form F21. The statement shall be supported by reconciliation with the operating profit in the audited accounts;

A5.10.2.7. RAB reconciliation statement, in the specified Form F22, including details on the calculation of the opening and closing RAB for the Tariff Year and, adjustments for actual capital expenditure, actual disposal proceeds, actual depreciation. The statement shall be supported by reconciliation between the fixed assets in the audited accounts and the closing RAB including adjustments, if any.

A5.10.3. The Airport Operator(s) shall have the information provided in Section A5.10.1, and A5.10.2 approved by its Board of Directors or other such competent authority, as the case may be, and certified by an independent auditor confirming the genuineness of the information contained therein.

A5.11. Procedure for preparing quarterly quality of service performance report

A5.11.1. Airport operators shall submit to the Authority, every quarter, a performance report on quality of service parameters. The performance report shall provide details on every objective and subjective parameter the benchmark achieved in every month, measured as per the approved performance measurement plan in the Multi Year Tariff Order.

A5.11.2. For each quality of service parameter (objective and subjective) measured every month, the Airport Operator shall provide explanation including the following:

A5.11.2.1. Airport infrastructure or facilities included in measurement ;

A5.11.2.2. Data collection sources and process;

A5.11.2.3. Periodicity of measurement done every month;

A5.11.2.4. Calculation mechanism for achieved benchmark;

A5.11.2.5. Deviation from the performance measurement plan, if any;

A5.11.2.6. Reasons for underperformance, if any.

A5.11.3. The achieved performance shall be summarized in the quarterly quality of service performance reports in the specified Form F23 (a) and F23 (b).

A5.11.4. The rebate incidence, as applicable, shall be summarized in the quarterly quality of service performance reports in the specified Form F24 (a) and F24 (b).

Schedule

This Schedule contains the various specified forms that relate to specific Clause(s) of the Guidelines or Section(s) of the Appendix, as the case may be.

Form A: (ref: Section A5.1 of Appendix 5)

BEFORE THE AIRPORTS ECONOMIC REGULATORY AUTHORITY OF INDIA

AT NEW DELHI

SUBMISSION OF MULTI YEAR TARIFF PROPOSAL FOR AND ON BEHALF OF:

M/S

I, -----, aged----- resident of ----- acting in my official capacity as ----- in M/s----- having its registered office at ----- do hereby state and affirm as under that:

1. That I am duly authorized to act for and on behalf of M/s ----- in the matter of making this submission before the Airports Economic Regulatory Authority of India, New Delhi ('AERA');
2. I am competent to make this submission before AERA;
3. I am making this submission in my official capacity and the facts stated herein are based on official records ;
4. The contents of this submission which include (i) Business Plan; (ii) Information pertaining to physical assets; (iii) Information relating to the Regulatory Building Blocks; (iv) Historical and Forecasted volumes; and (v) Historical revenues, are correct and true to my knowledge and belief and nothing material has been concealed therefrom.

Sd/

Place

Date:

BEFORE THE AIRPORTS ECONOMIC REGULATORY AUTHORITY OF INDIA

AT NEW DELHI

**SUBMISSION OF PROPOSAL FOR DETERMINATION OF ANNUAL TARIFF FOR AND ON
BEHALF OF:**

M/S

I, -----, aged----- resident of ----- acting in my
official capacity as ----- in M/s----- having its
registered office at ----- do hereby state and affirm as under that:

1. That I am duly authorized to act for and on behalf of M/s ----- in the
matter of making this submission before the Airports Economic Regulation Authority of
India, New Delhi ('AERA');
2. I am competent to make this submission before AERA;
3. I am making this submission in my official capacity and the facts stated herein are based
on official records ;
4. The contents of the Annual Tariff Proposal submission which include (i) Estimated
Maximum Allowed Yield per passenger (where determined by the Authority); (ii)
Proposed detailed break-up of Tariff(s) (in context to Estimated Maximum Allowed
Yield per passenger where determined by the Authority); and (iii) Justifications, are
correct and true to my knowledge and belief and nothing material has been concealed
there from.

Sd/

Place

Date:

BEFORE THE AIRPORTS ECONOMIC REGULATORY AUTHORITY OF INDIA

AT NEW DELHI

SUBMISSION OF ANNUAL COMPLIANCE STATEMENT FOR AND ON BEHALF OF:

M/S

I, -----, aged----- resident of ----- acting in my official capacity as ----- in M/s----- having its registered office at ----- do hereby state and affirm as under that:

1. That I am duly authorized to act for and on behalf of M/s ----- in the matter of making this submission before the Airports Economic Regulatory Authority of India, New Delhi ('AERA');
2. I am competent to make this submission before AERA;
3. I am making this submission in my official capacity and the facts stated herein are based on official records ;
4. The contents of the Annual Compliance Statement submission are correct and true to my knowledge and belief and nothing material has been concealed there from.

Sd/

Place

Date:

Form F1: Historical and Proposed Aggregate Revenue Requirement (ref: Section A5.2)

Sl. No.	Aggregate Revenue Requirement	Last available audited year#	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
1	Aggregate Revenue Requirement							

* Projected values to be provided
Information for last financial year for which audited accounts are available

S.N.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	SOURCES OF FUNDS												
	A) Shareholders' Funds												
	<i>a) Share Capital</i>												
	<i>b) Share Application Money</i>												
	<i>c) Reserves and Surplus</i>												
	...												
	B) Loan Funds												
	<i>a) Secured Loans</i>												
	<i>b) Unsecured Loans</i>												
	...												
	C) Capital Grants												
	...												
	D) Deferred Tax Liability												
	...												
	TOTAL SOURCES OF FUNDS												
2	APPLICATION OF FUNDS												
	A) Fixed Assets												
	<i>a) Gross Block (Net of assets not in use)</i>												
	<i>b) less: Accumulated Depreciation</i>												
	<i>c) Net Block</i>												
	<i>d) Capital Work in Progress</i>												
	...												
	B) Investments												
	C) Deferred Tax Assets												
	D) Current Assets, Loans and Advances												
	<i>a) Sundry Debtors</i>												
	<i>b) Cash and Bank Balances</i>												
	<i>c) Inventories</i>												
	<i>d) Other Current Assets</i>												
	<i>e) Loans and Advances</i>												
	...												
	Less: Current Liabilities and provisions:												
	<i>a) Liabilities</i>												
	<i>b) Provisions</i>												
	...												
	Net Current Assets												
	TOTAL APPLICATION OF FUNDS												

Fields in italics are indicative only

Form F2(b): Historical and Projected Profit and loss account (ref: Section A5.3)

S.N.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Revenue												
	<i>Revenues from Regulated Services</i>												
	<i>Revenues from other than Regulated Services</i>												
2	Operation & maintenance expenditure												
	<i>Payroll Costs</i>												
	<i>Administrative and General Costs</i>												
	<i>Utilities and Outsourcing Costs</i>												
	<i>Concession Fees</i>												
	<i>Repair and Maintenance Costs</i>												
3	Earnings before depreciation, interest and taxation (EBDIT)												
	Depreciation and Amortisation												
4	Earnings before interest and taxation (EBIT)												
	Total interest and finance charges												
5	Profit / loss before tax												
	Provision for taxation												
6	Profit / loss after taxation												
7	Balance Carried to Balance Sheet												

Fields in italics are indicative only

S.N.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Cashflow from operating activities												
	Net Profit before taxation												
	Adjustment for :												
	<i>Depreciation and Amortisation</i>												
	<i>Loss / (Profit) on sale of assets(net)</i>												
	<i>Interest Income</i>												
	<i>Provisions - Additions(Write back) Net</i>												
	Operating Profit before working capital changes												
	Adjustment for :												
	<i>Decrease(increase) in Trade Receivables</i>												
	<i>Decrease(increase) in Inventories</i>												
	<i>Loans and Advances</i>												
	<i>(Decrease)/increase in Sundry Creditors</i>												
	Cash generated from operation												
	...												
	Net Cash Flow from Operating Activities												
2	Cashflow from investing activities												
	<i>Detail of cashflow from investing activity #1</i>												
	<i>Detail of cashflow from investing activity #2</i>												
												
3	Cashflow from financing activities												
	<i>Detail of cashflow from financing activity #1</i>												
	<i>Detail of cashflow from financing activity #2</i>												
												
4	Net change in cash and cash equivalents												
5	Cash and Cash Equivalents at the beginning of the period												
6	Cash and Cash Equivalents at the end of the period												

Fields in italics are indicative only

Form F3 - Historical and Projected Revenue Generating Area breakup at the airport (ref: Section A5.4.1)

Breakup of Revenue Generating Areas in sq. mt.													
S.N.		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-2011	Tariff Year 1	Tariff year 2	.....	Tariff year 5
1	Retail												
2	Commercial offices												
3	Advertisement												
4	Ticketing												
5	Duty Free Shops												
6	Car Parking												
7	....											

* Methodology and basis of allocation of common spaces between various areas must be clearly stated

Passenger Terminal capacity																				
S.N.	Terminal Building	Terminal Use		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1		International Departure	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	
2		International Arrival	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	
3		Domestic Departure	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	
4		Domestic Arrival	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	

Please provide the data for all terminals

Cargo Terminal capacity																				
S.N.	Terminal Building	Terminal Use		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1		Export	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	
2		Import	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	
3		Domestic - Outbound	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	
4		Domestic - Inbound	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	

Please provide the data for all terminal uses

Runway capacity																				
S.N.	Runway	Runway Use		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1		International Departure	Declared Peak Hour Capacity																	
			Declared Annual Capacity																	
2			Declared Peak Hour Capacity																	
			Declared Annual Capacity																	

Please provide the data for all runways

Other Infrastructure Capacities																				
S.N.				2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1	Airside Facilities	Parking Bays																		
		Hangars																		
		...																		
2	Terminal Facilities	Baggage Systems																		
		...																		
3	Landside Facilities	Car Parking																		
		...																		

Please provide the data for all such infrastructure assets. Some of them have been illustrated above

Form F5: Cost of Equity and Post-tax FRoR Forecast (ref: Section A5.5.2)

	Tariff Year 1			Tariff Year 2			Tariff Year 3			Tariff Year 4			Tariff Year 5		
	Low	High	Point Estimate	Low	High	Point Estimate	Low	High	Point Estimate	Low	High	Point Estimate	Low	High	Point Estimate
Gearing															
Pre-tax cost of debt															
Risk-free rate															
Equity-risk premium															
Beta															
Post-tax cost of equity															
Post-tax FRoR															

* Forecasted FRoR in this sheet should be used for determining Aggregate Revenue Requirement in the Multi Year Tariff Proposal

Form F6 (a): Loan Master (ref: Section A5.5.2)

Provide details of all debts (all types of debt instruments).

Particulars	Last available audited year#	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Secured Loan							
Repayments during the year							
Interest payments during the year							
Outstanding at the end of the year							
Unsecured Loan							
Repayments during the year							
Interest payments during the year							
Outstanding at the end of the year							

For every loan (actual/proposed, secured/unsecured) the following information should also be provided/ indicated

1	Particulars
2	Source
3	Type of Loan (PS/ WC)
4	If PS, then indicate the Project/ Apportionment to a project
5	Total Loan Amount Sanctioned
6	Loan Tenure
7	Interest Type (Fixed/ Floating)
8	If Fixed interest, rate of Interest %
9	Base Rate, if Floating Interest
10	Margin, if Floating Interest
11	Are there any Caps/Floor?
12	If above is yes, specify caps.floor
13	Moratorium Period
14	Moratorium effective from
15	Repayment Period
16	Repayment Start Date
17	Repayment Frequency
18	Arrangement Fees
19	Outstanding Loan
20	Other terms

Legend

PS	Project Specific
WC	Working Capital

> Data from this sheet should be linked to all the sheets wherever details about Debt, Interest Charges, Arrangement fees, Cost of Debt etc. is getting used

* Projected values to be provided

Information for last financial year for which audited accounts are available

Form F6(b): Summary Statement of Interest and Finance Charges (ref: Section A5.5.2)

Sl.No.	Particulars	Last available audited year ^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	1 Interest charges on Government Loans, Bonds And Advances							
	Government Loans							
	Bonds							
	Foreign Currency Loans / Credits							
	Debentures							
							
	Total							
2	Interest on Long Term Loans / Credits from the FIs/banks/organisations approved by the Government							
	Secured							
							
	Unsecured							
							
	Total							
	Total = 1+2							
B	Cost of raising finance & Bank Charges on project loans							
C	Grand Total Of Interest & Finance Charges: A + B							
D	Less: Interest & Finance Charges Capitalised							
E	Net Total of Interest and Finance Charges on Project related Loans							
F	Interest on Working Capital Loans							
G	Other interest charges (Provide head-wise details)							
H	Total interest and finance charges chargeable to P&L account (E+F+G)							

* Projected values to be provided

Fields in italics are indicative only

^ Information for last financial year for which audited accounts are available

Form F6 (c): Contributions, Grants and subsidies Master (ref: Section A5.5.2)

Contributions

Particulars	Source	Total Amount	Last available audited year#			Financial Year before Tariff Year 1*			Tariff Year 1			Tariff Year 2			Tariff Year 3			Tariff Year 4			Tariff Year 5		
			OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB
1																							
2																							

Grants

Particulars	Source	Total Amount	Last available audited year#			Financial Year before Tariff Year 1*			Tariff Year 1			Tariff Year 2			Tariff Year 3			Tariff Year 4			Tariff Year 5		
			OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB
1																							
2																							

Subsidies

Particulars	Source	Total Amount	Last available audited year#			Financial Year before Tariff Year 1*			Tariff Year 1			Tariff Year 2			Tariff Year 3			Tariff Year 4			Tariff Year 5		
			OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB
1																							
2																							

Legend

OB	Opening Balance for the year
Add.	Additions during the year
CB	Closing Balance for the year

* Projected values to be provided

Information for last financial year for which audited accounts are available

Fixed Asset already commissioned as on.....								
S.N.	Asset Name	Asset Type	Description of the Asset	Commission Date	Useful Life	Original Cost of Asset	Depreciation Rate	Accumulated Depreciation
1								
2								
3								
4								
5								

Details of User Contributions for the assets												
S.N.	Contribution name	Asset Name	Extent of User Contribution approved for the project	Year of approval	Tenure for User Contribution Collection	Actual Accumulated Collection till beginning of previous year	Accumulated Collection estimated till the beginning of first Tariff Year*	Total Collection proposed in Tariff Year 1	Total Collection proposed in Tariff Year 2	Total Collection proposed in Tariff Year 3	Total Collection proposed in Tariff Year 4	Total Collection proposed in Tariff Year 5
1	Grant	Asset A										
2		Asset B										
3		.....									
4	Development Fee	Asset C										
5		.....									

* Projected values to be provided
Fields in italics are indicative only

Form F8 (b): Format for providing proposed exclusions from RAB (ref: Section A5.5.3)

Details of Proposed Excluded Assets from RAB						
S.N.	Asset Name	Book Value	Accumulated Depreciation	Justifications for exclusion	Any Land associated with asset	If yes, Details of land
1	<i>Asset A</i>					
2	<i>Asset B</i>					
3	.....				
4	.....				
5	.....				

Fields in italics are indicative only

				Forecast for the Control Period				
		Last available audited year [^]	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Opening RAB							
	<i>Building</i>							
	<i>Plant & Machinery</i>							
	<i>Electrical Installation</i>							
	<i>Furniture and Fittings</i>							
							
B	Additions - WIP Capitalisation							
	<i>Building</i>							
	<i>Plant & Machinery</i>							
	<i>Electrical Installation</i>							
	<i>Furniture and Fittings</i>							
							
C	Disposals/ Transfers							
	<i>Building</i>							
	<i>Plant & Machinery</i>							
	<i>Electrical Installation</i>							
	<i>Furniture and Fittings</i>							
							
D	Depreciation Charge							
	<i>Building</i>							
	<i>Plant & Machinery</i>							
	<i>Electrical Installation</i>							
	<i>Furniture and Fittings</i>							
							
E	Closing RAB (A+B-C-D)							
	<i>Building</i>							
	<i>Plant & Machinery</i>							
	<i>Electrical Installation</i>							
	<i>Furniture and Fittings</i>							
							
F	Average RAB	-	-	-	-	-	-	-

* Projected values to be provided

Fields in italics are indicative only

[^] Information for last financial year for which audited accounts are available

Form F10 (a): Capital Projects Completed before current Review for Roll-Forward of RAB (ref: Section A5.5.3)

Project Details				Projected Capital Expenditure																			
S.N.	Project Name	Project Type	Comn. Date	Tariff Year 1				Tariff Year 2				Tariff Year 3				Tariff Year 4				Tariff Year 5			
				Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP
1	<i>Project 1</i>	<i>Buildings</i>																					
2	<i>Project 2</i>	<i>Vehicles</i>																					
3	<i>Project 3</i>	<i>P&M</i>																					
4	<i>Project 3</i>	<i>F&F</i>																					
..																					
Project Details				Actual Capital Expenditure																			
S.N.	Project Name	Project Type	Comn. Date	Tariff Year 1				Tariff Year 2				Tariff Year 3				Tariff Year 4				Tariff Year 5			
				Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP
1	<i>Project 1</i>	<i>Buildings</i>																					
2	<i>Project 2</i>	<i>Vehicles</i>																					
3	<i>Project 3</i>	<i>P&M</i>																					
4	<i>Project 3</i>	<i>F&F</i>																					

Legend	
Project name	Project Name should be a unique name or a primary key assigned to a capex project
Project Type	Type of the project and the asset class to which the capex project belongs
Comn. Date	Date on which the capital project was commenced
Capex	Year-wise Capex incurred on the project excluding any capital receipts like grants, user contributions etc.
WIP	Work-in-Progress at the end of every Tariff Year
Com.	Commissioning in a particular Tariff Year
CDate	Date of commissioning in a particular Tariff Year

Fields in italics are indicative only

Form F10 (b): Capital Expenditure Projected Plan - 10 year Master (ref: Section A5.5.3)

Note:- Information to be provided for 10 year period for all projects either spilling into the period or starting during the period

Project Details				Estimated WIP, Capex and Commissioning in each year																											
S.N.	Project Name	Project Type	Comn. Date	Financial Year before Tariff Year 1*			Tariff Year 1					Tariff Year 2					Tariff Year 3					.....					Tariff Year 10				
				TCAPEX	TCOMM	WIP	Capex	FinAlw	Com.	CDate	WIP	Capex	FinAlw	Com.	CDate	WIP	Capex	FinAlw	Com.	CDate	WIP	Capex	FinAlw	Com.	CDate	WIP	Capex	FinAlw	Com.	CDate	WIP
1	Project 1	Buildings																													
2	Project 2	Vehicles																													
3	Project 3	P&M																													
4	Project 3	F&F																													

Legend

Project name	Project Name should be a unique name or a primary key assigned to a capex project
Project Type	Type of the project and the asset class to which the capex project belongs
Comn. Date	Date on which the capital project was commenced
Capex	Year-wise Capex estimated to be incurred on the project excluding any capital receipts like grants, user contributions etc
WIP	Work-in-Progress at the end of every Tariff Year
Com.	Estimated commissioning in a particular Tariff Year
CDate	Estimated date of commissioning in a particular Tariff Year
TCAPEX	Total Capex incurred on the project till the end of previous Control Period excluding any capital receipts like grants, user contributions etc
TCOMM	Total commissioning on the project till the end of previous Control Period
FinAlw.	Project-wise Financing Allowance for the year

* Projected values to be provided

Fields in Italics are indicative only

Note:- Information to be provided for 10 year period for all projects either spilling into the period or starting during the period

Project Details		Tariff Year 1				Tariff Year 2				Tariff Year 3							Tariff Year 10			
SN.	Total Capex Planned	Internal Accrual	Equity infused	User Contributions	Total Debt	Internal Accrual	Equity infused	User Contributions	Total Debt	Internal Accrual	Equity infused	User Contributions	Total Debt	Internal Accrual	Equity infused	User Contributions	Total Debt	Internal Accrual	Equity infused	User Contributions	Total Debt

Legend	
Total Capex	Total Capex Planned indicates the total forecated capex for all assets during the next 10 years
Internal Accrual	Internal Accrual (from free reserves and surplus) in the year
Equity Infused	Equity Infusion planned during the year
User Contributions	Representing Development Fees/ User Contributions/ Capital Grants/ Subsidies etc. planned during the year for the capital project
Total Debt	Total Debt planned for funding capex during the year

Form F10 (d): Summary Statement of Expenses to be Capitalised (ref: Section A5.5.3)

Sl.No.	Particulars	Last available audited year#	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Interest and Finance Charges Capitalised							
B	Cost of raising finance & Bank Charges							
C	Other Expenses Capitalised							
	Employee Expenses							
	Administrative and General Expenses							
	Utilities and Outsourcing Expenses							
	Any Other expense being capitalised							
D	Total Expenses Being Capitalised (A+B+C)							

* Projected values to be provided

Information for last financial year for which audited accounts are available

Forecast WIP Assets						
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
E	Opening WIP Assets					
	<i>Building</i>					
	<i>Plant & Machinery</i>					
	<i>Electrical Installation</i>					
	<i>Furniture and Fittings</i>					
					
F	Additions - New WIP					
	<i>Building</i>					
	<i>Plant & Machinery</i>					
	<i>Electrical Installation</i>					
	<i>Furniture and Fittings</i>					
					
G	WIP Capitalization					
	<i>Building</i>					
	<i>Plant & Machinery</i>					
	<i>Electrical Installation</i>					
	<i>Furniture and Fittings</i>					
					
H	Closing WIP Assets					
	<i>Building</i>					
	<i>Plant & Machinery</i>					
	<i>Electrical Installation</i>					
	<i>Furniture and Fittings</i>					
					

Fields in italics are indicative only

Form F11 (a): Employee Strength (ref: Section A5.5.5)

S.N.	Particulars - with detailed breakup	Last available audited year^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Department-wise Full-Time Employees							
	<i>Department 1</i>							
	<i>Department 2</i>							
	<i>Department 3</i>							
	<i>Department 4</i>							
							
B	Department-wise Part-Time/ Contractual Employees							
	<i>Department 1</i>							
	<i>Department 2</i>							
	<i>Department 3</i>							
	<i>Department 4</i>							
							

* Projected values to be provided

Fields in italics are indicative only

^ Information for last financial year for which audited accounts are available

Form F11 (b): Payroll Related Expenditure and Provisions (ref: Section A5.5.5)

S.N.	Particulars - with detailed breakup	Last available audited year^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	<i>Salaries and Wages</i>							
B	<i>PF Contribution</i>							
C	<i>Medical Expenses</i>							
D	<i>Overtime</i>							
E	<i>Staff Welfare Fund</i>							
F	.....						
1	Grand Total							
2	Employee expenses capitalised							
3	Net Employee expenses (1)-(2)							

* Projected values to be provided

Fields in italics are indicative only

^ Information for last financial year for which audited accounts are available

Form F11 (c): Administration and General Expenditure (ref: Section A5.5.5)

S.N.	Particulars - with detailed breakup	Last available audited year ^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Administration Charges							
	<i>Director's Sitting Fees</i>							
	<i>Rates & Taxes</i>							
	<i>Lease / Rent</i>							
	<i>Rates & Taxes</i>							
	<i>Communication expenses</i>							
	<i>Travelling and Conveyance</i>							
	<i>Advertisement</i>							
	<i>Office Maintenance</i>							
	<i>Printing and Stationery</i>							
	<i>Allocated Overhead Expenses (Provide details)</i>							
							
B	Legal Charges/ Auditors's Fees							
	<i>Auditor's Fees</i>							
	<i>Legal Charges</i>							
							
C	Consultancy/ Advisory Expenses							
	<i>Consultancy Charges</i>							
	<i>Technical Fees</i>							
	<i>Other Professional Charges</i>							
							
D	Other Charges							
	<i>Land Lease</i>							
	<i>Insurance Costs</i>							
	<i>During Construction period</i>							
	<i>During Operation period</i>							
	<i>Event Management / Inauguration Expenses</i>							
	<i>Recruitment and Training Charges</i>							
	<i>Bank Charges</i>							
	<i>Miscellaneous Expenses</i>							
	<i>Interest on short term loans</i>							
							
E	Grand Total							
F	Administration & General expenses capitalised							
G	Net A&G expenses (E)-(F)							

* Projected values to be provided

Fields in italics are indicative only

^ Information for last financial year for which audited accounts are available

Form F11 (d): Repair and Maintenance Expenditure (ref: Section A5.5.5)

S.N.	Particulars - with detailed breakup	Last available audited year^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	<i>Building</i>							
B	<i>Plant & Machinery</i>							
C	<i>Electrical Installation</i>							
D	<i>Furniture and Fittings</i>							
E	.....						
1	Grand Total							

* Projected values to be provided

Fields in italics are indicative only

^ Information for last financial year for which audited accounts are available

Form F11 (e): Utilities and Outsourcing Expenditure (ref: Section A5.5.5)

S.N.	Particulars - with detailed breakup	Last available audited year^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Utilities Costs							
	<i>Power Charges</i>							
	<i>Units Consumed</i>							
	<i>Effective Unit Rate</i>							
	<i>Power Costs</i>							
	<i>Water Charges</i>							
	<i>Units Consumed</i>							
	<i>Effective Unit Rate</i>							
	<i>Water Costs</i>							
	<i>Other - Mention all the applicable heads</i>							
							
B	Department-wise Outsourcing Costs							
	<i>Airfield Services & Facilities</i>							
	<i>Terminals</i>							
	<i>Maintenance</i>							
	<i>Cleaning</i>							
							
1	Grand Total							
2	Utilities and Outsourcing expenses capitalised							
3	Net Utilities and Outsourcing expenses (1)-(2)							

* Projected values to be provided

Fields in italics are indicative only

^ Information for last financial year for which audited accounts are available

Form F11 (f) - Other Outflows (ref: Section A5.5.5)

S.N.	Particulars	Last available audited year #	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	....						
B	....						
C	....						
1	Grand Total							

* Projected values to be provided

Information for last financial year for which audited accounts are available

Form F11 (g): Current Assets & Liabilities (ref: Section A5.5.5)

Sl.No.	Particulars	Last available audited year#	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Current Assets, Loans and Advances							
	Sundry Debtors							
	Inventories							
	Cash and Bank Balances							
	Loans and Advances							
	Others							
	TOTAL OF 'A'							
B	Current Liabilities and Provisions							
I	Current Liabilities							
	Sundry creditors							
	Liabilities towards Suppliers							
							
II	Provisions							
							
	TOTAL OF 'B' (I+II)							
C	NET CURRENT ASSETS (= A - B)							

* Projected values to be provided

Information for last financial year for which audited accounts are available

Form F12 (a) - Historical and Projected Passenger Traffic (ref: Section A5.6)

Year	Domestic Passengers					International Passengers					Total passengers	Forecast error Correction band		
	Scheduled		Non-scheduled		Total	Scheduled		Non-scheduled		Total		Forecast error Correction band		
	Embarking	Disembarking	Embarking	Disembarking		Embarking	Disembarking	Embarking	Disembarking			% from central forecast	Upper bound	Lower bound
2003-04														
2004-05														
2005-06														
2006-07														
2007-08														
2008-09														
2009-10														
2010-2011														
2011-2012														
2012-2013														
2013-2014														
2014-2015														
2015-2016														
2016-2017														
2017-2018														
2018-2019														
2019-2020														

* The forecasted passengers numbers are the point estimates of scenarios presented in Form F12 (b)

* Forecast Error Correction band is the value of upper and lower bounds, which should be equal in percentage terms, proposed by the airport and to be used for determining forecast error correction and is applicable only to forecast numbers

Form F12 (b) - Forecasted Passenger Traffic (ref: Section A5.6)

Year	Domestic Passengers								
	Embarking			Disembarking			Total		
	Optimistic	Most Likely	Conservative	Optimistic	Most Likely	Conservative	Optimistic	Most Likely	Conservative
2010-2011									
2011-2012									
2012-2013									
2013-2014									
2014-2015									
2015-2016									
2016-2017									
2017-2018									
2018-2019									
2019-2020									

Year	International Passengers								
	Embarking			Disembarking			Total		
	Optimistic	Most Likely	Conservative	Optimistic	Most Likely	Conservative	Optimistic	Most Likely	Conservative
2010-2011									
2011-2012									
2012-2013									
2013-2014									
2014-2015									
2015-2016									
2016-2017									
2017-2018									
2018-2019									
2019-2020									

Form F12 (c)- Historical and Projected ATM Traffic (ref: Section A5.6)

Year	Domestic		International		Total	
	Scheduled	Non-scheduled	Scheduled	Non-scheduled	Scheduled	Non-scheduled
2003-04						
2004-05						
2005-06						
2006-07						
2007-08						
2008-09						
2009-10						
2010-2011						
2011-2012						
2012-2013						
2013-2014						
2014-2015						
2015-2016						
2016-2017						
2017-2018						
2018-2019						
2019-2020						

Form F12 (d)- Historical and Projected Cargo Volumes in tonnes (ref: Section A5.6)

Year	Domestic								International							
	Loaded				Unloaded				Loaded				Unloaded			
	<i>General</i>	<i>Perishable</i>	<i>Valuable</i>	<i>Other</i>	<i>General</i>	<i>Perishable</i>	<i>Valuable</i>	<i>Other</i>	<i>General</i>	<i>Perishable</i>	<i>Valuable</i>	<i>Other</i>	<i>General</i>	<i>Perishable</i>	<i>Valuable</i>	<i>Other</i>
2003-04																
2004-05																
2005-06																
2006-07																
2007-08																
2008-09																
2009-10																
2010-2011																
2011-2012																
2012-2013																
2013-2014																
2014-2015																
2015-2016																
2016-2017																
2017-2018																
2018-2019																
2019-2020																

Fields in italics are indicative only

* Applicable for forecasted years only

Form F12 (e) - Historical and Projected ATM Traffic by Aircraft Type and Aircraft Weight (ref: Section A5.6)																	
Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Aircraft Type																	
Type 1																	
Type 2																	
Type 3																	
Type 4																	
.....																	
Total																	
Aircraft Weight																	
Weight Category 1																	
Weight Category 2																	
Weight Category 3																	
.....																	
Total																	

Form F12 (f) - Historical and Projected Average Passenger per ATM (ref: Section A5.6)

Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Aircraft Type																	
Type 1																	
Type 2																	
Type 3																	
Type 4																	

Form F12 (g) - Historical and Projected fuel throughput in kilolitres (ref: Section A5.6)

Year	<i>Domestic Flights</i>	<i>International Flights</i>
2003-04		
2004-05		
2005-06		
2006-07		
2007-08		
2008-09		
2009-10		
2010-2011		
2011-2012		
2012-2013		
2013-2014		
2014-2015		
2015-2016		
2016-2017		
2017-2018		
2018-2019		
2019-2020		

Fields in italics are indicative only

* Applicable for forecasted years only

Form F13 (a) - Historical Tariff(s) and Revenues from Regulated Services (ref: Section A5.7)

S.N.	Particulars	2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10	
		Per Unit Tariff	Revenues	Per Unit Tariff	Revenues	Per Unit Tariff	Revenues	Per Unit Tariff	Revenues	Per Unit Tariff	Revenues	Per Unit Tariff	Revenues	Per Unit Tariff	Revenues
A	Revenues from Regulated Services														
1	<i>Tariff 1</i>														
2	<i>Tariff 2</i>														
3	<i>Tariff 3</i>														
4	....													
	Total Revenues														

Fields in italics are indicative only

Form F13 (b) - Historical and Projected revenues from services other than Regulated Services (ref: Section A5.7)

S.N.	Particulars							
		Last available audited year^	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Revenue from services other than Regulated Services							
1	<i>Revenues from</i>							
2	<i>Revenues from</i>							
3	<i>Revenues from</i>							
B	Other Revenues							
1	<i>Revenues from Interest Income</i>							
2	<i>Revenue from Any Other Sources (Please Specify)</i>							
	Total Revenues							

* Projected values to be provided

Fields in italics are indicative only

^ Information for last financial year for which audited accounts are available

Form F14 (a) - Information on Objective Performance Monitoring (ref: Section A5.8)

S.N.	Objective Parameter	Measure	Number and type of infrastructure or facility to be monitored through each parameter	Data sources	Data collection process/methodology	Time period of monitoring every month
1						
2						
3						
4						
5						
6						

Notes

- 1 The number and type of infrastructure of facility shall identify relevant individual items to be monitored through the parameter e.g. number of parking bays and number of Flight Information Display Systems.
- 2 Data collection source & methodology shall identify in detail the process through which data will be collected, manual or electronically, and the time period over which the monitoring will be done every month. For example, the monitoring of baggage delivery times shall specify the process through which start and end times for the activity will be captured.

Form F14 (b) - Information on Subjective Performance Monitoring (ref: Section A5.8)

Particulars	
Sample size of passengers to be surveyed and rationale for the selected sample size	
Details on the periodicity of conducting surveys and rationale for such periodicity	
Details of agency administering the survey and supporting evidence of competitive procurement	

Notes

1. Survey agency will have duty of care and the Authority will have the right to interact with the agency on aspects related to inspection and verification under the section 13 (4) of AERA Act.
2. The airport operator shall specify the survey methodology to be used, even if the standard ACI ASQ methodology is to be used.

Form F15 (a): Annual Tariff Proposal For Tariff Year t - Format for providing information on EMAY (ref: Section A5.9)

S.N.	Particulars	For Tariff Year t
1	Yield per passenger	
2	Error Correction term (from year t-2)	
3	Estimated Maximum Allowed Yield (EMAY)	

Form F15 (b): Annual Tariff Proposal For Tariff Year t - Format for providing information on Tariff (s) (ref: Section A5.9)

Tariff heading	Conditions of Tariff	Applicable Discount/ Surcharge	Estimated Units	Estimated Revenues
	e.g. Tariff per flight weight	e.g. Discount if paid within 15 days	e.g. Number of ATMs	Tariff * Estimated Units
<i>Tariff 1</i>				
<i>Tariff 2</i>				
<i>Tariff 3</i>				
.....				
Total			* Total units to reconcile traffic forecast	* Total estimated revenue consistent with Estimated Maximum Allowed Yield

* The Airport Operator must demonstrate that the Tariff (s) as proposed will ultimately result in a revenue equal to or less than ARR or EMAY, as the case may be

Fields in italics are indicative only

Form F16: Annual Compliance Statement (ref: Section A5.10)

S.N.	Particulars	Actuals for the Tariff Year under consideration
1	Yield per passenger	
	Actual WPI during the year	
2	Actual Maximum Allowed Yield per passenger	
	Security Operating Cost Correction term	
	Other Mandated Operating Cost Correction term	
	Statutory Cost Operating Correction term	
	Forecast Error Correction term	
	Recovery Error Correction term	
3	Actual Yield per passenger	
	Revenues subject to yield cap	
	Volumes	
4	Over recovery of allowed yield - Error correction	

	Actual for the Tariff Year under consideration	Forecast as per the Multi Year Tariff Order
Total Revenue from Regulated Services (1)		
Total Revenue from services other than Regulated Services (2)		
Operation & maintenance expenditure (3)		
Depreciation (4)		
Total Expenditure (3) + (4) = (5)		
Regulatory operating Profit (1) – (2) - (5) = (6)		
Capital expenditure (7)		
Opening RAB (8)		
Disposals/ Transfers (9)		
Closing RAB (8) + (7) – (9) = (10)		
Average RAB (8) + (10) / 2 = (11)		
Return on Average RAB (6) / (11)		
Total Volume (12)		
Actual yield per passenger (12/1)		

Form F18: Revenues from Regulated Services recovered during the Tariff Year (ref: Section A5.10.2)

	Actual for the Tariff Year under consideration	Forecast as per the Multi Year Tariff Order
<i>Revenues from Tariff #1</i>		
<i>Revenues from Tariff #2</i>		
<i>Revenues from Tariff #3</i>		
....		
Total Revenues from Tariff(s) for Regulated Services		

Fields in italics are indicative only

Form F19: Revenue from services other than Regulated Services recovered during the Tariff Year (ref: Section A5.10.2)

	Actual for the Tariff Year under consideration	Forecast as per the Multi Year Tariff Order
<i>Revenue from services other than Regulated Services heading #1</i>		
<i>Revenue from services other than Regulated Services heading #2</i>		
<i>Revenue from services other than Regulated Services heading #3</i>		
<i>Revenue from services other than Regulated Services not identified in the Multi Year Tariff Order</i>		
Total Revenues from services other than Regulated Services		

Fields in italics are indicative only

Form F20: Operation and Maintenance Expenditure incurred during the Tariff Year (ref: Section A5.10.2)

	Actual for the Tariff Year under consideration	Forecast as per the Multi Year Tariff Order
<i>Operation & maintenance expenditure heading #1</i>		
<i>Operation & maintenance expenditure heading #2</i>		
<i>Operation & maintenance expenditure heading #3</i>		
<i>Operation & maintenance expenditure not identified</i>		
Total Operation & maintenance expenditure		

Fields in italics are indicative only

S.N.	Particulars	Actual for the Tariff Year under consideration	Forecast as per the Multi Year Tariff Order
1	Revenue		
	<i>Revenues from Regulated Services</i>		
	<i>Revenues from services other than Regulated Services</i>		
2	Operation and maintenance expenditure		
	<i>Payroll Costs</i>		
	<i>Administrative and General Costs</i>		
	<i>Utilities and Outsourcing Costs</i>		
	<i>Concession Fees</i>		
	<i>Repair and Maintenance Costs</i>		
3	Profit before depreciation, interest and taxation (PBDIT)		
	Depreciation and Amortisation		
4	Profit before interest and taxation (PBIT)		
	Total interest and finance charges		
5	Profit / loss before tax		
	Provision for taxation		
6	Profit / loss after taxation		
7	Balance Carried to Balance Sheet		
	Adjustments to reconcile as per statutory accounts		
8	Operating profit as per statutory accounts		

Fields in italics are indicative only

Form F22: RAB Reconciliation Statement (ref: Section A5.10.2)

S.N.	Particulars	Actual for the Tariff Year under consideration
1	Net fixed assets as per the statutory accounts	
	<i>Difference between net fixed assets and RAB</i>	
	<i>Difference between depreciation in statutory accounts and allowed regulatory depreciation</i>	
	<i>Intercompany transfers</i>	
	<i>Revaluations in statutory accounts</i>	
	<i>Reconciliation adjustment #1</i>	
	<i>Reconciliation adjustment #2</i>	
	
2	Closing RAB	

Fields in italics are indicative only

Form F23 (a) - Format to provide quarterly quality of service performance report on Objective Parameters (ref: Section A5.11)

Quality of Service Parameter	Target Benchmark	Achieved Benchmark (Month 1)	Achieved Benchmark (Month 2)	Achieved Benchmark (Month 3)	Achieved Benchmark (Month 4)
Objective Parameters					
Parameter 1					
Parameter 2					
.....					

Form F23 (b) - Format to provide quarterly quality of service performance report on Subjective Parameters (ref: Section A5.11)

Quality of Service Parameter	Target Benchmark	Achieved Benchmark (Quarter 1)	Achieved Benchmark (Quarter 2)	Achieved Benchmark (Quarter 3)	Achieved Benchmark (Quarter 4)
Subjective Parameters					
Parameter 1					
Parameter 2					
.....					

Form F24 (a) - Format to summarize rebate incidences on objective parameter in quarterly quality of service performance report (ref: Section A5.11).

Quality of service Parameter	Rebate incidence per quarter on under-performance	Calculated rebate incidence (Month 1)	Calculated rebate incidence (Month 2)	Calculated rebate incidence (Month 3)
Objective Parameters				
Parameter 1				
Parameter 2				
.....				
Total		*To be calculated as per the guideline and formulae provided in the tariff order	*To be calculated as per the guideline and formulae provided in the tariff order	*To be calculated as per the guideline and formulae provided in the tariff order

Form F24 (b) – Format to summarize rebate incidences on subjective parameter in quarterly quality of service performance report (ref: Section A5.11)

Quality of service Parameter	Rebate incidence per quarter on under-performance	Calculated rebate incidence (Quarter 1)	Calculated rebate incidence (Quarter 2)	Calculated rebate incidence (Quarter 3)
Subjective Parameters				
Parameter 1				
Parameter 2				
.....				
Total		*To be calculated as per the guideline and formulae provided in the tariff order	*To be calculated as per the guideline and formulae provided in the tariff order	*To be calculated as per the guideline and formulae provided in the tariff order