

F. No. T-14012/1/2012 – Tariff
Airports Economic Regulatory Authority of India

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

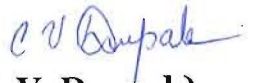
Dated the 4th September, 2014

Public Notice No. 9/2014-15

**Subject: - Clarifications sought by BIAL in respect of AERA's Consultation
Paper No. 05/2014-15 dated 12.06.2014**

Attention of all concerned is invited to Consultation Paper No. 05/2014-15 dated 12.06.2014, issued by the Authority "In the matter of Normative Approach to Building Blocks in Economic Regulation of Major Airports" vide which the Authority had sought comments from the stakeholders. The last date for submission of comments was 07.07.2014, which was subsequently extended upto 08.09.2014 vide Public Notice No. 04/2014-15 dated 04.07.2014 and then further upto 09.10.2014, vide Public Notice No. 08/2014-15 dated 01.09.2014.

2. Bangalore International Airport Limited (BIAL) vide letter dated 06.08.2014 had sought certain clarifications and details in respect of the above mentioned consultation paper. The various issues have been considered and duly responded by the Authority.
3. The letter of BIAL dated 06.08.2014 and Authority's response vide letter dated 03.09.2014 are attached herewith for information of all concerned.


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Ref: AERA/Finance/2014-15/03

August 6th, 2014

**The Secretary
Airports Economic Regulatory Authority of India
AERA Building, Administrative Complex,
Safdarjung Airport,
New Delhi - 110 003**

Dear Sir,

Subject: AERA's CP on 'In the matter of Normative Approach to Building Blocks in Economic Regulation of Major Airports' – Certain clarifications & details required

Ref: CP No 05 / 2-14-15

Kindly refer above subject and we are in the need of certain details and clarifications on certain topics of Consultation Paper as enclosed herewith as separate annexure. We hereby request the Authority to kindly provide the requested details which enables us to provide BIAL inputs on the subject CP.

Thanking you.

Yours faithfully,

For Bangalore International Airport Limited

A handwritten signature in black ink, appearing to read "B. Bhaskar".

**B. Bhaskar
Sr. Director Finance and Support Services**

Encl: a/a

Annexure:

**BIAL queries on Consultation paper for "Normative Approach to Building Block"
issued by AERA on 12th June 2014.**

Proposal No 5: Regarding norms for capital costs:

Proposal No 5a: The Authority expects that while finalizing the scope of future capital works the Airport Operator would abide by the indicated norms. As illustration,

i. IMG Norms for Terminal Building (for eg, 25 sq. mts per passenger for integrated Terminal Building)

BIAL Queries:

IATA Airport Design Reference Manual (ADRM) provides definite planning guidelines for designing a Terminal for IATA level of Service C taking into account, characteristics and volume of passengers and baggage, safe and secure environment needs, design flexibility and cost effectiveness.

IATA which primarily represents airlines recognizes that terminal capacity and designing with level of service in mind are key requirements in development of competitive airports, and have long term financial and operational implications for passenger facilities. IATA however does not propose a standard design or "one size fits all" approach.

IATA ADRM recommends formulae's which express equilibrium between supply, demand and level of service for quick assessments. These formulae's consider passenger profile, peak hour demand, processing times, aircraft type, queuing time, security need, passenger convenience, etc. as these are unique for each airport.

The ADRM 9th edition, section C 1.9.1 based on above methodology states that pure Domestic Terminals need maximum 25sqm/php and the average floor area/passenger is 45sqm/php base on airports built all over the world.

Authority has proposed use of IMG norm which suggests 25sqm/php for an integrated terminal for same IATA level of service C, we thus request Authority to provide us the following information for our study:

- 1) IMG method of Peak hour passenger calculations for an integrated terminal and an example of Integrated Terminal designed on basis of 25sqm/php for IATA level of service C.
- 2) Regulations/standards considered for fire life safety, energy efficiency standards, facilities for differently able passengers, etc. under the IMG norm of 25sqm/php.
- 3) Percentage of area allocated for offices of police, customs, immigration, income tax, reserved lounge, airlines, toilets, passenger facilities in a Terminal with 25sqm/php. Does 25sqm/php norm include all these offices or are non-passenger areas excluded from 25sqm/php.
- 4) Authority has in Table 5 of AERA CP no. 5;page no. 22 provided the cost comparison for the newly completed/ongoing projects across India. Authority is requested to share the Annual design capacity and the Departure & Arrival peak hour capacity (for DOM & INT) of all these terminals, as the information in public domain is imprecise for assessment.

Proposal 5b: The Authority proposes to consider capital costs of terminal building at a ceiling cost of Rs. 65,000 per square meter or actual whichever is lower.

BIAL Queries:

Authority while comparing the cost for passenger terminal development at major Indian airports has considered cost of proposed Cochin terminal development as Rs.43,333/Sqm.

We understand that the Cochin Terminal construction has just commenced and so far only the contract for structures has been awarded to the contractor. We also understand that this is an item rate contract and not lump sum.

Under these circumstances, we request Authority to share how it has determined Cochin terminal will be completed within Rs. 43,333/Sqm when all other airports in Indian including AAI many new terminals have been constructed at an average cost of Rs. 1,10,000/Sqm.

1) We request below details for Cochin Terminal Development:

- Cost break up of Rs. 650 Crores for the main components of Terminal building cost i.e. Shell and core, Roofing, MEP & IT, Airport Systems & Interiors (furniture & fixtures).
- We understand that RCC Structure package^y is awarded for Rs. 305 crores which is almost 50% of the overall estimated cost. In our experience the structure cost component is 25-30% of the overall cost of building and hence we request details of other packages firmed up for Cochin Airport and their estimated budget.
We understand that Rs. 650 crores is the estimated cost of the project and request authority to share the contingency and escalation cost details considered by the developer. Please also share the component of Design & PMC cost in the Rs. 650 crores.

Further the Authority has in the table 5 for Terminal cost assessment, benchmarked costs of Terminal developments including canopy projections, airport systems, ICT, furniture and fixtures etc. However we note that the cost of Kolkata Airport in the Table 5, page 24 of the CP no 5, is considered without the above mentioned components.

2) We thus request Authority to please share details of Kolkata Airport as below for clarity:

- Kindly confirm if the area specified in the table includes an existing Domestic terminal of 26000 sqm and what are the changes done in existing Domestic Terminal to retain it as part of the new Integrated Terminal.
- Authority in CP no 5 mentions cost of Kolkata new integrated terminal as Rs. 1553 crores. While CP no 17 – MYTP of NSCBIA (Kolkata) page 123, mentions cost of new integrated terminal building is Rs. 2325 crores (inclusive of interior works, airport systems, signage's, Design & PMC etc.). Please clarify the anomaly and the cost appropriate for benchmark with BIAL.

3) Authority has acknowledged that capital expenditure depends on scope, engineering and specifications of project. These aspects impact the quality of a Terminal building and thus "Qualitative and Quantitative" assessment together is crucial for benchmarking purposes. We thus request authority to advice on quality benchmarks for above defined ceiling cost norm of Rs. 65000/Sqm.

Proposal No 5c: The Authority proposes to consider capital costs of Runway/Taxiway/ Apron at a ceiling cost of Rs. 7,000 per square meter or actual whichever is lower (excluding earthwork upto the sub grade level). The expenditure on the earthwork will be carried out as per the CPWD methodology.

In order to understand this norms use we request^s the Authority to share below details:

- 1) Pavement section and the specifications used in the basis of calculations of above norm and maintenance cost considered by Authority for the same. Specification for traffic parameters, soil condition, critical design aircraft and design life considered are requested as these are not available in the shared documents.
- 2) Authority is also requested to clarify the component of Design & PMC cost, Foreign exchange rate, currency variation etc. considered in ceiling cost of Rs. 65,000/Sqm for terminal and Rs. 7000/Sqm for pavements.

File No. AERA/20010/PolicyMatter/2010-11/
Airports Economic Regulatory Authority of India

AERA Building,
Administrative Complex,
Safdarjung Airport,
New Delhi – 110 003.

Dated the 3rd September, 2014.

To

Shri B. Bhaskar,
Sr. Director – Finance & Support Services,
Bangalore International Airport Limited
Alpha – 2,
Bengaluru International Airport,
Devanahalli,
Bangalore – 560 300.

Sub: - Certain clarification and details asked by BIAL in respect of AERA's Consultation Paper No.05/2014-15 dated 12th June, 2014 "In the matter of Normative Approach to Building Blocks in Economic Regulation of Major Airport" – reg.

Sir,

I am directed to refer to your letter dated 06.08.2014 on the above cited subject and to state that the comments of Authority on the various issues raised vide your aforesaid letter are given as under:

I. BIAL has raised the following queries on Proposal No. 5 (a) regarding norms for capital costs:

- 1) *IMG method of Peak hour passenger calculations for an integrated terminal and an example of Integrated Terminal designed on basis of 25sq/php for IATA level of service C.*
- 2) *Regulations/ standards considered for fire life safety, energy efficiency standards, facilities for differently able passengers, etc. under the IMG Norm of 25sqm/php.*
- 3) *Percentage of area allocated for offices of police, customs, immigration, income tax, reserved lounge, airlines, toilets, passenger facilities in a Terminal with 25sqm/php. Does 25sqm/php norm include all these offices or are non-passenger areas excluded from 25sqm/php.*
- 4) *Authority has in Table 5 of AERA CP no. 5; page no, 22 provided the cost comparison for the newly completed/ongoing projects across India. Authority is requested to share the Annual design capacity and the Departure & Arrival peak hour capacity (for DOM & INT) of all these terminals, as the information in public domain is imprecise for assessment.*

Authority's response:

While indicating the norms for the capital cost, including the design capacity of the terminal buildings, in the Consultation Paper, the Authority has relied on the Inter Ministerial Group's report on "Norms and Standards for Capacity of Airport Terminals" published by the Planning Commission. The IMG has specified norms of Sq. mtrs. per passengers based on expected level of service (the categorization is from A to E). The norm given for 'C' level of service has been indicated as 25 Sq. mtrs per passenger for integrated (both domestic and international) terminal building. The Authority has also noted that the IMG report recommends that "Value for money should be the motto". Considering that the Airport Operator's concern to implement "International standards" is reflected in the IMG norms, the Authority had proposed that these norms should be adopted for the purposes of space design of new terminal buildings. The Authority is of the opinion that the details of the calculation made by the IMG to arrive at the 25 Sq. mtrs per passenger for integrated (both domestic and international) terminal building is not material as the IMG has recommended the overall area norm for planning purpose. The Authority is of the opinion that this overall area norms, recommended by the IMG include the requirements of all facilities and services of the Terminal Building including upto 20% of Terminal area for Commercial services in case of big Airports. The Airport Operator is expected to plan the Terminal Building capacity requirements taking into consideration all the requirements of passenger facilitations, functionality and safety.

A far as the BIAL's request for design details of airports mentioned in Table 5 of the Consultation Paper is concerned, it may be noted that these details are available in the different tariff determination orders and consultation papers of respective Airport issued by AERA. The relevant information can also be accessed at the Authority's website www.aera.gov.in. In case BIAL still needs any additional information, concerned airport may be approached directly.

II. BIAL has raised the following queries on Proposal 5 (b) regarding the Authority's proposal to consider capital costs of terminal building at a ceiling cost of Rs. 65,000 per square meter or actual, whichever is lower:

- 1) *Authority while comparing the cost for passenger terminal development at major Indian airports has considered cost of proposed Cochin terminal development as Rs.43,333/Sqm.*
- 2) *We understand that the Cochin Terminal construction has just commenced and so far only the contract for structures has been awarded to the contractor. We also understand that this is an item rate contract and not lump sum.*
- 3) *Under these circumstances, we request Authority to share how it has determined Cochin terminal will be completed within Rs. 43,333/Sqm when all other airports in India including AAI many new terminals have been constructed at an average cost of Rs. 1,10,000/Sqm.*
- 4) In addition BIAL has also sought various cost details in respect of Cochin Terminal Development and Kolkata Airport as referred to by Authority in the Consultation Paper.

III. BIAL's has raised the following queries on Proposal 5 (c) regarding the Authority's proposal to consider capital costs of Runway/ Taxiway Apron at a ceiling cost of Rs. 7,000 per square meter or actual, whichever is lower (excluding earthwork upto the sub grade level) and the expenditure on the earthwork to be carried out as per CPWD methodology:

- 1) *Pavement section and the specifications used in the basis of calculations of above norm and maintenance cost considered by Authority for the same, Specification for traffic parameters, soil condition, critical design aircraft and design life considered are requested as these are not available² in the shared documents.*
- 2) *Authority is also requested to clarify the component of Design & PMC cost, Foreign exchange rate, currency variation etc. considered in ceiling cost of Rs. 65,000/Sqm for terminal and Rs. 7000/Sqm for pavements.*

Authority's response:

Authority has already indicated its procedure for assessing the capital expenditure in terms of need, scope, alternatives etc., as well as stakeholders' consultation, in its Airport Guidelines. Further, BIAL's attention is drawn to Para 7 of the Consultation Paper, where the Authority has indicated the basis of cost estimation to be adopted by Airport operators on finalization of their design. The operator is expected to estimate/ arrive at the project cost as per publically available standard for various schedules of items, including items to be procured from the market.

The Authority has in the Consultation Paper noted that the cost of the terminal buildings in different cases may incorporate different scope with respect to items like flyover, roads, car park etc. Therefore, based on the past experience of the Authority in determining the tariffs for various airports in the country, Table 5 of the Consultation Paper has been drawn up to indicate the range of the cost per sq. mts. The Authority also understands that the cost of terminal building so indicated in Table 5 of the Consultation Paper may have been arrived at for varying sets of components for each airport. For instance in certain airport the cost of canopy over the pick-up/ drop-off area may have been included in the cost of the terminal building, whereas in other cases it may have not been included.

The Authority is aware of the fact that the Terminal Building of Cochin Airport is under construction, and the actual cost will be known at appropriate time after award of all packages/ completion of work. However, CIAL has indicated a tentative cost for the completion of the proposed Terminal Building along with its MYTP submissions for the current control period, which has already been uploaded on the Authority's website. The Authority expects CIAL to complete the Terminal Building at the cost indicated by them.

AERA Act in para 13(2) prescribe the requirement of Public interest to be kept in focus while determination of tariff. Hence Authority is expected to adopt bottom up approach in allowing the cost under RAB, and subjecting it to a defined ceiling for each components. On balance, the Authority has felt that since the indicated ceiling cost Rs.65000 per sq. mts. as proposed in the Consultation Paper is much higher than 43,333/per sq. mts. indicated by CIAL for the new terminal building of Cochin Airport, it allows adequate flexibility for any variation in planning and design parameter, and subsequently the completion cost of the terminal building of Cochin Airport. The Authority therefore does not feel that there is any justification in waiting for finalization of the completion cost of the new Terminal of Cochin

Airport, to arrive at a reasonable benchmark cost of the terminal building as per the inclusion and exclusions indicated in Para 7.10 of the Consultation Paper. While indicating the pavement ceiling cost of Rs. 7000/ per sq. mts for Runway and Apron, the Authority has considered the critical Aircraft to be of F – type.

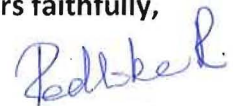
The Authority further feels that the publically available CPWD rates are fairly robust and it helps in arriving at a reasonable cost of construction.

Moreover, the cost comparison with other airport Terminal (example Kolkata) is not relevant, as Cochin is the Latest International Building under construction, and its cost can be more relevant to indicate the current efficient rates.

The Authority feels that the final completion cost is more relevant than the method used to achieve it (item rate contract, or lump sum, PMC, etc.). The Authority expects the airport operators to follow most economical and efficient path for minimizing the cost, so as to justify the public purpose, which is of paramount importance. The Authority believes that greater responsibility of lowering the cost lies with those airport operators, who have been entrusted with PPP – Airport projects, as one of the primary motive for privatization of airports has been lowering of costs. In case lower costs are not achieved, the entire premise of privatization falls flat as it would have failed to achieve the objective of lower costs.

In case BIAL still needs any further information on the cost of CIAL or other AAI airports, its inclusion and exclusions, etc., it is advised to approach CIAL or AAI, as the case may be, for details, as deemed necessary.

Yours faithfully,



(Radhika. R)

Jt.GM

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