

Airports Economic Regulatory Authority of India

**Airports Economic Regulatory Authority of India
(Terms and Conditions for Determination of Tariff for
Services Provided for Cargo Facility, Ground Handling
and Supply of Fuel to the Aircraft) Guidelines, 2011**



सत्यमेव जयते

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

भा.वि.आ.वि.प्रा.
AERA

Dated : 10th January, 2011



Airports Economic Regulatory Authority Of India

AERA Building,
Administrative Complex,
Safdarjung Airport,
New Delhi -110 003

Dated the 10th January, 2011

Direction under Section 15 of The Airports Economic Regulatory Authority of India Act, 2008- "Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Services Provided for Cargo Facility, Ground Handling and Supply of Fuel to the Aircraft) Guidelines 2011"

No.AERA/20019/CGF-G/2010-11/Vol-II -----Whereas "services provided 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", 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 Service Provider(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 Service Provider(s) of 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 Services Provided for Cargo Facility, Ground Handling and Supply of Fuel to the Aircraft) Guidelines, 2011 ("Guidelines").

1.2. These Guidelines shall apply to Service Provider(s) for (i) the cargo facility at a major airport; (ii) ground handling relating to aircraft, passengers and cargo at a major airport; and for (iii) supplying fuel to the aircraft at a major airport:



Provided that Airport Operator providing the Regulated Service(s) as defined herein shall be excluded from the application of these Guidelines.

- 1.3. These Guidelines shall come into force on such date as the Authority may by order appoint.

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 Unit** means the actual yield per unit allowed to be recovered in a Tariff Year, calculated according to Clause 10.12, where applicable;
- 2.4. **Airport Operator** means the licensee of a 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 expenditure, forecast depreciation, forecast taxation and forecast revenue from services other than Regulated Services, calculated according to Clause 8;
- 2.6. **Annual Compliance Statement** means an annual statement submitted by the Service Provider(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 Unit, where applicable;
- 2.8. **Annual Tariff Proposal** means an annual proposal submitted by the Service Provider(s) for consideration by the Authority, in accordance with Clause 10.8 or Chapter V as specified by the Authority;
- 2.9. **Appendix** means Appendix to these Guidelines;
- 2.10. **Authority** means the Airports Economic Regulatory Authority of India;
- 2.11. **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

- 2.12. **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.
- 2.13. **Clause(s)** means the Clause(s) of these Guidelines;
- 2.14. **Control Period** means a period of five Tariff Years, during which the Multi Year Tariff Order and Tariff(s) determined by the Authority pursuant to such Order shall subsist. Provided that the first Control Period shall commence from 1st April 2011;
- 2.15. **Estimated Maximum Allowed Yield per Unit** means the estimated yield per unit allowed to be recovered in the Tariff Year, calculated according to Clause 10.9 where applicable;
- 2.16. **Form(s)** shall mean the form(s) listed in the Schedule to these Guidelines;
- 2.17. **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 where applicable as described in Chapter III;
- 2.18. **Multi Year Tariff Order** means such order as may be made by the Authority specifying the materiality assessment, the competition assessment, the assessment of reasonableness of existing User Agreement(s), and the Aggregate Revenue Requirement and yield per unit where applicable;
- 2.19. **Multi Year Tariff Proposal** means a proposal by the Service Provider(s) to the Authority before the start of a Control Period for determination of tariffs either pursuant to determination of Aggregate Revenue Requirement and Yield per Unit for a given Control Period where applicable, or pursuant to specification of a light touch approach to fixing tariffs where applicable, including evidence submitted required for the assessment of materiality, competition and reasonableness of User Agreement(s), in accordance with Section AI.2;
- 2.20. **Regulated Service(s)** for the purpose of these Guidelines mean any service(s) provided 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;

- 2.21. **Regulatory Building Blocks** means components required for determining the Aggregate Revenue Requirement for a Tariff Year of the relevant Control Period as enumerated in Clause 9;
- 2.22. **Section(s)** mean the section(s) of the Appendices attached to these Guidelines;
- 2.23. **Service Provider(s)** means any person, other than Airport Operator, who provides one or more Regulated Services;
- 2.24. **Tariff(s)** means such tariff(s) as approved by the Authority for levy by a Service Provider 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. **Unit(s)** means such unit used as a divisor for calculating the yield per unit. In case of service provided for (i) ground handling services relating to aircraft, passengers and cargo at an airport, the unit shall be aircraft movement; (ii) the cargo facility at an airport, the unit shall be metric tonne (MT); and (iii) supplying fuel to the aircraft at an airport, the unit shall be kilolitre;
- 2.27. **User(s)** means any person availing the services provided for cargo facilities or for ground handling relating to aircraft, passengers and cargo or for supplying fuel to aircrafts, as the case may be.
- 2.28. **User Agreement** means any agreement entered into between a Service Provider and the User of the Regulated Service(s).
- 2.29. Words and expressions used but not defined in these Guidelines shall have the same meaning respectively assigned to them under the Act.

2.30. **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. Approach to Assessment of Materiality, Competition and Reasonableness of User Agreements

3.1. The Authority shall follow a three stage procedure for determining its approach to the regulation of Regulated Service(s) as under:

Stage 1: The Authority shall first assess 'materiality' according to provisions of Clause 4;

Stage 2: The Authority shall then assess 'competition' according to provisions of Clause 5;

Stage 3: The Authority shall then assess the reasonableness of existing User Agreement(s), according to provisions of Clause 6.

3.2. Based on the Authority's review at stage 1, stage 2 and stage 3 where the Regulated Service(s) provided are deemed:

(i) 'not material', the Authority shall determine Tariff(s) for Service Provider(s) based on a light touch approach for the duration of the Control Period, according to the provisions of Chapter V;

(ii) 'material but competitive', the Authority shall determine Tariff(s) for Service Provider(s) based on a light touch approach for the duration of the Control Period, according to the provisions of Chapter V;

(iii) 'material and not competitive' but where the Authority is assured of the reasonableness of the existing User Agreement(s), the Authority shall determine Tariff(s) for Service Provider(s) based on a light touch approach for the duration of the Control Period, according to the provisions of Chapter V;

(iv) 'material and not competitive' and where the Authority is not assured of the reasonableness of the existing User Agreement(s), the Authority shall determine Tariff(s) based on price cap approach for the duration of the Control Period. In such cases, the Authority shall determine the Aggregate Revenue Requirement according to Chapter III and determine Tariff(s) according to the provisions of Chapter IV.

3.3. The Authority shall assess materiality, competition, and reasonableness of the User Agreement(s) prior to the commencement of a Control Period.

3.4. Notwithstanding anything contained in Clause 3.3 above, the Authority reserves the right to review materiality assessments, competition assessments and the reasonableness of the User Agreements within the Control Period and issue such directions or make such orders as it may consider necessary.

3.5. In the event that a new Service Provider(s) starts providing Regulated Service(s) at a major airport, the Authority shall determine the Tariff(s) for such Service Provider(s) subject to Clause 7.1 of these Guidelines, in accordance with its approach to the regulation of Regulated Service(s) at that major airport and, the Control Period for such Service Provider(s) shall commence from the date as determined by the Authority.



- 3.6. In the event that one or more of existing Service Provider(s) ceases to provide Regulated Service(s) at a major airport, the remaining Service Provider(s) of Regulated Service(s) shall continue to be regulated as determined prior to the commencement of the Control Period(s).

4. Materiality Assessment

- 4.1. The Authority shall determine the materiality index with respect to services provided for cargo facility at a major airport, and ground handling services at a major airport based on information to be obtained from the Airports Authority of India (AAI) or any other source it may deem fit. For determining the materiality index with respect to services provided for supplying fuel to aircraft at a major airport, the Authority shall obtain information from the respective major airports and such information shall be, subject to review if any by the Authority, relied upon for materiality assessment of such services.
- 4.2. Service provided for supplying fuel to the aircraft at a major airport¹

- (i) The materiality index for service provided for supplying fuel to the aircraft at a major airport A shall be defined as:

$$\text{Materiality Index (MI}_F) = \frac{\text{Fuel Throughput in Kilolitres at a major airport A}}{\text{Total Fuel Throughput in Kilolitres at Major Airports}} \times 100$$

Where 'Fuel Throughput in Kilolitres' represents the actual fuel off take in kilolitres per annum at the major airport A.

Where 'Total Fuel Throughput in Kilolitres' represents the sum total of actual fuel off take in kilolitres per annum at all Major Airports.

- (ii) Where the MI_F as calculated above is 5% or more at a major airport, the service provided for supplying fuel to the aircraft at major airport A shall be deemed 'material'. If MI_F is below 5%, then the service provided for supplying fuel to the aircraft at major airport A shall be deemed 'not material'.

- 4.3. Service provided for the cargo facility at an airport²

- (i) The materiality index for service provided for cargo facility at major airport A shall be defined as:

$$\text{Materiality Index (MI}_C) = \frac{\text{Cargo Volume at major airport A}}{\text{Total Cargo Volume at Major Airports}} \times 100$$

Where 'Cargo Volume' represents the total cargo volume in MT per annum handled at major airport A.

¹ Reference Appendix II: Explanation for materiality assessment

² Reference Appendix II: Explanation for materiality assessment



Where 'Total Cargo Volume at Major Airports' represents the sum total cargo volume in MT per annum, handled at all major airports.

- (ii) Where the MI_C , as calculated above is 2.5% or more at a major airport, the service provided for cargo facility at major airport A shall be deemed 'material'. If MI_C is below 2.5%, then service provided for cargo facility at major airport A shall be deemed 'not material'.

4.4. Services provided for ground handling services³

- (i) The materiality index for services provided for ground handling at major airport A shall be defined as:

$$\text{Materiality Index (MI}_G\text{)} = \frac{\text{International Aircraft Movements at major airport A}}{\text{Total International Aircraft Movements at Major Airports}} \times 100$$

Where 'International Aircraft Movements' represent the total number of international aircraft movements per annum at major airport A.

Where 'Total International Aircraft Movements at Major Airports' represents the sum total international aircraft movements per annum at all major airports.

- (ii) Where the MI_G as calculated above is 5% or more at a major airport, the services provided for ground handling at major airport A shall be deemed 'material'. If MI_G is below 5%, then services provided for ground handling at major airport A shall be deemed 'not material'.

5. Competition Assessment

- 5.1. Where a Regulated Service is being provided at a major airport by two or more Service Provider(s), it shall be deemed 'competitive' at that airport. If a Regulated Service is provided by less than two Service Provider(s), it shall be deemed 'not competitive':

Provided that the Authority may in its discretion consider such other additional evidence regarding reasonableness of competition, as it may deem fit.

Explanation: For avoidance of any doubt, the determination of number of Service Provider(s) at a major airport shall include the Airport Operator, if the Airport Operator is also providing Regulated Service(s) at that major airport.

6. Reasonableness of User Agreement(s)

- 6.1. The Authority shall consider the existing User Agreement(s) as reasonable provided that:

- 6.1.1. The Service Provider submits existing User Agreement(s) between the Service Provider and all the User(s) of the Regulated Service(s), clearly

³ Reference Appendix II: Explanation for materiality assessment



indicating the tariff(s) that are agreed to between the Service Provider and the User(s) of the Regulated Service(s), and

- 6.1.2. The User(s) of the Regulated Service(s) have not raised any reasonable objections or concerns in regard to the existing User Agreement(s), which have not been appropriately addressed.

Provided that the Authority may in its discretion consider such other additional evidence regarding reasonableness of User Agreement(s), as it may deem fit.



सत्यमेव जयते

भा.वि.आ.वि.प्रा.
AERA



7. Procedure for submission and review of Tariff Proposals

- 7.1. All Service Provider(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 AI.2 of Appendix 1 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 that a new Service Provider(s) is granted permission for providing Regulated Service(s) at a major airport, the Service Provider(s) shall, within two months of the date of grant of such permission, submit to the Authority for its consideration, a Multi Year Tariff Proposal in accordance with these Guidelines.

- 7.2. The Authority shall put in the public domain for stakeholder consultations, inter alia the following information received from the Service Provider(s) as part of their Multi Year Tariff Proposal(s):

7.2.1. Materiality Assessment of Regulated Service(s) at the major airport;

7.2.2. Competition Assessment at the major airport;

7.2.3. User Agreement(s) between the Service Provider(s) and the User(s) of the Regulated Service(s).

Provided that the Authority shall consider specific submission(s) from Service Provider(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) on competition assessment and reasonableness of User Agreements and decide as it may deem appropriate.

- 7.3. 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.

- 7.4. After issuance of the Multi Year Tariff Order, the Service Provider 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 75 days of the issue of the Multi Year Tariff Order.

- 7.5. Subject to Clause 7.7, 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.



- 7.6. The Authority shall after due consideration of the Annual Tariff Proposal make an Annual Tariff Order for a Tariff Year.
- 7.7. All Service Provider(s) shall submit an Annual Compliance Statement, within one month from the date on which the audited information for a Tariff Year becomes available, or within 6 months of the close of the relevant financial year, whichever is earlier.
- 7.8. 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 Service Provider(s) to submit, the Authority may grant to the said Service Provider(s) such extension of time, as deemed appropriate, on such terms and conditions as may be specified in the order.
- 7.9. In the event that the Service Provider(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 Service Provider(s) to submit within the specified period, or extension thereto, if any, the Authority may make such order as it deems appropriate.



सत्यमेव जयते

भा.वि.आ.वि.प्रा.
AERA



8. Procedure for determination of Aggregate Revenue Requirement for Regulated Service(s) deemed 'material and not competitive' and where the Authority is not assured of the reasonableness of the existing User Agreement(s)

- 8.1. 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) where applicable.
- 8.2. For Regulated Service(s) deemed 'material and not competitive' and where the Authority is not assured of the reasonableness of the existing User Agreement(s), the Authority shall calculate the Aggregate Revenue Requirement (ARR) for a given Control Period based on determination of the following Regulatory Building Block components:
- 8.2.1. Fair Rate of Return applied to the Regulatory Asset Base (FRoR x RAB)
- 8.2.2. Operation and Maintenance Expenditure (O)
- 8.2.3. Depreciation (D)
- 8.2.4. Taxation (T)
- 8.2.5. Revenues from services other than Regulated Service(s) (NAR)
- 8.3. 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.

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
RAB for calculating ARR	RAB	1,661	1,757	1,469	1,525	1,649
Fair Rate of Return applied to the RAB	FRoR	16%	16%	16%	16%	16%
	RAB x FRoR	266	281	235	244	264
Depreciation	D	192	249	226	242	191



Operation and Maintenance Expenditure	O	2,000	2,200	2,400	2,550	2,800
Tax Revenues from services other than Regulated Services	T NAR	40	31	269	432	606
Aggregate Revenue Requirement	$ARR_i = RAB_i \times FRoR + O_i + D_i + T_i - NAR_i$	ARR ₁ 2,419	ARR ₂ 2,732	ARR ₃ 3,055	ARR ₄ 3,373	ARR ₅ 3,807

- The numbers in this illustration are on nominal⁴ basis.
- RAB for calculating ARR is determined as illustrated in Clause 9.2.
- FRoR for calculating ARR is determined as illustrated in Clause 9.1.
- D for calculating ARR is determined as illustrated in Clause 9.3.

9. Regulatory Building Blocks

9.1. Fair Rate of Return (FRoR)

9.1.1. 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 a Service Provider 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

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

9.1.3. Cost of Equity

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

⁴ Means inflation adjusted

9.1.4. 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 consider, in respect to the cost of debt, interest free or concessional loan arrangements, if any.
- (d) The Authority shall determine a weighted average cost of debt, according to the formula indicated in the Illustration 2 below Clause 9.1.7, in a Control Period for the purpose of determination of FRoR. The determination of such weighted average cost of debt shall have reference to projected quantum of debt submitted by the Service Provider. The calculation of such weighted average cost of debt shall be based on the forecast quantum of debt for each Tariff Year in a Control Period.

9.1.5. The Authority shall not consider financing costs of any short term debt, with maturity of less than 12 months, in its determination of weighted average cost of debt. The Authority shall instead review such costs according to Clause 9.4.

9.1.6. 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.

9.1.7. Gearing

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 Service Provider. 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.

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



Fair rate of Return

	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Debt (D)	2,000	2,700	2,700	2,700	2,900
Equity (E)	1,500	1,500	1,500	3,000	3,000
Debt+Equity (C)	3,500	4,200	4,200	5,700	5,900
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%	63.4%	47.4%	49.2%
Weighted Average Gearing (WG)	55.3%				
Weighted Average Cost of Debt (Rd)	14.3%				
Cost of Equity (Re)	18.0%				
Fair Rate of Return	16.0% $FRoR = WG \times Rd + (1-WG) \times Re$				

- 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:

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

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 the determination of FRoR is arrived at using the following formula:

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

where

$t = 1$ to 5 denotes each Tariff Year

9.2. Regulatory Asset Base (RAB)

9.2.1. Scope of the RAB

- The relevant RAB assets shall be all fixed assets proposed by the Service Provider(s), after providing for such exclusions therefrom or inclusions therein as may be determined by the Authority.
- The assets that substantially provide services not related to or not normally provided as part of Regulated Service(s) may be excluded from the scope of RAB by the Authority, in its discretion.



- (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) 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 Service Provider and if for any reason the Service Provider 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 whatsoever shall be allowed for the same.
- (f) 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 Service Provider, 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 o(b) below.

- (g) 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.

9.2.2. The RAB shall represent the value of net investments, according to Clause 9.2.1 and 9.2.6, made by the Service Provider.

9.2.3. 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:

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



9.2.4. 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 Service Provider, subject to Clause 9.2.1.
- (b) The value of the initial RAB shall be calculated as under:

$$\begin{aligned} \text{Initial RAB} &= \text{Original Cost of Fixed Assets} \\ &\quad - \text{Accumulated Depreciation} \\ &\quad - \text{Accumulated Capital Receipts of the nature of contributions from stakeholders} \end{aligned}$$

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.

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 capital grants and subsidies.



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 (CR)	Depreciation rate (DR = 1/EL)	Years in Operation (Y)	Accumulated Depreciation AD = (OC - CR) x 0.9 x DR x Y
Asset 1	25	1,250	-	4.00%	5	225
Asset 2	10	2,000	1,000	10.00%	5	450
	Total	3,250	1,000			675

Initial RAB Valuation

Original Cost of fixed assets	3,250	OC
Accumulated depreciation	675	AD
Capital receipt	1,000	CR
Initial RAB	1,575	IR=OC-AD-CR

- The example illustrates that the data from fixed asset register of year 2009-10 as submitted by the Service Provider 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 receipts have not been considered for the purpose of calculation of depreciation.

9.2.5. 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 9.2.3.
- (b) 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 0 shall be used for determining such forecasted RAB.



Explanation: In case 2011-12 is the first Tariff Year of the first Control Period (i.e. 2011-12 to 2015-16), RAB_{t-1} (i.e. $RAB_{2010-11}$) for the first Tariff Year (i.e. 2011-12) is equal to the forecasted RAB at the end of the financial year 2010-11.

- (c) For subsequent Control Periods, the RAB_{t-1} for the first Tariff Year shall be forecasted RAB at the end of the last Tariff Year of the last Control Period.
- (d) 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	1,575	1,440	1,881	1,632	1,306	1,745
Commissioned Assets	CA	-	633	-	-	681	-
Depreciation	DR	135	192	249	226	242	191
Disposals	DI	-	-	-	100	-	-
Incentive Adjustments	IA	-	-	-	-	-	-
Closing RAB_t	$CR=OR+CA-DR-DI+IA$	1,440	1,881	1,632	1,306	1,745	1,554
RAB for calculating ARR	$RA=(OR+CR)/2$		1,661	1,757	1,469	1,525	1,649

- The example illustrates that the 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 0 is used as the opening RAB for 2010-11.
- The example also illustrates that RAB, for a Tariff Year t , for the calculation of ARR, 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 9.2.3.



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.

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	1,250	25	4.00%	45	45	45	23	-	-
Asset 2	2,000	10	10.00%	90	90	90	90	90	
Asset 3	633	5	20.00%	-	57	114	114	114	114
Asset 4	681	8	12.50%	-	-	-	-	38	77
			Total	135	192	249	226	242	191

- 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) and depreciation related to assets disposed during a Control period (Asset 1) is calculated pro-rata assuming the commissioning or disposal at half way through the Tariff Year.

9.2.6. 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.
- For each Tariff Year t , the RAB at the end of the Tariff Year shall be calculated as:

$$\begin{aligned}
 RAB_t &= RAB_{t-1} \\
 &+ \text{Commissioned Assets} \\
 &- \text{Depreciation} \\
 &- \text{Disposals} \\
 &+ \text{Incentive Adjustments}
 \end{aligned}$$



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 9.2.7 herein below.

Depreciation: Represents the amounts for depreciation as described in Clause 9.3 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 wanted 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	1575	1440	1798	1599	1373	1781
Commissioned Assets	CA	0	550	50	0	650	0
Depreciation	DR	135	192	249	226	242	191
Disposals	DI	-	-	-	80	-	-
Incentive Adjustments	IA	-	-	-	-	-	-
Closing RAB_t	CR=OR+CA- DR-DI+IA	1440	1798	1599	1373	1781	1590

- 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 0 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. 1590) of Tariff Year 5 of the first Control Period.

9.2.7. 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:

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

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

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

Where R_d is the cost of debt determined by the Authority according to Clause 9.1.4.

CR 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.

		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	$FA = R_d \times (OW + (CE - CA - CR)/2)$	-	-	37	80	43	-
Capital Receipts	CR	-	200	-	-	-	-
Commissioned Assets	CA	-	633	-	-	681	-
Closing WIP: WIP_t	$CW = OW + CE + FA - CR - CA$	-	-	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 9.1.4.
- The example illustrates that the assets acquired or commissioned within the same Tariff Year 1, has 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.

9.3. Depreciation (D)

- 9.3.1. Depreciation shall be allowed for in calculating Aggregate Revenue Requirement on a forecast basis for each Tariff Year in a Control Period, 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:
- 9.3.2. Provided that depreciation on capital receipts of the nature of contributions from stakeholders, if any, shall not be considered.
- 9.3.3. 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.



- 9.3.4. The 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.
- 9.3.5. Land is not a depreciable asset and its cost shall be excluded from the original cost while computing the depreciable value of the asset.
- 9.3.6. 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 9.2.6.
- 9.4. Operation and Maintenance Expenditure (O)
- 9.4.1. The operation and maintenance expenditure shall include all expenditures incurred by the Service provider(s) including expenditure incurred on security operating costs, other mandated operating costs and statutory operating costs as defined in Clause 9.4.2.
- 9.4.2. The assessment of operation and maintenance expenditure by the Authority shall include a review of the forecast of such expenditure as submitted by the Service Provider based on the following principles:
- (a) Assessment of baseline operation and maintenance expenditure based on review of actual expenditure indicated in the 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 security operating costs, other mandated operating costs or statutory operating costs, where (i) security operating costs are costs incurred in compliance of directions received from Bureau of Civil Aviation Security or Central Government, as the case may be; (ii) other mandated operating costs are costs incurred in compliance of directions received from other regulatory agencies including Director General Civil Aviation; and (iii) statutory operating costs are costs incurred on account of fees, levies, taxes and other such charges, directly imposed on and paid for by the Service Provider.
- 9.4.3. 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 Service Provider 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 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.

- 9.4.4. The Authority may consider any payments made by the Service Provider(s) to the Airport Operator(s) with reference to the accounting treatment given to such payments by the Service Provider(s) and as reviewed by the Authority.

9.5. Taxation (T)

9.5.1. Taxation represents payments by the Service Provider in respect of corporate tax on income from assets and services taken into consideration for determination of Aggregate Revenue Requirement.

9.5.2. 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.

9.6. Revenues from services other than Regulated Service(s) (NAR)

The Authority's review of forecast of revenues from services other than Regulated Service(s) may include scrutiny of bottom-up projections of such revenues prepared by the Service Provider, benchmarking of revenue levels, commissioning experts to consider where opportunities for such revenues are under-exploited, together with the review of other forecasts for operating costs and traffic and capital investment plans that have implications for such activities.



10. Procedure for determination of Tariff(s) for Regulated Service(s) deemed 'material and not competitive' and where the Authority is not assured of the reasonableness of the existing User Agreement(s)

10.1. The Authority shall determine Aggregate Revenue Requirement where applicable as specified in Clause 8.3 and the Yield per Unit (Y) to be specified in the Multi Year Tariff Order for the Control Period as specified herein below.

10.2. Yield per Unit (Y)

10.2.1. The Authority shall determine the Yield per Unit (Y) for the Control Period using the following formula:

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

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 9.1;

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.

10.2.2. With reference to Clause 10.4, the Authority shall determine X for each Tariff Year and Y_1 such that Yield per Unit (Y) as determined in Clause 10.2 is equal to:

$$\text{Yield per Unit (Y)} = \frac{\sum_{t=1}^5 PV(VE_t \times Y_t)}{\sum_{t=1}^5 (VE_t)}$$

Where:

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

Y_t is the Yield per Unit for Tariff Year t calculated according to Clause 10.4;

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 9.1.

10.3. As part of Multi Year Tariff Proposal, the Service Provider 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.



- 10.4. The Authority shall review the forecast of changes in WPI as submitted by the Service Provider and shall determine the Yield per Unit for the second Tariff Year onwards using the following formula:

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

Where:

Y_t is the Yield per Unit for the Tariff Year t ;

Y_{t-1} is the Yield per Unit 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 10.5);

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 Unit (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.

- 10.5. The Authority shall set the value of Yield per Unit 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 Unit (Y) as determined in Clause 10.2; (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_t , is to simulate a competitive environment in a non-competitive situation by allowing Service Provider 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 Service Provider 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 unit, 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 Unit(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 Unit has been rounded to two decimal places.

		Yield per Unit (Y)				
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Aggregate Revenue Requirement	ARR	2,419	2,732	3,055	3,373	3,807
Estimated Volume	VE	1000	1150	1323	1521	1749
Present Value (ARR)	PV (ARR)	2,419	2,355	2,271	2,161	2,103
$\Sigma PV(ARR)$	11,308					
ΣVE	6,743					
$Y = \Sigma PV(ARR) / \Sigma VE$	1.68					

		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 Unit for Tariff Year t	Y_t	1.96	2.12	2.29	2.47	2.67
Revenue = VE x Y	$VE \times Y$	1,964	2,439	3,030	3,762	4,672
Present Value (VE x Y)	PV (VE x Y)	1,964	2,102	2,252	2,410	2,580
$\Sigma PV(VE \times Y)$	11,308					
ΣVE	6,743					
$Y = \Sigma PV(VE \times Y) / \Sigma VE$	1.68					

- Y_1 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 Unit for the second Tariff Year onwards (i.e. Y_2 to Y_5) is calculated according to Clause 10.4.
- The discounting rate for calculating PV is equal to the Fair Rate of Return determined by the Authority according to Clause 9.1. In this illustration, 16% from illustration 2 has been used.

10.6. 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 Service Provider to the Authority according to Clause 10.8



and Clause 10.11, respectively and, such other information as the Authority may consider necessary.

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

10.7.1. With respect to Annual Tariff Proposal, according to Clause 10.8;

10.7.2. With respect to Annual Compliance Statement, according to Clause 10.11.

10.8. Annual Tariff Proposal

10.8.1. Prior to the start of each Tariff Year, the Service Provider(s) shall submit, for approval by the Authority, an Annual Tariff Proposal. The proposal shall contain calculation, according to Clause 10.9, of Estimated Maximum Allowed Yield per Unit (EMAY), to be recovered during the Tariff Year and a detailed break-up of the Tariff(s) from which it proposes to recover the EMAY.

10.8.2. The Annual Tariff Proposal shall be submitted in the form and manner provided in Section A1.8 of Appendix I.

10.8.3. 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 Service Provider(s).

10.9. Estimated Maximum Allowed Yield per Unit

The Service Provider(s) shall calculate the Estimated Maximum Allowed Yield per Unit $EMAY_t$ for each Tariff Year t using the following formula:

$$EMAY_t = Y_t + K_t$$

Where,

Y_t is the Yield per Unit, calculated according to Clause 10.4;

K_t is the recovery error correction factor, calculated according to Clause 10.10.

10.10. Recovery Error Correction Factor

10.10.1. The recovery error correction factor is, an adjustment to the Estimated Maximum Allowed Yield per Unit, calculated using the error correction term of Tariff Year $t-2$ and the compounding factor, according to the formula in Clause 10.10.2. The error correction term shall be calculated according to Clause 10.20 and indicates the quantum of over-recovery or under-recovery due to increase or decrease respectively of Actual Yield per Unit with respect to Actual Maximum Allowed Yield per Unit in the Tariff Year.

10.10.2. The recovery error correction factor (K_t), as indicated in the formula in Clause 10.9, shall be calculated as under:

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



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 10.20.

$E_{t-2} = 0$ 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 Unit 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 9.1.

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

- (i) over-recovery with respect to the Actual Maximum Allowed Yield per Unit in any one Tariff Year automatically results in an appropriate reduction in the Estimated Maximum Allowed Yield per Unit for a subsequent Tariff Year, and
- (ii) adjustments are given for under-recovery in any one Tariff Year on account of following factors
 - (a) forecast error correction according to Clause 10.14;
 - (b) security operating costs correction according to Clause 10.15;
 - (c) other mandated operating costs correction according to Clause 10.16;
 - (d) statutory operating costs correction according to Clause 10.17; and
 - (e) recovery error correction factor, calculated using error correction term of Tariff Year t-2, according to Clause 10.18.

Such adjustments, subject to a cap of AMAY shall automatically result in an appropriate increase in the Estimated Maximum Allowed Yield per Unit for a subsequent Tariff Year.

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



Estimated Maximum Allowed Yield per Unit

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per Unit for Tariff Year t	Y	1.96	2.12	2.29	2.47	2.67
Error correction term for Tariff Year t-2	E_{t-2}	-	-	(246.14)	41.07	(274.90)
Compounding Factor	$r = FRoR$	16.0%	16.0%	16.0%	16.0%	16.0%
$E_{t-2} \times (1+r)^2$	A	-	-	(331.20)	55.27	(369.91)
Estimated Volume	VE	1,000	1,150	1,323	1,521	1,749
Recovery Error Correction Factor	$K=a/VE$	-	-	(0.25)	0.04	(0.21)
Estimated Maximum Allowed Yield per Unit	$EMAY_t = Y+K$	1.96	2.12	2.04	2.51	2.46

- Yield per Unit for the purpose of calculating Estimated Maximum Allowed Yield per Unit shall be determined by the Authority in the Multi Year Tariff Order. The calculation of the Yield per Unit is given in illustration 8.
- Compounding factor, r, for error correction term shall be equal to the FRoR as calculated in Clause 9.1.
- Error correction term for Tariff Year t-2, calculated in Clause 10.20, is used for calculating EMAY for Tariff Year t.
- The Tariff(s) proposed for the Tariff Year shall be consistent with Estimated Maximum Allowed Yield per Unit.

10.11. Annual Compliance Statement

10.11.1. The primary purpose of annual compliance statement shall be to calculate the Actual Maximum Allowed Yield per Unit 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 Unit and Tariff(s) applicable for a subsequent Tariff Year, as may be required.

10.11.2. The Service Provider(s) shall submit the annual compliance statement, in the form and manner provided in Section AI.9 of Appendix I, to the Authority. In addition, the Service Provider(s) shall submit copies of annual audited statutory accounts and any other information, audited or otherwise, which the Authority may from time to time specify.

10.11.3. The Annual Compliance Statement shall be submitted by a Service Provider in respect of the actuals based on its annual statutory audited accounts for a particular Tariff Year and shall clearly indicate the calculation of the following:

- (a) Yield per Unit Y_t , calculated for actual WPI in the Tariff Year according to Clause 10.13;

- (b) Forecast error correction term F_t , calculated according to Clause 10.14;
- (c) Security operating cost correction term S_t for the Tariff Year t , calculated according to Clause 10.15;
- (d) Other mandated operating cost correction term OM_t for the Tariff Year t , calculated according to Clause 10.16;
- (e) Statutory operating costs correction term U_t for the Tariff Year t , calculated according to Clause 10.17;
- (f) Recovery error correction factor K_t calculated according to Clause 10.18.

10.11.4. The Annual Compliance Statement shall also provide details of the Actual Maximum Allowed Yield per Unit (AMAY) calculated according to Clause 10.12, Actual Yield per Unit (AY) calculated according to Clause 10.19 and the error correction term (E) calculated according to Clause 10.20.

सत्यमेव जयते

10.12. Actual Maximum Allowed Yield per Unit

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

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

$$AMAY_t = Y_t \times (1 + F_t) + S_t + OM_t + U_t + K_t$$

Where in respect of Tariff Year t :

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

Y_t is the Yield per Unit, calculated according to Clause 10.13, for the Tariff Year t at the end of such year;

F_t is the forecast error correction term calculated according to Clause 10.14;

S_t is the security operating cost correction term calculated according to Clause 10.15;

OM_t is the other mandated operating cost correction term calculated according to Clause 10.16;

U_t is the statutory operating cost correction term calculated according to Clause 10.17;



K_t is the recovery error correction factor calculated according to Clause 10.18.

10.13. Yield per Unit (Y) (with actual WPI at the end of the Tariff Year)

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

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

Where:

Y_t is the Yield per Unit for the Tariff Year t;

Y_{t-1} is the Yield per Unit 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 10.5) 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 Unit (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 Unit 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 Unit with actual change in WPI

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per Unit for Tariff Year t		1.96	2.12	2.29	2.47	2.67
Change in WPI for Tariff Year t	E_{t-2}	-	-	0.01	-	(0.02)
Yield per Unit for Tariff Year t after actual change in WPI	Y	1.96	2.12	2.30	2.47	2.65

10.14. Forecast Error Correction Term

10.14.1. The forecast error correction term is an adjustment, to the Yield per Unit 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.

10.14.2. Under the above mentioned forecast error correction approach, if the 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 the variation shall be shared between User(s) and the Service Provider(s).

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

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

If $V_t \geq VH_t$

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

If $V_t < VL_t$

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

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

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

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 Unit according to Clause 10.19.

VE_t is the estimated volume used to determine the Yield per Unit 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 11: 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.

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Actual volume	V	990	990	1300	1700	1400
Estimated Volume	VE	1000	1150	1323	1521	1749
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	-	-	-	(0.018)	0.000
Lower band correction term	FL	-	0.039	-	0.000	0.100
Forecast Error Correction	$F = 0.5 \times FL_i$ or $F = 0.5 \times FH_i$	-	0.02	-	-	0.05
		-	-	-	(0.01)	-

- *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 10.14.3.*

10.15. Security Operating Cost Correction Term

10.15.1. The security operating cost correction term ensures the correction for any changes in security operating costs by making adjustments to the Actual Maximum Allowed Yield per Unit. Such security operating costs shall cover mandated costs incurred due to the directions issued by BCAS or Central Government, as the case may be. Any additional mandated capital expenditure incurred by the Service Provider towards security shall not be considered for correction within the Control Period.

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

10.15.3. The adjustment shall be made through the term S_t in the formula in Clause 10.12.2. and shall be calculated as under:



$$S_t = \frac{SC_t - SE_t}{V_t}$$

Where:

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

SC_t is the actual security operating costs incurred by the Service Provider 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 Unit according to Clause 10.19.

10.16. Other Mandated Operating Cost Correction Term

10.16.1. 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 Unit. 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 Service Provider shall not be considered for correction within the Control Period.

10.16.2. 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.

10.16.3. The adjustment shall be made through the term OM_t in the formula in Clause 10.12.2 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 Service Provider in Tariff Year t ;

V_t is the actual volume for the Service Provider in Tariff Year t and is the divisor in the calculation of the Actual Yield per Unit according to Clause 10.19.

10.17. Statutory Operating Cost Correction Term

10.17.1. 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 Unit. 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 Service Provider. For avoidance of doubt, any change in Statutory Operating Cost relating to any input products or services procured by the Service Provider shall not be covered.

10.17.2. 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.

10.17.3. The adjustment shall be made through the U_t term in the formula in Clause 10.12.2 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 Service Provider 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 Unit according to Clause 10.19.

10.18. Recovery Error Correction Factor K

10.18.1. 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 10.18.2. The error correction term for a Tariff Year t shall be calculated according to Clause 10.20 and indicates the quantum of over-recovery or under-recovery due to increase or decrease respectively in Actual Yield per Unit with respect to Actual Maximum Allowed Yield per Unit in the Tariff Year.

10.18.2. The recovery error correction factor (K_t) shall be calculated as under:

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

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 10.20.



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

V_t is the actual volume handled by the Service Provider in Tariff Year t , and is the divisor in the computation of the Actual Yield per Unit for Tariff Year t according to Clause 10.19.

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 as determined by the Authority according to Clause 9.1.

Illustration 12: The following example illustrates the approach for calculating Actual Maximum Allowed Yield per Unit (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 integers.

		Actual Maximum Allowed Yield per Unit				
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per Unit for Tariff Year t after actual change in WPI	Y	1.96	2.12	2.30	2.47	2.65
Forecast Error correction	F	-	0.02	-	(0.01)	0.05
Security operating cost correction term	S	-	-	0.10	0.00	0.00
Other mandated operating cost correction term	OM	-	-	0.05	0.10	0.00
Statutory operating cost correction term	U	-	-	0.10	0.00	0.20
Error correction term for Tariff Year $t-2$	E_{t-2}	-	-	(246.14)	41.07	(274.90)
Compounding Factor	$r = FRoR$	16.0%	16.0%	16.0%	16.0%	16.0%
$E_{t-2} \times (1+r^2)$	C	-	-	(331.20)	55.27	(369.91)
Actual Volume	V	990	990	1,300	1,700	1,400
Recovery Error Correction Factor	$K = c/V$	-	-	(0.25)	0.03	(0.26)
Actual Maximum Allowed Yield per Unit, $AMAY = Y \times (1+F)+S+OM+U+K$	AMAY	1.96	2.16	2.30	2.58	2.72

- Forecast Error Correction shall be calculated according to Clause 10.14.
- Security operating cost correction term shall be calculated according to Clause 10.15
- Other Mandated operating cost correction term shall be calculated according to Clause 10.16
- Statutory operating cost correction term shall be calculated according to Clause 10.17
- The calculation of error correction terms is given in illustration 14.



10.19. Actual Yield per Unit

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

10.19.2. The Actual Yield per Unit shall be calculated as under:

	Total Actual Revenues
Less	Actual Revenues from services other than Regulated Service(s)
Equals	Actual Revenues subject to regulation
Divided by	Actual volume (V)
Equals	Actual Yield per Unit (AY)

Where:

'Total Actual Revenues' represents the total Actual Revenues, less revenues in respect of assets excluded from RAB.

'Actual Revenues from services other than Regulated Service(s)', represents such revenues from services other than Regulated Service(s) which were determined by the Authority in the Multi Year Tariff Order, 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 Service Provider.

'Actual volumes' means volumes measured on a basis that is consistent with the forecasts at the time of the last tariff review.

भा.वि.आ.वि.प्रा.

Illustration 13: The following example illustrates the approach for calculating Actual Yield per Unit (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 Unit, 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	2200	2,050.00	3300	4600	3500
Actual Revenues from services other than Regulated Service(s)	NAR	77	31	81	91	50



Actual Revenues subject to regulation	AR = R -- NAR	2123	2,019	3219	4509	3450
Actual volume	V	990	990	1300	1700	1400
Actual Yield per Unit	AY = AR /V	2.14	2.04	2.48	2.65	2.46

10.20. Error correction term

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

10.20.2. Apart from the various adjustments which have already been captured through the Actual Maximum Allowed Yield per Unit, such an error correction term will also capture over-recovery due to any other factors such as change in ATM mix. However, no under-recovery shall be considered for factors other than which have already been captured through the Actual Maximum Allowed Yield per Unit.

10.20.3. The error correction term for the Tariff Year shall be calculated as under:

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

where,

Difference is over-recovery or under-recovery of Actual Yield with respect to Actual Maximum Allowed Yield.

If Difference ≥ 0 , then error correction term for over-recovery shall be calculated as under:

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

Where:

DI_t 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.

If Difference < 0 , then error correction term for under-recovery shall be calculated as under:

$$\text{If } AY_t + (Y_t \times F_t) + S_t + OM_t + U_t + K_t \geq AMAY_t$$



Then, $E_t = (AMAY_t - AY_t) \times V_t$

Else,

$$E_t = ((Y_t \times F_t) + S_t + OM_t + U_t + K_t) \times V_t$$

Where

Y_t is the Yield per Unit, calculated according to Clause 10.13, for the Tariff Year t at the end of such year;

F_t is the forecast error correction term calculated according to Clause 10.14;

S_t is the security operating cost correction term calculated according to Clause 10.15;

OM_t is the other mandated operating cost correction term calculated according to Clause 10.16;

U_t is the statutory operating cost correction term calculated according to Clause 10.17;

K_t is the recovery error correction factor calculated according to Clause 10.18.; and

V_t is the actual volume handled by the Service Provider in Tariff Year t, and is the divisor in the computation of the Actual Yield per Unit for Tariff Year t according to Clause 10.19.

Explanation: In case of an under-recovery, the error correction term segregates any under-recovery as result of error in forecast of volumes by calculating the term $(Y_t \times F_t)$, which allows change in Y_t as a result of actual volumes.

The term $(Y_t \times F_t)$, is then added to the other terms (i.e. S_t , OM_t , U_t & K_t), so that only under-recoveries resulting from actuals of forecast volumes, security operating costs, other mandated operating costs, statutory operating costs and recovery error correction factor are allowed to be recovered.



Illustration 14: The following example illustrates the approach for calculating error correction term based on the information contained in Annual Compliance Statement. The numbers in the illustration have been rounded to the nearest 2 places of decimal.

		Error correction term				
		Tariff	Tariff	Tariff	Tariff	Tariff
		Year 1	Year 2	Year 3	Year 4	Year 5
Actual Yield per Unit	AY	2.14	2.04	2.48	2.65	2.46
Actual volumes	V	990	990	1300	1700	1400
Actual Maximum Allowed Yield	AMAY	1.96	2.16	2.30	2.58	2.72
(under) / over recovery	$D = AY - AMAY$	0.18	(0.12)	0.18	0.07	(0.25)
		over-recovery ($D \geq 0$)				
Error Correction	$AMAY - AY$	(0.18)	-	(0.18)	(0.07)	-
Error Correction Term for over recovery (in Rupees)	$E = (AMAY - AY) \times V$	(246.14)	-	(274.9)	(166.06)	-
		under-recovery ($D < 0$)				
Yield per Unit for Tariff Year t after adjustment for WPI	Y	1.96	2.12	2.30	2.47	2.65
Forecast Error Correction	F	-	0.02	-	(0.01)	0.05
Application of Forecast Error Correction Term	$(Y \times F)$	-	0.04	-	(0.02)	0.13
Security operating cost correction term	S	-	-	0.10	-	-
Other mandated operating cost correction term	OM	-	-	0.05	0.10	-
Statutory operating cost correction term	U	-	-	0.10	-	0.20
Recovery error correction term	K	-	-	(0.25)	0.03	(0.26)
Error correction	$YF + S + OM + U + K$	-	0.04	-	-	0.07
Error Correction Term for under recovery (in Rupees)		-	41.07	-	-	94.83

- Error correction term calculated above is an input to the recovery error correction factor (K_t)



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

10.21.1. The Authority shall normally provide corrections for the following components during the Control Period(s):

- (a) Yield per Unit (Y), calculated for actual change in WPI in the Tariff Year;
- (b) Forecast error correction term (Ft) for the Tariff Year t;
- (c) Security Operating Cost correction term (St) for the Tariff Year t;
- (d) Other Mandated Operating cost correction term (OMt) for the Tariff Year t;
- (e) Statutory Operating costs correction term (Ut) for the Tariff Year t;

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

- (a) Change in rate of tax on corporate income 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.
- (c) Such over-recovery (under-recovery), as determined by the Authority, shall be adjusted for determination of tariffs for the next Control Period.

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

- (a) Any variation in Operation and Maintenance Expenditure (other than Security Operating Costs, 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.




Chapter V

11. Procedure for determination of Tariff(s) for Regulated Service(s) under light touch approach

- 11.1. The Authority shall in terms of Clause 3 conclude its assessment of materiality, competition, and reasonableness of existing User Agreement(s) for Service Provider(s), providing Regulated Service(s) in the Multi Year Tariff Order for a given Control Period.
- 11.2. Service Provider(s), providing Regulated Service(s) deemed either (i) 'not material'; or (ii) 'material but competitive'; or (iii) 'material and not competitive' but where the Authority is assured of the reasonableness of the existing User Agreement(s), shall submit their Annual Tariff Proposals for approval of the Authority, in the manner and form provided in AI.8.1 of Appendix I. The said proposals shall be supported by the following:
- (a) Details of consultation with stakeholders along with:
- (i) documented evidence that consultations with stakeholders have been undertaken;
- (ii) summary of concerns raised by the stakeholders;
- (iii) details of remedial action, if any, undertaken by the Service Provider, with reasons, in respect of the concerns so raised;
- (iv) reasons for not addressing the balance concerns.
- (b) Evidence of User Agreement(s), if any, between the Service Provider(s) and the User(s) of the Regulated Service(s) clearly indicating the Tariff(s) that are proposed by the Service Provider and agreed to by User(s).
- 11.3. The Authority shall duly consider the proposals and may, where deemed necessary, direct analyses of the said proposals, require submissions of additional information, and further stakeholder consultations, prior to granting approval for the same.
- 11.4. The Service Provider(s) shall submit information, at the end of each Tariff Year, in the form and manner provided in Section AI.9.3 of Appendix I. In addition, the Service Provider(s) shall submit copies of annual audited statutory accounts.

By the Order of and in the name of the Authority


(Sandeep Prakash)
Secretary

To,

1. Airports Authority of India,
Rajiv Gandhi Bhawan,
New Delhi -110 003
(Through: Shri V.P Agrawal, Chairman)



2. Cochin International Airport Pvt.Ltd,
Nedumbassery, Pvt Ltd,
Cochin, Kerala
(Through: Dr.Krishnadas Nair, Managing Director)
3. Delhi International Airport Pvt.Ltd,
Uran Bhawan,
IGI Airport,
New Delhi – 110 037
(Through: Shri.Kiran Kumar Grandhi, Managing Director)
4. Hyderabad International Airport Pvt.Ltd,
GMR HIAL Airport Office
Shamshabad,
Hyderabad -500 409
(Through: Shri.Kiran Kumar Grandhi, Managing Director)
5. Mumbai International Airport Pvt Ltd,
CSI Airport,
Mumbai
(Through: Shri.G.V.Sanjay Reddy, Managing Director)
6. Bangalore International Airport Pvt.Ltd,
Administration Block,
Devanahalli, Bangalore- 560300
(Through: Shri.G.V.Sanjay Reddy, Managing Director)
7. M/s Kerala State Industrial Enterprises Ltd.,
Trivandrum Air Cargo Terminal,
Trivandrum -695008
8. M/s Kerala state Industrial Enterprises Ltd.,
Calicut Air Cargo Complex,
Karipur-673 647.
9. M/s. Central Warehousing Corporation,
Warehousing Bhawan,
4/1, Siri Institutional Area,
August Kranti Marg,
New Delhi – 110 016.
(Through: Shri B.B. Pattanaik, Managing Director)
10. M/s Rajasthan Small Scale Industries Corporation Ltd.,
Udyog Bhavan, Tilak Marg,
'C' Scheme,
Jaipur



11. M/s GSEC Limited, Air Cargo Complex,
Old Airport, Ahmedabad,
Regd. Office: 2nd Floor,
Gujarat Chambers,
Ashram Road, Ahmedabad-380 009
12. Air India SATS Airfreight services
Cargo Warehouse 2,
Bengaluru International Airport,
Devanahalli, Bangalore-560300
(Through : Mr.Henry Christopher, AVP)
13. Menzies Aviation Bobba (Bangalore) Limited.
Cargo Warehouse 1,
Bengaluru International Airport,
Devanahalli, Bangalore- 560300
(Through : Mr.Andy Brant, CEO)
14. Celebi Delhi Cargo Terminal Management (I) Private Limited
Import III, Cargo Terminal
IGI Airport, New Delhi – 110037
(Through: Shri .Sanjay Khanna,CEO)
15. Delhi Cargo Service Center Private Limited,
A-294/1, Road No. 6, NH-8,
Mahipalpur Extension, New Delhi-110037
(Through: Shri. Radharamanan Panicker, Director)
16. M/s Hyderabad Menzies Airport Cargo Pvt.Ltd.
Air Cargo International Airport,
Shamshabad,
Hyderabad -500409
(Through: Mr.Paul Smith,CEO)
17. Express Industry Council of India
501,Crystal Centre, Raheja Vihar,
Off. Chandivali Farm Road, Powai,
Mumbai 400 072.
18. M/s Bhadra International (India)Ltd.,
B-4/62, Safdarjung Enclave,
New Delhi-110029
(Through: Shri Prem Bajaj,Director)
19. M/s NAS Aviation Services India Pvt. Ltd.,
903-905,SAGAR TECH Plaza,
A-Wing, Andheri Kurla Road,
Mumbai -400 072
(Through: Shri.Hosi Charna, VP-BD & Admin)



20. M/s Indo Thai Airport Management Services Pvt.Ltd.,
5, JBS Harden Avenue, Silver Arcade,
Room No.S-2, Second Floor,
Kolkata-700 005
(Through: Shri Rakesh Jain, Director)
21. Globe Ground India Pvt. Limited
GSE 2, Bengaluru International Airport, Devanahalli,
Bangalore 560300
22. Bird-Worldwide Flight Service (I) Private Limited
Bird Consultancy Services Pvt. Ltd., E-Block,
Connaught House, Connaught Place,
New Delhi -110001
(Through: Shri. Gaurav Bhatia, Director)
23. Cambata Aviation Private Limited
IGI Airport Terminal 2
Line Maintenance
Block A, New Delhi – 110037
(Through : Mr. Yezdi Cooper, Airport Manager)
24. M/s Air India SATS Airport Services
Maintainenece centre, Gate No. 02
Rajiv Gandhi International Airport,
Shamshabad-500 409
R R District-AP(India)
(Through : Shri.Gopi Bala, Vice President)
25. Indian Oil Corporation Ltd.
(Navy Land)),
Indian Oil Bhawan,
G-9m Ali Yavar Jung Marg, Bandra(E),
Mumbai-400 051
(Through: Shri R Sareen, Executive Director (Aviation))
26. M/s. Essar Oil Ltd.
Essar Techno Park Building II,
Swan Mill Compound,
L.B.S.Marg, Kurla(W),
Mumbai-400 070.
(Through : Mr. Winford Joseph, DGM –Aviation Marketing)
27. Indian Oil Sky Tanking Limited.
Fuel Farm 1, Bengaluru international Airport,
Devanahalli, Bangalore-560300
(Through: Shri T.S. Dupare, Chief Executive Officer)

28. Delhi Aviation Fuel Facility (P) Ltd.
New Udaan Bhawan, Terminal 3, Opp.ATC Complex,
International Terminal, IGI Airport, New Delhi-110037
(Through: . Shri.Pradeep Panicker, Director)
29. Shell MRPL Aviation Fuels & Services Ltd
No.72/4, Cunningham Road
Opp: Cottage industries Exposition
Bangalore
(Through: Shri.Sanjay Varkey, CEO)
30. Reliance Industries Limited
Reliance Corporate Park,
Block-6, D-Wing, 2nd floor, 5-TTC Industrial Area,
Thane-Belapur Road, Ghansoli, Navy Mumbai.
(Through: Shri. P. Raghavendran, President (Petroleum Business))
31. Bharat Petroleum Corporation Ltd.
Bharat Bhavan, 4&6 Currimbhoy Road,
Ballard Estate, Mumbai 400 001.
(Through: Shri.S.P.Mathur, Executive Director (Aviation))
32. Hindustan Petroleum Corporation Ltd.
17, Petroleum House,
Jamshedji Tata Road, Mumbai 400 020.
(Through: . Shri.K.Srinivas, Head,Aviation SBU)
33. CELEBI NAS Airport Services India Pvt Ltd.
B407, Citi Point, Andheri Kurla Road,
Andheri (E), Mumbai -400 059.
(Through: Shri Sahil Mehta, Managing Director)
34. Blue Dart Aviation Ltd.,
No. 88-89 Old International Terminal,
Meenambakkam Airport,
Chennai-600 027.
(Through : Ms. Tulsi Nowlakra Mirchandaney, Managing Director)
35. Deccan Cargo & Express Logistics Pvt. Ltd.,
4th & 5th Floor, Raheja Paramount, 138,
Residency Road, Bangalore-560 025.
(Through : Capt. G. R. Gopinath, Chairman & Managing Director)
36. Bharat Stars Services (P) Ltd.
4th Floor, Plot A-5 &6,
Sector -1, NOIDA-201 301.
(Through : Shri Vijay Ranjan, CEO)
37. Aryan Cargo Express,
A-87/88, Road No. 4,
Mahipalpur Extn., New Delhi-37
(Through : Capt. Mukut Pathak)



Appendix I

AI.1. Procedure for collecting data and information required

- AI.1.1. To enable the Authority to determine Tariff(s) pursuant to these Guidelines, the Service Provider(s) shall submit a comprehensive Multi Year Tariff Proposal in the specified Form A and in accordance with Section AI.2.
- AI.1.2. During the Control Period, the Service Provider(s) shall maintain the required information for submission to the Authority as under:
- AI.1.2.1. Annual Tariff Proposal in accordance with Section AI.8;—
- AI.1.2.2. Annual Compliance Statement in accordance with Section AI.9.
- AI.1.3. The Service Provider(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.
- AI.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.
- AI.1.5. The information requirements are set out hereunder.

AI.2. Procedure for preparing the Multi Year Tariff Proposal (read with Clause 7.1)

- AI.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.
- AI.2.2. The Multi Year Tariff Proposal shall clearly demonstrate how the Service Provider has arrived at the proposed Aggregate Revenue Requirement based on consideration of the Regulatory Building Blocks and other aspects outlined in the business plan.
- AI.2.3. The Service Provider(s) shall also submit the calculation of the historic Aggregate Revenue Requirement on a basis that is consistent with the proposed Aggregate Revenue Requirement, if applicable. Such information shall be submitted in the specified Form F1(a).
- AI.2.4. The Multi Year Tariff Proposal should be supported by:
- AI.2.4.1. A copy of all agreements, and tender documents pursuant to which such agreements have been entered into wherever applicable, of the Service Provider with Airport Operator and other agencies for provision of Regulated Service(s) at the major airport;
- AI.2.4.2. Competition Assessment in accordance with. Section AI.3;
- AI.2.4.3. Service Provider Business Plan in accordance with Section AI.4;
- AI.2.4.4. Information relating to the Regulatory Building Blocks in accordance with Section AI.5;



- AI.2.4.5. Historical and forecasted Volume in accordance with Section AI.6;
- AI.2.4.6. Historical Revenues in accordance with Section AI.7.
- AI.2.5. The proposal shall include:
- AI.2.5.1. documented evidence that consultations with stakeholders have been undertaken;
- AI.2.5.2. summary of concerns raised by the stakeholders;
- AI.2.5.3. details of remedial action, if any, undertaken by Service Provider, with reasons, in respect of the concerns so raised;
- AI.2.5.4. reasons for not addressing the balance concerns.
- AI.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.
- AI.3. Competition Assessment**
- AI.3.1. The Service Providers, if they consider themselves operating in a competitive environment at a major airport, shall provide detailed evidence/ information to support such a position, in the format specified in Form F1 (b).
- AI.4. Service Provider Business Plan**
- AI.4.1. The Service Provider(s) shall submit a 5 year Business Plan, after due consideration and approval by its Board of Directors or such competent authority.
- AI.4.2. 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.
- AI.4.3. The Multi Year Tariff Proposal should reconcile with the Business Plan under submission.
- AI.4.4. 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, F-3 and F-4, 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.
- AI.4.5. The aggregate forecasted values in financial statements, to be submitted in the specified forms, must reconcile with the forecasted values under Regulatory Building Blocks.
- AI.4.6. 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.

AI.5. Information relating to Regulatory Building Blocks (read with Clause 9)

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

AI.5.2. Fair Rate of Return

AI.5.2.1. The Service Provider(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.

AI.5.2.2. Service Provider(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 AI.5.2.3, AI.5.2.4 and AI.5.2.5 of this Section AI.5.

AI.5.2.3. Cost of equity

(a) The Service Provider(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 Service Provider, the underlying asset and debt beta assumptions. Where international comparator analysis of betas is undertaken with other comparable Service Provider(s), a detailed justification of the basis for selecting the comparators would be required, including the regulatory regime faced by such Service Provider(s),

its consistency with the Authority's regulatory approach and any differences in the commercial environment.

- (b) The Service Provider(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) Service Provider(s) shall illustrate the sensitivity to changes in various assumptions for the most likely estimate together with a detailed sensitivity analysis in context thereto.

AI.5.2.4. Cost of debt

- (a) The Service Provider 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 Service Provider 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 Service Provider under a competitive procurement scenario.
- (c) The Service Provider(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 Service Provider to assesses different debt financing options and the approval procedures in context thereto.
- (d) The Service Provider(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, Service Provider(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 Service Provider 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 Service Provider 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).

AI.5.2.5. Gearing

- (a) The Service Provider(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 Service Provider. 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.

AI.5.3. Regulatory Asset Base

AI.5.3.1. Information on initial RAB as required in Clause 0, 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).

AI.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 Service Provider to another entity, if any.

AI.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.

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

AI.5.3.5. The Service Provider(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 Service Provider, 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.



AI.5.3.6. The Service Provider 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.

AI.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.



- AI.5.3.8. Service Provider(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.
- AI.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).
- AI.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).
- AI.5.3.11. Expenses proposed to be capitalised during the next Control Period shall be submitted in the specified Form F10(d).
- AI.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).
- AI.5.4. Depreciation
- AI.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.
- AI.5.5. Operation and Maintenance Expenditure
- AI.5.5.1. Service Provider(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 Service Provider(s) shall clearly identify efficiency considerations, if any, for each cost category in estimating operation and maintenance expenditure during the Control Period.
- AI.5.5.2. Payroll costs - The Service Provider(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.

AI.5.5.3. Administration and general expenses - Service Provider(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:

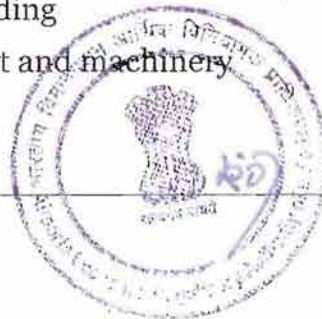
Provided that the said costs shall be further segregated as :

- (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
- (b) Copy of Board approvals, consultancy, legal, and other contracts, insurance documents, rent agreements and other relevant documents shall be submitted as proof thereof.
- (c) Costs related to capital projects proposed to be capitalized shall be submitted separately.

AI.5.5.4. Repair and maintenance costs - Service Provider(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.

AI.5.5.5. Utilities & outsourcing costs - Service Provider(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, if any, in relation thereto:

Provided that the department-wise list shall be the same as indicated in Section AI.5.5.2 hereinabove.

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

AI.5.5.6. Other Outflows - Service Provider(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.

AI.5.5.7. Current Assets and Liabilities - Service Provider(s) shall submit, in specified Form F11 (g), details for their Current Assets and Current Liabilities.

AI.6. Historical and forecasted volume

AI.6.1. The Service Provider(s) shall submit 10 year historical volume broken down by type of service provided.

AI.6.2. The Service Provider(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.

- AI.6.3. The key sensitive variables impacting the forecasts, its expected range and impact on the forecasts shall be clearly explained.
- AI.6.4. The Service Provider(s) shall submit a comparison of forecast numbers to other relevant forecasts (for example, forecasts made by IATA or other industry forums).
- AI.6.5. The forecast of cargo volume for provision of its service shall be submitted by the cargo facility Service Provider(s) in the specified Form F12 (a).
- AI.6.6. The historic and forecast ATM volume for provision of its service shall be submitted by ground handling Service Provider(s) in the specified Form F12 (b) and Form F12 (c) respectively.
- AI.6.7. The forecast of fuel throughput shall be submitted by fuel supply Service Provider(s) in the specified Form F12 (d).
- AI.6.8. 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), F12(c) and F12(d).

AI.7. Historical Revenues

- AI.7.1. The Service Provider(s) shall submit revenues received under the following heads, including the schedule of historic charges:
- AI.7.1.1. Break up of all revenues from Regulated Service(s) in the specified Form F13 (a).
- AI.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 Service Provider, benchmarking of revenue levels.
- (b) Description and details of schedule of charges for all other than aeronautical revenue-generating activities
- AI.7.1.3. 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.

AI.8. Procedure for preparing the Annual Tariff Proposal (read with Clause 10.8)

- AI.8.1. For Regulated Service(s) deemed 'material and not competitive' and where the Authority is not assured of the reasonableness of the existing User Agreement(s), the Service Provider(s) shall submit, for the consideration of the Authority an Annual Tariff Proposal based on Estimated Maximum



Allowed Yield per Unit for review of Tariff(s) to be charged in a Tariff Year in a Control Period, in the specified Form B, Form 14 (a) and Form F14 (b). The Tariff(s), as proposed by the Service Provider 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 following:

AI.8.1.1. Details of consultation with stakeholders along with:

- (a) documented evidence that consultations with stakeholders have been undertaken;
- (b) summary of concerns raised by the stakeholders;
- (c) details of remedial action, if any, undertaken by the Service Provider, with reasons, in respect of the concerns so raised;
- (d) reasons for not addressing the balance concerns.

AI.8.1.2. Evidence of User Agreements, if any, between the Service Provider and the User of the Regulated Service(s) clearly indicating the Tariff(s) that are proposed by the Service Provider.

AI.8.2. For Regulated Service(s) deemed either 'not material' or 'material but competitive' or 'material and not competitive' but where the Authority is assured of the reasonableness of the existing User Agreement(s), the Service Provider(s) shall submit, for the consideration of the Authority, an Annual Tariff Proposal for review of Tariff(s) to be charged in the following Tariff Year in a Control Period, in the specified Form B and Form F14 (b). The Tariff(s), as proposed by the Service Provider 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 following:

AI.8.2.1. Details of consultation with stakeholders along with:

- (a) documented evidence that consultations with stakeholders have been undertaken;
- (b) summary of concerns raised by the stakeholders;
- (c) details of remedial action, if any, undertaken by the Service Provider, with reasons, in respect of the concerns so raised;
- (d) reasons for not addressing the balance concerns.



AI.8.2.2. Evidence of User Agreements, if any, between the Service Provider and the User of the Regulated Service(s) clearly indicating the Tariff(s) that are proposed by the Service Provider.

AI.9. Procedure for preparing the Annual Compliance Statement (read with Clause 10.11)

AI.9.1. Service Provider(s), where the Regulated Service(s) is determined to be 'material and not competitive' and where the Authority is not assured of the reasonableness of the existing User Agreement(s), shall submit to the Authority an Annual Compliance Statement, in accordance with the requirement outlined above in Clause 10.11, and in the specified Form C and Form F15.

AI.9.2. In addition to the above, Service Provider(s) shall submit information pertaining to each Tariff Year on the following:

AI.9.2.1. Performance report on the Regulatory Building Blocks, in the specified Form F16;

AI.9.2.2. Revenues from Regulated Service(s) relating to individual Tariff(s), in the specified Form F17.

AI.9.2.3. Revenue from services other than Regulated Service(s), in the specified Form F18.

AI.9.2.4. Operation and Maintenance Expenditure, in the specified Form F19, 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.

AI.9.2.5. Cash flow statement, in the specified Form F4. The statement shall be supported by reconciliation with the net cash position in the audited accounts;

AI.9.2.6. P&L statement, in the specified Form F20. The statement shall be supported by reconciliation with the operating profit in the audited accounts;

AI.9.2.7. RAB reconciliation statement, in the specified Form F21, 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.

AI.9.3. The Service Provider(s), where the Regulated Service(s) is determined to be 'not material' or 'material but competitive' or 'material and not competitive' but where the Authority is assured of the reasonableness of the existing



User Agreement(s), shall submit to the Authority the information according to Section AI.9.2.1, AI.9.2.2, AI.9.2.3 and AI.9.2.4.

- AI.9.4. The Service Provider(s) shall have the information provided in Section AI.9.1 and AI.9.2 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.



सत्यमेव जयते

भा.वि.आ.वि.प्रा.
AERA



Appendix II

AII.1. Explanation of Materiality Assessment

AII.1.1. The Authority considers materiality assessment as a key stage in determining its approach for economic regulation of the Regulated Service(s), as presented in Clause 3.1.

AII.1.2. In respect of Regulated Service(s) provided for the cargo facility at the airport, the Authority considers that materiality of the service is linked to the cargo volume at the airport. The materiality shall be assessed based on cargo volume in MT at the major airport as a percentage of cargo volume in MT at all major airports, in terms of Clause 4.3. The percentage share of cargo volume for each major airport, as per latest available AAI statistics, is presented in the table below:

		Total Cargo Volume (in MT) April 2009 – March 2010	% of Total Cargo Volume at Major Airports
1	Mumbai	582,636	30.7%
2	Delhi	497,386	26.2%
3	Chennai	322,675	17.0%
4	Bangalore	174,644	9.2%
5	Kolkata	106,585	5.6%
6	Hyderabad	66,459	3.5%
7	Cochin	40,636	2.1%
8	Trivandrum	33,150	1.7%
9	Ahmedabad	22,675	1.2%
10	Pune	17,845	0.9%
11	Calicut	17,500	0.9%
12	Jaipur	6,209	0.3%
13	Guwahati	5,037	0.3%
14	Goa	4,377	0.2%
	Total	1,897,814	100%

Source: AAI Traffic Reporter

AII.1.3. In respect of Regulated Service(s) provided for the supply of fuel to the aircraft, the Authority considers that materiality of the service is linked to the fuel off take at the major airport. The materiality shall be assessed based on fuel off take at the major airport as a percentage of sum total of fuel off

take at all major airports, according to Clause 4.1. The percentage share of fuel off take for each major airport, as per information received from the major airports, is presented in the table below:

	Fuel throughput in Kilo Litres April 2009 – March 2010	% of Total Fuel throughput in Kilo Litres at Major Airports	
1	Delhi	1574834	31.97%
2	Mumbai	1370146	27.81%
3	Chennai	468028	9.50%
4	Bangalore	397655	8.07%
5	Hyderabad	291737	5.92%
6	Kolkata	159104	3.23%
7	Cochin	151451	3.07%
8	Calicut	108630	2.21%
9	Ahmedabad	88370	1.79%
10	Trivandrum	84053	1.71%
11	Goa	63823	1.30%
12	Guwahati	64177	1.30%
13	Pune	59944	1.22%
14	Jaipur	44586	0.91%
	Total	4926539	100%

Source: Individual Airports

AII.1.4. In respect of Regulated Service(s) provided for ground handling services relating to aircraft, passengers and cargo at an airport, the Authority notes that under the recent Policy circular (as laid down vide AIC 03/2010 dated 2nd June 2010 issued by Director General of Civil Aviation) self-handling by all airlines, except foreign airlines, is permitted at all airports, except at the airports located at Delhi, Mumbai, Chennai, Kolkatta, Bangalore and Hyderabad. Even at metro airports, the policy lays down the requirement of three or more Service Provider(s). This policy prescription almost eliminates the possibility of airlines, except foreign airlines, facing monopoly situation in ground handling services. However, in absence of self handling option to foreign airlines, ground handling services to foreign airlines are to be provided by independent Service Provider, which can lead to a monopoly situation in absence of competition according to Clause 5.

AII.1.5. The Authority, therefore, considers that materiality assessment of the Regulated Service(s) provided for ground handling services relating to aircraft, passengers and cargo at an airport is more pertinent to the foreign airlines (both passenger and cargo). As such, the materiality shall be assessed based on international aircraft movements at the major airport as a percentage of total international aircraft movements at all major airports,



according to Clause 4.4. The percentage share of international aircraft movements for each major airport, as per latest available official statistics, is presented in the table below:

	Aircraft Movements (International) April 2009 – March 2010	% of Total International Aircraft Movements at Major Airport
1	Mumbai 65,169	24.8%
2	Delhi 63,438	24.1%
3	Chennai 31,674	12.1%
4	Cochin 18,091	6.9%
5	Trivandrum 15,185	5.8%
6	Calicut 14,708	5.6%
7	Hyderabad 13,567	5.2%
8	Bangalore 13,509	5.1%
9	Kolkata 13,493	5.1%
10	Ahmedabad 7,036	2.7%
11	Goa 3,028	1.2%
12	Jaipur 2,730	1.0%
13	Pune 1,156	0.4%
14	Guwahati 46	0.0%
	Total 262,830	100%

Source: AAI Traffic Reporter

भा.वि.आ.वि.प्रा.
AERA



Appendix III

Comprehensive Illustration of determination of Aggregate Revenue Requirement

This appendix provides a comprehensive illustration of the computation of the Aggregate Revenue Requirement and the Regulatory Building Blocks. Full details of each illustration are provided in the Chapter III. The numbers in all illustrations have been rounded to the nearest integers.

Illustration I: The following example illustrates the calculation of Aggregate Revenue Requirement for a Control Period.

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
RAB for calculating ARR	RAB	1,661	1,757	1,469	1,525	1,649
Fair Rate of Return applied to the RAB	FRoR	16%	16%	16%	16%	16%
	RAB x FRoR	266	281	235	244	264
Depreciation	D	192	249	226	242	191
Operation and Maintenance Expenditure	O	2,000	2,200	2,400	2,550	2,800
Tax Revenues from services other than Regulated Services	T NAR	40 79	31 29	269 75	432 95	606 53
		ARR ₁	ARR ₂	ARR ₃	ARR ₄	ARR ₅
Aggregate Revenue Requirement	$ARR_i = RAB_i \times FRoR + O_i + D_i + T_i - NAR_i$	2,419	2,732	3,055	3,373	3,807

Illustration II: The following example illustrates this approach where the forecasted debt, equity and cost of debt varies over the Control Period.

Fair rate of Return					
	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Debt (D)	2,000	2,700	2,700	2,700	2,900
Equity (E)	1,500	1,500	1,500	3,000	3,000
Debt+Equity (C)	3,500	4,200	4,200	5,700	5,900
Cost of Debt (Kd)	13.00%	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%	63.4%	47.4%	49.2%
Weighted Average Gearing (WG)	55.3%				
Weighted Average Cost of Debt (R _d)	14.3%				
Cost of Equity (R _e)	18.0%				
Fair Rate of Return	16.0%	FRoR = WG x R _d + (1-WG) x R _e			

Illustration III: 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	1,575	1,440	1,881	1,632	1,306	1,745
Commissioned Assets	CA	-	633	-	-	681	-
Depreciation	DR	135	192	249	226	242	191
Disposals	DI	-	-	-	100	-	-
Incentive Adjustments	IA	-	-	-	-	-	-
Closing RAB _t	CR=OR+CA-DR-DI+IA	1,440	1,881	1,632	1,306	1,745	1,554
RAB for calculating ARR	RA=(OR+CR)/2		1,661	1,757	1,469	1,525	1,649

Illustration IV: The following example illustrates this approach for calculation of Initial RAB.

Fixed assets data from fixed asset register						
Asset	Useful Economic Life (EL)	Original Cost of Fixed Assets (OC)	Capital Receipt (CR)	Depreciation rate (DR = 1/EL)	Years in Operation (Y)	Accumulated Depreciation AD = (OC-CR)x0.9 x DR x Y
Asset 1	25	1,250	-	4.00%	5	225
Asset 2	10	2,000	1,000	10.00%	5	450
	Total	3,250	1,000			675

Initial RAB Valuation		
Original Cost of fixed assets	3,250	OC
Accumulated depreciation	675	AD

Capital receipt	1,000	CR
Initial RAB	1,575	IR=OC-AD-CR

Illustration V: The following example illustrates the approach for forecasting depreciation for the Control Period

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	1,250	25	4.00%	45	45	45	23	-	-
Asset 2	2,000	10	10.00%	90	90	90	90	90	
Asset 3	633	5	20.00%	-	57	114	114	114	114
Asset 4	681	8	12.50%	-	-	-	-	38	77
			Total	135	192	249	226	242	191

Illustration VI: The following example illustrates this approach for calculation of Work in progress assets, financing allowance and commissioned 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 x (OW+(CE-CA-CR)/2)	-	-	37	80	43	-
Capital Receipts	CR	-	200	-	-	-	-
Commissioned Assets	CA	-	633	-	-	681	-
Closing WIP: WIP _t	CW = OW + CE + FA - CR - CA	-	-	558	638	-	-



Appendix IV

Comprehensive Illustration of determination of error correction procedure

This appendix provides a comprehensive illustration of the error correction procedure outlined in Chapter V. The numbers in the illustration have been rounded to the nearest integers or two decimal places, where appropriate.

Illustration A: The following example illustrates the approach for calculating Yield per Unit (Y), Y_1 and X_t . These Aggregate Revenue Requirement and Units in the illustration have been rounded to the nearest integers and the Yield per Unit has been rounded to nearest 2 decimal places.

		Yield per Unit (Y)				
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Aggregate Revenue Requirement	ARR	2,419	2,732	3,055	3,373	3,807
Volume estimated	VE	1000	1150	1323	1521	1749
Present Value (ARR)	PV (ARR)	2,419	2,355	2,271	2,161	2,103
Σ PV(ARR)		11,308				
Σ VE		6,743				
$Y = \Sigma$ PV(ARR) / Σ VE		1.68				

		Y ₁ 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 Unit for Tariff Year t	Y _t	1.96	2.12	2.29	2.47	2.67
Revenue = VE x Y	VE x Y	1,964	2,439	3,030	3,762	4,672
Present Value (VE x Y)	PV (VE x Y)	1,964	2,102	2,252	2,410	2,580
Σ PV(VE x Y)		11,308				
Σ VE		6,743				
$Y = \Sigma$ PV(VE x Y) / Σ VE		1.68				

- Y_1 and X are calculated considering various factors such that



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

- In this illustration, for simplicity, X has been taken as same for all 5 years
- Yield per Unit for the second Tariff Year onwards (i.e. Y_2 to Y_5) is calculated using the formula: $Y_t = Y_{t-1} \times (1+WPI-X)$
- the discounting rate for calculating PV is equal to the Fair Rate of Return determined by the Authority according to Clause 9.1

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

Estimated Maximum Allowed Yield per Unit

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per Unit for Tariff Year t	Y	1.96	2.12	2.29	2.47	2.67
Error correction term for Tariff Year t-2	E_{t-2}	-	-	(246.14)	41.07	(274.90)
Compounding Factor	$r = FRoR$	16.0%	16.0%	16.0%	16.0%	16.0%
$E_{t-2} \times (1+r)^2$	a	-	-	(331.20)	55.27	(369.91)
Volume Estimated	VE	1,000	1,150	1,323	1,521	1,749
Recovery Error Correction Factor	$K=a/VE$	-	-	(0.25)	0.04	(0.21)
Estimated Maximum Allowed Yield per Unit	$EMAY_t = Y+K$	1.96	2.12	2.04	2.51	2.46

- Yield per Unit for the purpose of calculating Estimated Maximum Allowed Yield per Unit shall be determined by the Authority in the Multi Year Tariff Order. The calculation of the Yield per Unit is given in illustration A.
- Compounding factor, r , for error correction term shall be equal to the $FRoR$ as calculated in Illustration II in Appendix III.
- Error correction term for Tariff Year t-2, calculated in Illustration F, is used for calculating $EMAY$ for Tariff Year t.
- The Tariff(s) proposed for the Tariff Year shall be consistent with Estimated Maximum Allowed Yield per Unit



Illustration C: 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.

		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Actual volume	V	990	990	1300	1700	1400
Estimated Volume	VE	1000	1150	1323	1521	1749
Upper band	VH = VE x 1.1	1100	1265	1455	1673	1924
Lower band	VL = VE x 0.9	900	1035	1191	1369	1574
Upper band correction term	FH	-	-	-	(0.018)	0.000
Lower band correction term	FL	-	0.039	-	0.000	0.100
Forecast Error Correction	F = 0.5 x FL or F = 0.5 x FH	-	0.02	-	-	0.05

- 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 as:

If $V_t \geq VH_t$,

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

If $V_t < VL_t$,

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

And, if $VL_t \leq V_t < VH_t$

$$F_t = 0$$



Illustration D: The following example illustrates the approach for calculating Actual Maximum Allowed Yield per Unit (AMAY) 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 per Unit				
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Yield per Unit for Tariff Year t after actual change in WPI	Y	1.96	2.12	2.30	2.47	2.65
Forecast Error correction	F	-	0.02	-	(0.01)	0.05
Security operating cost correction term	S	-	-	0.10	0.00	0.00
Other mandated operating cost correction term	OM	-	-	0.05	0.10	0.00
Statutory operating cost correction term	U	-	-	0.10	0.00	0.20
Error correction term for Tariff Year t-2	E_{t-2}	-	-	(246.14)	41.07	(274.90)
Compounding Factor	$r = \text{FRoR}$	16.0%	16.0%	16.0%	16.0%	16.0%
$E_{t-2} \times (1+r)^2$	C	-	-	(331.20)	55.27	(369.91)
Actual Volume	V	990	990	1,300	1,700	1,400
Recovery Error Correction Factor	$K = c/V$	-	-	(0.25)	0.03	(0.26)
Actual Maximum Allowed Yield per Unit, $\text{AMAY} = Y \times (1+F)+S+OM+U+K$	AMAY	1.96	2.16	2.30	2.58	2.72

- Forecast Error Correction shall be calculated according to Illustration C.
- Security operating cost correction term shall be calculated according to Clause 10.15
- Other Mandated operating cost correction term shall be calculated according to Clause 10.16
- Statutory operating cost correction term shall be calculated according to Clause 10.17
- Error correction term for Tariff Year t-2, calculated in Illustration F, is used for calculating AMAY for Tariff Year t.



Illustration E: The following example illustrates the approach for calculating Actual Yield per Unit (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 Unit, 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	2200	2,050.00	3300	4600	3500
Actual Revenues from services other than Regulated Service(s)	NAR	77	31	81	91	50
Actual Revenues subject to regulation	AR = R – NAR	2123	2,019	3219	4509	3450
Actual volume	V	990	990	1300	1700	1400
Actual Yield per Unit	AY = AR /V	2.14	2.04	2.48	2.65	2.46

सत्यमेव जयते

भा.वि.आ.वि.प्रा.
AERA



Illustration F: The following example illustrates the approach for calculating error correction term based on the information contained in Annual Compliance Statement. The numbers in the illustration have been rounded to the nearest 2 places of decimal.

		Error correction term				
		Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
Actual Yield per Unit	AY	2.14	2.04	2.48	2.65	2.46
Actual volumes	V	990	990	1300	1700	1400
Actual Maximum Allowed Yield	AMAY	1.96	2.16	2.30	2.58	2.72
(under) / over recovery	$D = AY - AMAY$	0.18	(0.12)	0.18	0.07	(0.25)
		over-recovery ($D \geq 0$)				
Error Correction	$AMAY - AY$	(0.18)	-	(0.18)	(0.07)	-
Error Correction Term for over recovery (in Rupees)	$E = (AMAY - AY) \times V$	(246.14)	-	(274.9)	(166.06)	-
		under-recovery ($D < 0$)				
Yield per Unit for Tariff Year t after adjustment for WPI	Y	1.96	2.12	2.30	2.47	2.65
Forecast Error Correction	F	-	0.02	-	(0.01)	0.05
Application of Forecast Error Correction Term	$(Y \times F)$	-	0.04	-	(0.02)	0.13
Security operating cost correction term	S	-	-	0.10	-	-
Other mandated operating cost correction term	OM	-	-	0.05	0.10	-
Statutory operating cost correction term	U	-	-	0.10	-	0.20
Recovery error correction term	K	-	-	(0.25)	0.03	(0.26)
Error correction	$YF + S + OM + U + K$	-	0.04	-	-	0.07
Error Correction Term for under recovery (in Rupees)		-	41.07	-	-	94.83

- Error correction term calculated above is an input to the recovery error correction factor (K_t)



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 A1.1 of Appendix I)

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:

सत्यमेव जयते

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 ('the Authority');
2. I am competent to make this submission before the Authority;
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 inter alia (i) Business Plan; (ii) Information relating to the Regulatory Building Blocks; (iii) Competition Assessment; (iv) Historical and Forecasted Volumes; and (v) Historical Revenues, 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 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 ('the Authority');
2. I am competent to make this submission before the Authority;
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 inter alia
(i) Estimated Maximum Allowed Yield per Unit and the proposed detailed break-up of Tariff(s) (in context to Estimated Maximum Allowed Yield per Unit where determined by the Authority) where the Authority has specified a price cap approach for the duration of the Control Period, pursuant to Clause 3.2;

OR

Proposed detailed break-up of Tariff(s) based on Clause 11.2 where the Authority has specified a light touch approach for the duration of the Control Period, pursuant to Clause 3.2 (*strikeout whichever is not applicable*); and

(ii) 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 ('the Authority');
2. I am competent to make this submission before the Authority;
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:

भा.वि.आ.वि.प्रा.
AERA

Form F1 (a): Historical and Proposed Aggregate Revenue Requirement (ref: Section A1.2 of Appendix I)

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

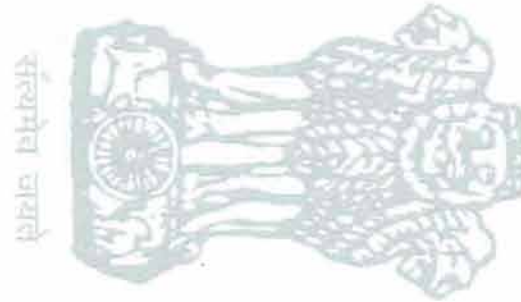


भा.वि.आ.वि.पा.
AERA



Sl. No.	Details of competitive facilities
1	
2	
3	
4	
5	
6	

भा.वि.आ.वि.पा.
AERA



Form F2 : Historical and Projected Balance Sheet (ref: Section AI.4 of Appendix I)

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												
	a) Share Capital												
	b) Share Application Money												
	c) Reserves and Surplus												
	...												
	B) Loan Funds												
	a) Secured Loans												
	b) Unsecured Loans												
	...												
	C) Capital Grants												
	...												
	D) Deferred Tax Liability												
	...												
	TOTAL SOURCES OF FUNDS												
2	APPLICATION OF FUNDS												
	A) Fixed Assets												
	a) Gross Block (Net of assets not in use)												
	b) less: Accumulated Depreciation												
	c) Net Block												
	d) Capital Work in Progress												
	...												
	B) Investments												
	C) Deferred Tax Assets												
	D) Current Assets, Loans and Advances												
	a) Sundry Debtors												
	b) Cash and Bank Balances												
	c) Inventories												
	d) Other Current Assets												
	e) Loans and Advances												
	...												
	provisions:												
	a) Liabilities												
	b) Provisions												
	...												
	Net Current Assets												
	TOTAL APPLICATION OF FUNDS												

Fields in italics are indicative only



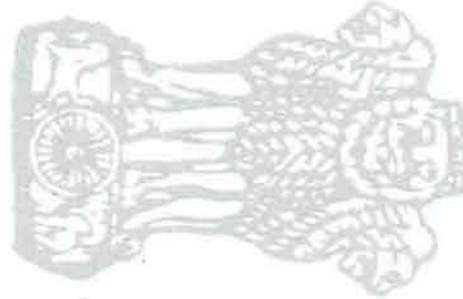
Form F3: Historical and Projected Profit and loss account (ref. Section A1.4 of Appendix I)

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	Operating 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

आ. वि. आ. वि. प्रा.
AERA

संघर्षेण विजयते



Form F4: Historical and Projected Cash Flow Statement (ref: Section A1.4 of Appendix I)

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 :												
	Depreciation and Amortisation												
	Loss / (Profit) on sale of assets(net)												
	Interest Income												
	Provisions - Additions (Write back) Net												
	Operating Profit before working capital changes												
	Adjustment for :												
	Decrease(increase) in Trade Receivables												
	Decrease(increase) in Inventories												
	Loans and Advances												
	(Decrease)/increase in Sundry Creditors												
	Cash generated from operation												
	...												
	Net Cash Flow from Operating Activities												
2	Cashflow from investing activities												
	Detail of cashflow from investing activity #1												
	Detail of cashflow from investing activity #2												
												
3	Cashflow from financing activities												
	Detail of cashflow from financing activity #1												
	Detail of cashflow from financing activity #2												
												
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



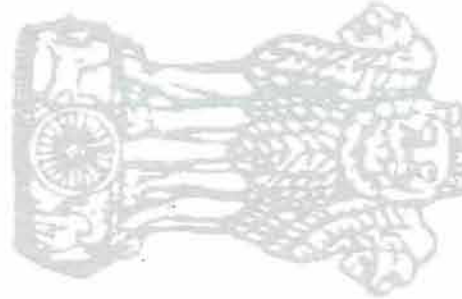
Form F5: Cost of Equity and Post-tax FRoR Forecast (ref. Section A1.5 of Appendix I)

	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

AERA
 आ. वि. आ. वि. मा.

भारत
 गणराज्य



Form F6 (a): Loan Master (ref. Section A1.5 of Appendix I)

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

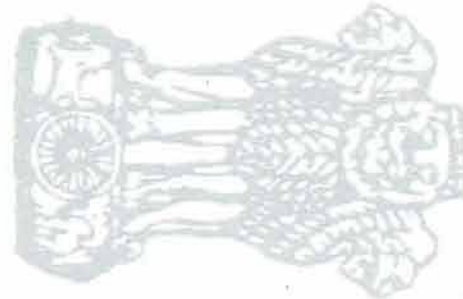
PS	Project Specific
WC	Working Capital

> 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

भारत सरकार



Form F6(b): Summary Statement of Interest and Finance Charges (ref: Section A1.5 of Appendix I)

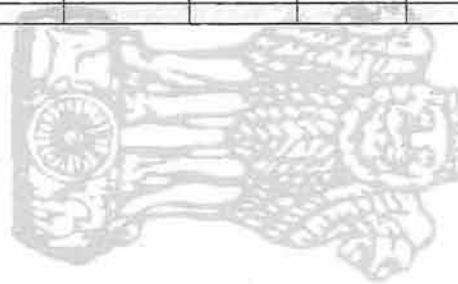
Sl.No.	Particulars	Last available audited year [^]	Financial Year before Tariff Year 1 [*]	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	1 Interest charges on Government Loans, Bonds And Advances							
	Government Loans							
	Bonds							
	Foreign Currency Loans / Credits							
	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

राजभाषा विभाग



Form F6 (c): Contributions, Grants and subsidies Master (ref: Section A1.5 of Appendix 1)

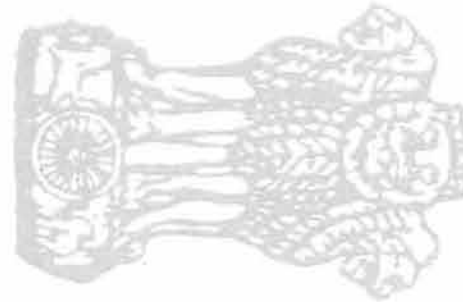
Contributions																										
Particulars	Source	Total Amount	Last available audited year#			Financial Year before Tariff Year 1*			Tariff Year 1			Tariff Year 2			Tariff Year 3			Tariff Year 4			Tariff Year 5					
			OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.	CB	OB	Add.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

AERPA
 आ.वि.आ.वि.पा.

भारत सरकार
 भारत सरकार

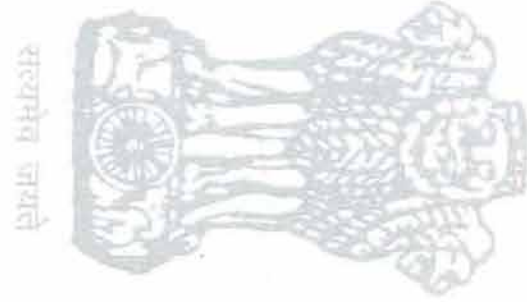


Form F7: Format for identifying Initial Regulatory Asset Base (ref: Section AI.5 of Appendix I)

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								

भा.वि.आ.वि.पा.
AERA



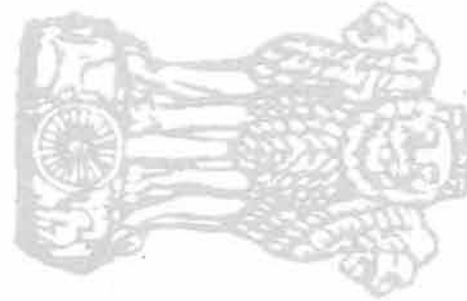
Form F8 (a): Format for providing asset-wise information of stakeholder contributions (ref: Section A1-5 of Appendix I)

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	<i>Grant</i>	<i>Asset A</i>										
2		<i>Asset B</i>										
3		.....									
4	<i>Development Fee</i>	<i>Asset C</i>										
5		.....									

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

आ. वि. आ. वि. प्रा.
AERA

सत्यमेव जयते

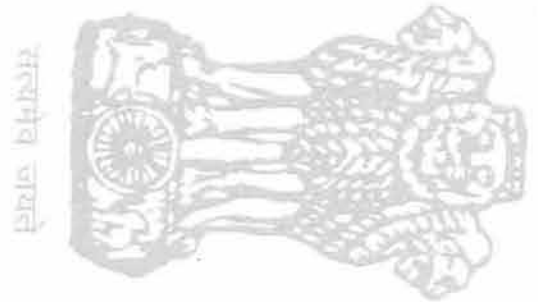


Form F8 (b): Format for providing proposed exclusions from RAB (ref. Section AI.5 of Appendix I)

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

आ. वि. आ. वि. मा.
AERA



Form F9: Formats for Forecast and Actual Roll-forward RAB (ref: Section AI.5 of Appendix J)

		Last available audited year [^]	Financial Year before Tariff Year 1*	Forecast for the Control Period				
				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 A1.5 of Appendix 1)

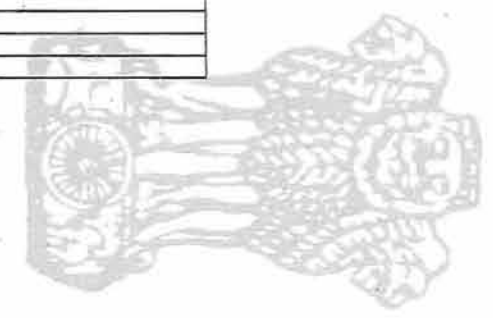
Project Details				Projected Capital Expenditure																			
S.N.	Project Name	Project Type	Comm. Date	Tariff Year 1				Tariff Year 2				Tariff Year 3				Tariff Year 4				Tariff Year 5			
				Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP	Capex	Com.	CDate	WIP
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	Comm. 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
Comm. 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

ERA
आ.वि.प्र.



Form F10 (b): Capital Expenditure Projected Plan - 10 year Master (ref: Section A1.5 of Appendix D)

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

Project Details

S.N.	Project Name	Project Type	Comm Date	Financial Year before Tariff Year 1*	Estimated WIP, Capex and Commissioning in each year																							
					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						
1	Project 1	Buildings																										
2	Project 2	Vehicles																										
3	Project 3	P&M																										
4	Project 3	F&F																										

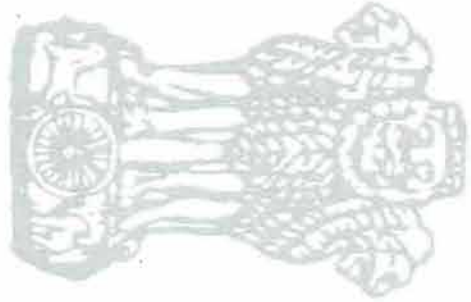
Legend

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
Comm. 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
e Fields in italics are indicative only

AERA
वि.आ.वि.प्रा.

सत्यमेव जयते



Form F10(c): Year-wise Capital Expenditure Financing Plans for next 10 years (ref: Section AI.5 of Appendix I)

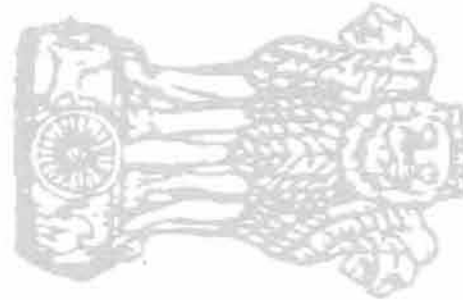
Note:- Information to be provided for 10 year period for all projects either spilling into the period or starting during the period

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

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

आ. वि. आ. वि. प्रा.
AERA

श्रीलक्ष्मी चरणे



Form F10 (d): Summary Statement of Expenses Capitalised (ref. Section AI-5 of Appendix I)

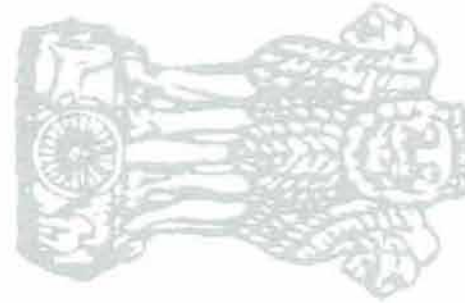
Sl.No.	Particulars	Last available audited year#	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	Interest and Finance Charges Capitalised							
B	Cost of raising finance & Bank Charges							
C	Other Expenses Capitalised							
	Employee Expenses							
	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

आ. वि. आ. वि. प्रा.
AERA

सत्यमेव जयते



Form F10 (e): Additional Capital Projects Summary (ref: Section AI.5 of Appendix I)

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



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>							
							

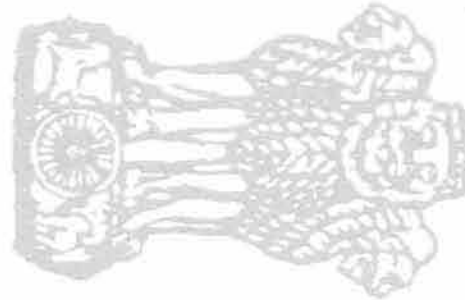
[^] Projected values to be provided

* Fields in italics are indicative only

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

आ. वि. आ. वि. प्र. ग.
 AERA

संसद सभे



Form F11 (b): Payroll Related Expenditure and Provisions (ref: Section AI.5 of Appendix I)

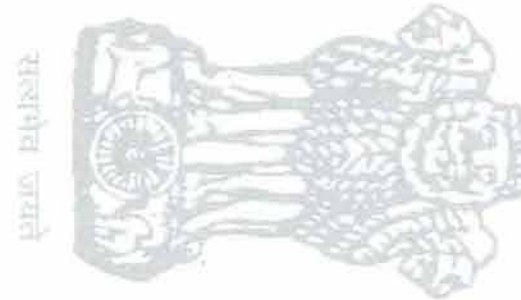
S.N.	Particulars - with detailed breakup	Last available audited year [^]	Financial Year before Tariff Year 1 [*]	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	<i>Salaries and Wages</i>							
B	<i>PF Contribution</i>							
C	<i>Medical Expenses</i>							
D	<i>Overtime</i>							
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

आ. वि. आ. वि. मा.
 AERA



Form F11 (c): Administration and General Expenditure (ref: Section A1.5 of Appendix I)

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 AI,5 of Appendix I)

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							

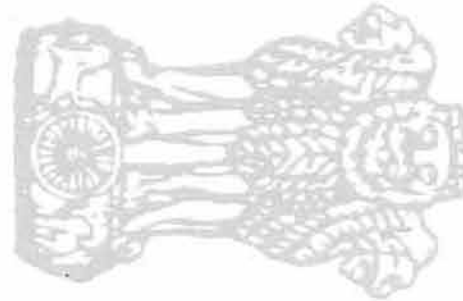
* Projected values to be provided

Fields in italics are indicative only

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

भा.वि.आ.वि.पा.
AERA

भारतीय गणराज्य



Form F11 (e): Utilities and Outsourcing Expenditure (ref. Section A1.5 of Appendix D)

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

AIRPORT AUTHORITY OF INDIA
 AIRPORTS REGULATORY AUTHORITY
 AIRCRA

भारतीय विमानतंत्र प्राधिकरण
 विमानतंत्र विनियामक प्राधिकरण



Form F11 (f) - Other Outflows (ref: Section AI.5 of Appendix I)

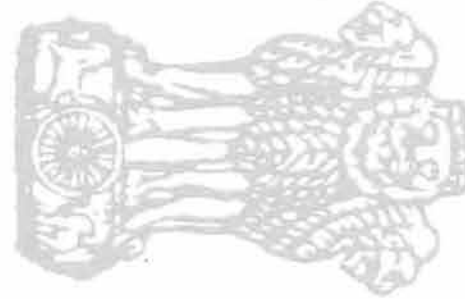
S.N.	Particulars	Last available audited year#	Financial Year before Tariff Year 1*	Tariff Year 1	Tariff Year 2	Tariff Year 3	Tariff Year 4	Tariff Year 5
A	....						
B	....						
C	....						
1	Grand Total							

* Projected values to be provided

Information for last financial year for which audited accounts are available

भा.वि.आ.वि.पा.
AERA

सत्यमेव जयते



७

Form F11 (g) - Current Assets and Liabilities (ref: Section AI.5 of Appendix I)

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



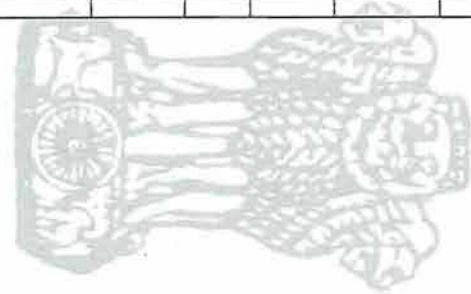
Form F12 (a)- Historical and Projected Cargo Volumes in tonnes (ref. Section A1.6 of Appendix I)

Year	Domestic								International								Forecast Error Correction band*	
	Loaded				Unloaded				Loaded				Unloaded					
	General	Perishable	Valuable	Other	General	Perishable	Valuable	Other	General	Perishable	Valuable	Other	General	Perishable	Valuable	Other		
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

आ.वि.आ.वि.प्रा.
 ERA

सत्यमेव जयते

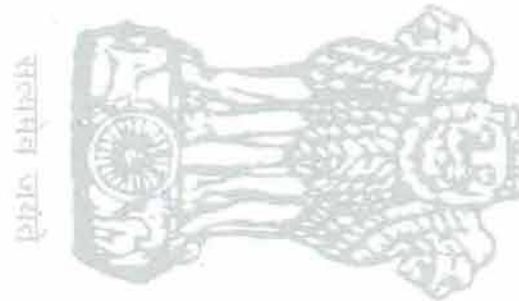


Form F12 (b)- Historical Aircraft Movements (ref: Section A1.6 of Appendix I)

Year	Domestic (Landing)	International (Landing)
2003-04		
2004-05		
2005-06		
2006-07		
2007-08		
2008-09		
2009-10		
2010-2011*		

* Projected values to be provided

वि.आ.वि.भा.
 AERA

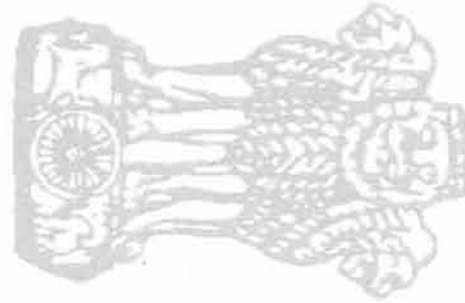


Form F12 (c): Projected Aircraft Movements (ref: Section AI.6 of Appendix I)

Year	Domestic (Landing)			International (Landing)			Forecast Error Correction band
	Optimistic	Most Likely	Conservative	Optimistic	Most Likely	Conservative	
2011-2012							
2012-2013							
2013-2014							
2014-2015							
2015-2016							
2016-2017							
2017-2018							
2018-2019							
2019-2020							
2020-2021							

AIR. वि. आ. वि. मा.
AERA

संसद भवन
 भारत



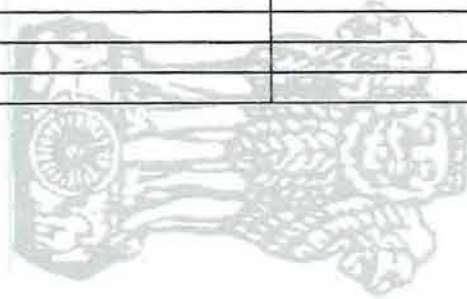
Form F12 (d) - Historical and Projected fuel throughput in kilolitres (ref: Section A1.6 of Appendix I)

Year	<i>Domestic Flights</i>	<i>International Flights</i>	Forecast Error Correction Band*
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

AIRERA
 आ.वि.आ.वि.ग.

भारत गणराज्य



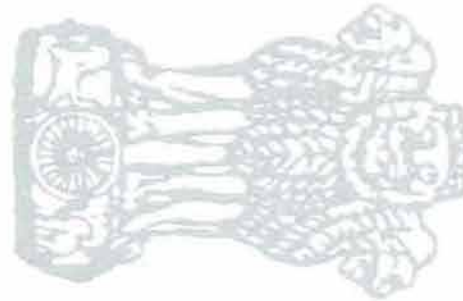
Form F13 (a) - Historical Tariff(s) and Revenues from Regulated Services (ref: Section A1.7 of Appendix I)

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	Tariff 1														
2	Tariff 2														
3	Tariff 3														
4	.....													
	Total Revenues														

* Fields in italics are indicative only

भा. वि. आ. वि. प्रा.
AERA

राष्ट्रीय चक्र



Form F13 (b) - Historical and Projected revenues from services other than Regulated Services (ref. Section A1.7 of Appendix I)

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							

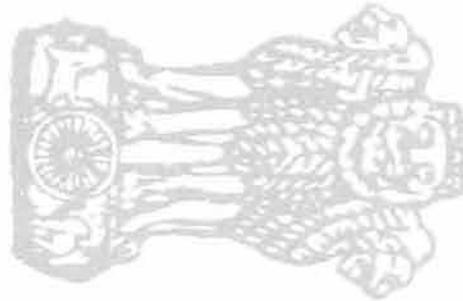
* Projected values to be provided

Fields in italics are indicative only

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

आ. वि. आ. वि. प्रा.
AERA

सत्यमेव जयते



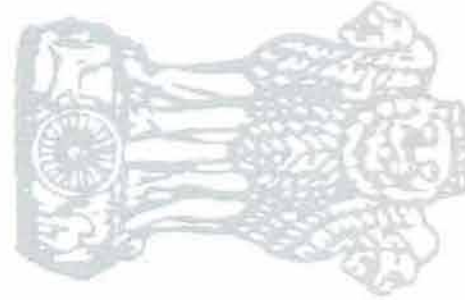
Handwritten signature and official stamp of the Authority.

Form F14 (a): Annual Tariff Proposal For Tariff Year t - Format for providing information on EMAY (ref: Section AI.8 of Appendix I)

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

भा.वि.आ.वि.पा.
AERA

राज्यमेव जयते



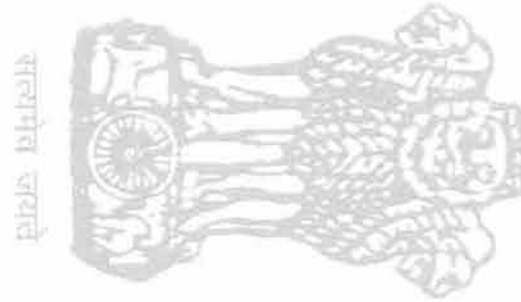
Form F14 (b): Annual Tariff Proposal For Tariff Year t - Format for providing information on Tariff (s) (ref: Section A1.8 of Appendix I)

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 Service Provider 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

आ.वि.आ.वि.पा.
 AERA

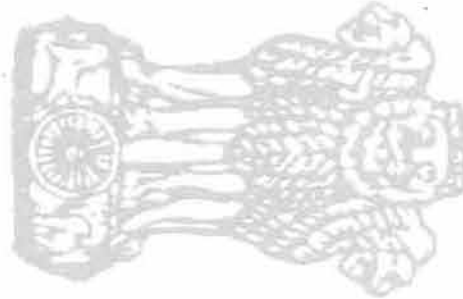


Form F15: Annual Compliance Statement (ref: Section AI.9 of Appendix I)

S.N.	Particulars	Actuals for the Tariff Year under consideration
1	Yield per Unit	
	Actual WPI during the year	
2	Actual Maximum Allowed Yield per Unit	
	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 Unit	
	Revenues subject to yield cap	
	Volumes	
4	Over recovery of allowed yield - Error correction	

आ. वि. आ. वि. प्रा.
AERA

सत्यमेव जयते

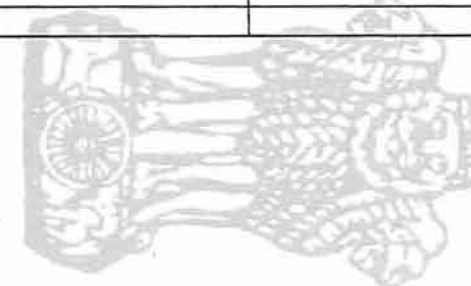


Form F16: Performance Report for the Tariff Year (ref: Section AI.9 of Appendix I)

	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)		
Operating Expenditure (3)		
Depreciation (4)		
Total Expenditure (3) + (4) = (5)		
Regulatory operating Profit (1) - (2) - (5) = (6)		
Capital expenditure (7)		
<i>Opening RAB (8)</i>		
<i>Disposals/ Transfers (9)</i>		
<i>Closing RAB (8) + (7) - (9) = (10)</i>		
<i>Average RAB (8) + (10) / 2 = (11)</i>		
<i>Return on Average RAB (6) / (11)</i>		
<i>Total Volume (Cargo/Fuel throughput/ ATM) (12)</i>		
<i>Actual yield per unit (12/1)</i>		

Fields in italics are only required for Service Provider deemed 'material' and 'non-competitive'

AIR. वि. भा. वि. मा.
 AIR. वि. भा. वि. मा.
 AIR. वि. भा. वि. मा.

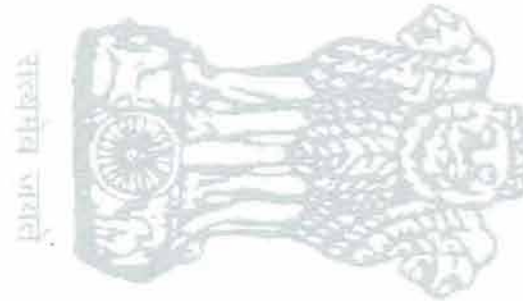


Form F17: Revenues from Regulated Services recovered during the Tariff Year (ref. Section A1.9 of Appendix D)

	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

भा.वि.आ.वि.पा.
AERA



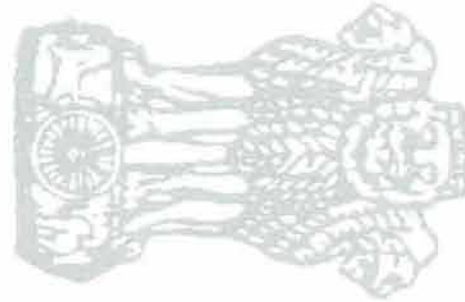
Form F18: Revenue from services other than Regulated Services recovered during the Tariff Year (ref: Section AI.9 of Appendix I)

	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

आ. वि. आ. वि. प्रा.
 AERA

संसदेन तयते

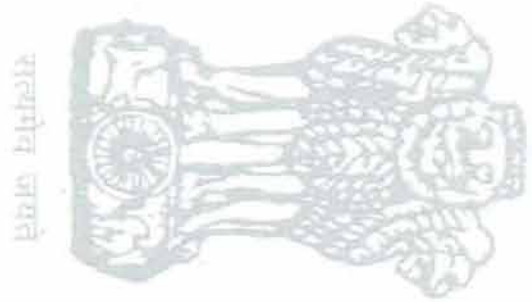


Form F19: Operating Expenditure incurred during the Tariff Year (ref: Section AI.9 of Appendix I)

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

Fields in italics are indicative only

आ. वि. आ. वि. प्रा.
AERA



Form F20: P&L Reconciliation Statement for the Tariff Year (ref: Section AI.9 of Appendix I)

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	Operating 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

² Applicable only for Service Provider deemed 'material' and 'non-competitive'



Form F21: RAB Reconciliation Statement (ref: Section AI.9 of Appendix I)

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

* Applicable only for Service Provider deemed 'material' and 'non-competitive'

आ. वि. आ. वि. प्रा.
AERA

सिंह

