GHIAL Response to Consultation Paper No.05/2014-15

In the matter of Normative Approach to Building Blocks in Economic Regulation of Major Airports

Issued on 12th June, 2014

Response by

GMR Hyderabad International Airport Limited

Contents

I. LEGAL DISCLAIMER

The submissions made and views expressed in the present response shall not be construed as our acceptance or agreement to the normative approach proposed by AERA in the Consultation Paper 05 of 2014-15 and our submissions & views expressed herein are without prejudice to the rights and concessions granted to GHIAL under the Project Agreements including the Concession Agreement, State Support Agreement & Land Lease Agreement executed by the Government of India and State Government respectively.

II. INTRODUCTION

The Airports Economic Regulatory Authority of India (AERA or 'Authority') issued a Consultation Paper No. 05/2014-15 In the matter of Normative Approach to Building Blocks in Economic Regulation of Major Airports.

We welcome the steps taken by the Authority to develop the proposed normative guidelines in an inclusive manner by inviting comments and suggestions from existing Airport Operators.

However, we would like to bring to your notice and place on record that applicability of this normative approach will have various ramifications on the contractual rights / obligations of existing PPP airport projects. In view of this, while submitting our comments, we request the Authority to first clarify whether this normative approach is applicable to prospective PPP projects only or applicable to the existing PPP airports also.

Pending the above clarification, we hereby present our comments in the following sections. Each section begins with a discussion on an aspect of the Authority's proposal w.r.t. normative guidelines, and ends with (i) GHIAL's position on the proposal with respect to existing PPP airports, and (ii) with GHIAL's position and observations on the proposal and/or policy with respect to the airport sector and effect on newer concessions in general.

We earnestly request the Authority to take our submissions under consideration during the formulation and development of the proposed guidelines.

III. NORMS FOR AIRPORTS NEED TO BE SPECIFIED AT TIME OF PRIVATIZATION

The use of normative guidelines by AERA in place of detailed examination of individual aspects of airport performance, is a major change in regulation which was not foreseen when the first round of airport privatization took place, and alters the economic balance of the concessions granted to GHIAL and other existing Private Airport Operators.

The IMG report as referred by the Authority states:

> ***"Airports developed through Public Private Partnerships***
> *In the case of airports developed through Public Private Partnerships, the project authorities may adopt a case by case approach with respect to norms relating to unit area and unit costs. Based on the judicious consideration of international best practices and financial viability, the* ***norms may be specified in each case prior to inviting bids for private participation."*** (Emphasis added)

GHIAL POSITION ON APPLICABILITY OF NORMATIVE GUIDELINES ON EXISTING AIRPORTS:

The Concession Agreement signed with Government of India through the Ministry of Civil Aviation, the State Support Agreement and the Land Lease Agreement signed with Government of Andhra Pradesh by GHIAL, collectively constitute the 'concession' granted to GHIAL and are binding on all stakeholders; the integrity and sanctity of these contracts has to be maintained. Regulatory powers therefore have to be exercised in a manner which shall take into account and are consistent with the contractual rights vested in GHIAL under the said agreements.

Since the proposed norms under the present normative approach were not prescribed at time of privatization of Hyderabad Airport (GHIAL), they are not applicable to us. The Authority must carry out an assessment of each of the individual regulatory blocks, as is being assessed presently.

GHIAL POSITION ON APPLICABILITY OF NORMATIVE GUIDELINES ON FUTURE AIRPORTS:

If the new normative guidelines are intended to be applied to tariff calculations, the same may be applied prospectively to new/future airports only and should not be applied to existing privatized airports.

Any guidelines and benchmarks to be followed by future airport developers should be captured within the Concession Agreement and other Legal Documents forming part of the Project Documentation.

The legal framework thus formed must be honoured for the entire duration of concession period.

IV. IMG NORMS ARE NOT APPLICABLE TO PPP AIRPORTS

The following is the preface to the IMG report:

> The norms and standards specified in the Report of the IMG are expected to serve as a guideline for formulation and implementation of projects by AAI with a view to ensuring a judicious use of resources as also to ensure that airports of different categories follow uniform norms and standards across the country and are built to world-class standards.
>
> (Gajendra Haldea)
> Adviser to Deputy Chairman
> Planning Commission
>
> April 20, 2009

The norms and standards specified in the Report of the IMG are expected to serve as a guideline for formulation and implementation of projects by AAI with a view to ensuring a judicious use of resources as also to ensure that airports of different categories follow uniform norms and standards across the AAI managed airports in the country and are built to world-class standards.

Source: http://www.infrastructure.gov.in/pdf/FinalAirport_Terminal.pdf

GHIAL POSITION ON NORMATIVE GUIDELINES FOR EXISTING AIRPORTS:

Since the proposed norms were not prescribed at time of privatization, they are not applicable to existing PPP airports.

GHIAL POSITION ON NORMATIVE GUIDELINES FOR FUTURE AIRPORTS:

As noted by the Planning Commission, the standards mentioned in the IMG report are not applicable to PPP Airports. The report should not be applied as benchmarks for existing privatized airports.

V. NO PRECEDENT OF NORMATIVE TARIFF CALCULATION FOR THE AIRPORT INDUSTRY

As the Authority itself acknowledged in the Consultation Paper, airports are diverse entities with a wide range of factors determining their performance.

Existing airports should be viewed as ecosystems of several economic activities hosted in a single facility (i.e. cargo handling, ground handling, hospitality, food, retail, entertainment, etc. at the airport premises), as opposed to other fixed asset-based utilities such as power, highways, ports where the entire facility is dedicated to a specific economic activity such as road transport, generation of power or cargo handling. Therefore airports are closer to diversified industries than to other utilities in risk profile.

Airport infrastructure varies amongst airports and, as such, cannot be compared. Mentioned below are some differentiating factors at various airports:

Technical Factors	***Non-Technical Factors***
Airside and Geographical Specifications • *Soil Condition (CBR)* • *Aircraft loading considered for Pavement design* • *AGL Category* • *AGL implemented at One end or Both ends of Runway* ***Terminal Building Specifications*** • *Check-in counters (Self Check-in/Regular Check-in)* • *Length of approach road (excluding Elevated road)* • *Length of Elevated approach road* • *Number of levels at terminal building* • *Numbers of basements at terminal* • *Area of Glass façade (including type of Iglass)* • *Type of Roofing and number of insulation layers in roof sheetingSpecial transport connectivity (e.g. Metro)* • *Immigration counters* • *Seating Capacity* • *Area of Ceremonial Lounge* • *Area of Forecourt* • *Dropping lanes* • *Pick up lanes* • *Number of In Contact Stands* • *Number and type of Passenger boarding bridges* • *Number of Remote Stands* • *Seismic Zone considered in the design* ***Plant and Machinery Specifications*** • *Capacity of Chiller Facility/Cooling Facility*	***Passenger Profile*** • *Domestic* • *International* • *Transfer* ***Airport Traffic Profile*** • *Regional Hub* • *National Hub* • *International Hub* • *Transfer Pax vs Embarking/Arriving Pax* • *Passenger vs Cargo* ***Services provided at the Airport*** • *Internet/Wifi Accesss* • *Communication* • *Lounges* • *Recreational Activities* • *Cargo Handling* • *Ground Handling* • *Fuel Supply* ***Commercial Activities at the Airport*** • *Entertainment* • *Restaurants / Eateries* • *Retail Outlets* • *Personal Care* • *Banking / Forex* • *Taxi / Bus Services*

• *Capacity of DG Set installed (for Stand-by use)* • *Capacity of Transformer installed* • *Boggage Handling Capacity* • *Level of In line baggage X-Rays Screening* • *Capacity of Water Treatment and Sewage Treatment Plants* • *Travellator (Length and Numbers)* • *Escalator (Nos.)* • *Elevators (Nos.)*	

The above mentioned factors are indicative but not exhaustive which will make the airport operation a complex business, and very different from other utility businesses. There is no single model which accounts and adjusts for these differences with the precision required to set norms. It would be wrong to use a 'one size fits all' approach in case of Airports. The rapidly changing nature of the Indian airport industry would mean that industry-wide benchmarks, as proposed by the Authority, would not hold true over time.

REVIEW OF INTERNATIONAL PRACTICES:

Internationally, no regulator has fixed industry-wide benchmarks for tariff calculation in the manner proposed by Authority. The only norm prevalent is related to Debt-Equity ratio, which is used by regulators in UK, Australia and New Zealand. In these cases, the normative ratios adopted are specific to the individual airports and not applicable to the entire industry.

In UK, Heathrow Gatwick and Stansted airports have the following Debt: Equity ratios:

Airport	Notional Gearing
Heathrow	60%
Gatwick	55%
Stansted	50%

Heathrow, Gatwick and Stansted – the three airports serving London and the South East of the UK, were given a different notional debt: equity ratios by PWC (acting as advisors to CAA). These notional gearing ratios were subsequently adopted by the UK CAA. The capital structure of these airports was intended to be consistent with investment grade ratings for debt at a level A-/BBB+.

The assigned ratio for these airports changes in each control period and is not static:

Airport	Notional Gearing for Q5	Notional Gearing for Q6
Heathrow	60%	60%
Gatwick	60%	55%
Stansted	50%	50%

REVIEW OF ICAO GUIDELINES REGARDING TARIFF DETERMINATION:

The tariff fixation methodology as stated in Clause 10.2.1 of the Concession Agreement dated 20.12.2004 provides for the application of ICAO policies for determination of airport charges at GHIAL.

It is to be noted that ICAO prescribes the usage of a case-by-case approach, in contrast to the present method proposed by the Authority. In Section-II of the ICAO Doc 9082 9th edition, it is clearly stated:

"Consistent with the form of economic oversight adopted, ***States should assess, on a case-by-case basis and according to local or national circumstances, the positive and negative effects of differential charges applied by airports****. States should ensure that the purpose, creation and criteria for differential charges are transparent."*

GHIAL POSITION ON USAGE OF NORMATIVE GUIDELINES FOR EXISTING PPP AIRPORTS:

In case of existing PPP airports, our request to the Authority is that annual revenue requirements and tariffs calculations should be based on actual performance factors rather than on a normative basis which is being proposed through this Consultation Paper.

GHIAL POSITION ON USAGE OF NORMATIVE GUIDELINES FOR FUTURE AIRPORTS:

Internationally, the practice is to set benchmarks for airports on an individual, case-to-case basis. This practice is supported by ICAO in the 9th edition of Document 9082.

In case the Authority intends to apply normative guidelines for future PPP airports, such guidelines must be fixed only after an exhaustive statistical study of existing airports and only for comparable parameters which may be easily benchmarked without bringing in distortions in tariff calculations.

VI. PROPOSAL 1: REGARDING DEBT EQUITY RATIO AND WACC

DEBT EQUITY RATIO: AUTHORITY'S VIEW

a) The Authority proposes to follow a normative debt to equity ratio of 70:30 for the purposes of calculation of Weighted Average Cost of Capital with 30% equity regarded as ceiling and true up WACC at the end of the control period depending on the actual proportion of equity (net worth) in the capital structure (based on the balance sheet numbers from year to year).

b) The Authority notes that in this approach, truing up is required for
(i) Debt Equity ratio, and
(ii) Cost of debt.

DEBT EQUITY RATIO - AGAINST THE PROJECT AGREEMENT

There was no norm of debt Equity ratio prescribed at time of concession and as such it is not applicable to GHIAL.

The Shareholder's agreement of GHIAL (point no. 3.2) provides as under:

> ***3.2 Capital Structure***
> *"The capital structure and debt to equity ratio of HIAL shall be as decided by the Board from time to time after taking into consideration prudent financial norms and the requirements of business of HIAL."*

Conclusion:

The concession agreement as such leaves it to board to decide on the Debt Equity structure. The norm, if implemented by Authority will mean violation of the project agreement. This in turn will mean that the entire concession needs to be revisited leading to instability in the sector. Under AERA act Authority should abide by the concession agreement. As such no norms should be made applicable to GHIAL.

DEBT EQUITY RATIO OF EXISTING INDIAN AIRPORTS

Airport Authority of India is the market leader in India operating the maximum number of airports. AAI is governed by the Indian government, and operates at the following Debt Equity ratio:

In INR lakhs	FY2012-13	FY2011-12
Secured loans	51,500.00	81,500.00
Unsecured loans	1,41,218.98	132723.25
Total Loans	**192,718.98**	**214,223.25**
Capital	65,655.65	65,655.65
Reserves & Surplus	817,458.78	761,043.71
Total Equity	**833,114.43**	**826,699.36**
Debt to Equity Ratio	**0.22**	**0.26**

Source: AAI Reported Financials of FY 2012-13

The norms of the Authority are off the mark when compared to AAI which is owned and governed by the Indian Government. **AAI has a debt equity ratio of 0.22-0.26 compared to Authority's proposal of 2.33.**

REVIEW OF THE DEBT EQUITY RATIO PREVALENT IN THE INDIAN AIRPORT SECTOR:

The Debt Equity ratio computed by Authority in Table 24 of its Order No. 3/2012-13 dated 20th April 2012 for various Indian Airports is as follows:

S.No.	Airport	Debt Equity Ratio
1.	Delhi*	2.11
2.	Mumbai	1.32
3.	Bangalore	4.21
4.	Hyderabad	6.29
5.	Cochin	0.80
6.	Calicut	0.00
7.	Chennai	0.17
8.	Trivandrum	0.00
9.	Jaipur	0.00
10.	Lucknow	0.00
11.	Ahmedabad	0.00
12.	Kolkata	0.05
13.	Guwahati	0.00
	Overall Average	**1.17**

*Refundable Security Deposits are not included

OPERATORS' ABILITY TO FINANCE THEIR PROJECTS:

Another factor to be considered would be the ability of the airport operator to raise higher debt. By adopting a 70:30 norm, AERA wants equity to be lower on the assumption that cost of equity in calculation of WACC is higher than that of debt and thus needs to be "rationed". In doing this, AERA is making a fundamental error in assuming that all airports can be equally funded through higher debt.

GHIAL POSITION ON USAGE OF NORMATIVE D-E RATIO FOR EXISTING PPP AIRPORTS:

Existing PPP Airport Operators have arrived at a certain capital structure in consonance with the factors which are specific to their airports, and this capital structure is aligned to their respective project agreements.

The Authority should further take note that GHIAL and other Operators have leveraged their projects to the best of their ability, thereby ensuring that the Authority does not have to guarantee returns on unreasonable levels of equity.

We therefore submit to the Authority that restrictive debt-equity benchmarks should not be applied to existing PPP airports. This position is in line with the extant legal framework.

GHIAL POSITION ON USAGE OF NORMATIVE D-E RATIO FOR FUTURE AIRPORTS:

The comparator set above gives a fair picture of the capital structures of Indian airports. However from the data provided, it is difficult to fix a debt-equity ratio with any significant degree of certainty.

It can be noted that the airport operators have significantly leveraged their projects and have not placed unjustified demands for returns on invested equity. This is necessarily shaped by market forces, due to the limited funds available to Promoters to distribute across several projects.

We are therefore of the view that a normative Debt-Equity ratio may not be necessary in case of future airports.

NIPFP – APPOINTED BY AUTHORITY FOR COE IS AGAINST NORMATIVE DEBT EQUITY NORM

NIPFP is of the view that there should not be a normative debt equity ratio. The following is the extract of its comments (Source : Summary of the comments and suggestions received on Approach Paper on Terms and Conditions of Tariff Regulations for the tariff period 1.4.2014 to 31.3.2019 (Ref No. 20/2013/CERC/Fin(Vol-I)/Tariff Reg/CERC Date: 25th June'2013).

F) Other Organizations/Institutions/Banks/Investors		
F.1	National Institute of Public Finance and Policy (NIPFP)	Ideally, actual DER should be considered in such decisions. Each project is unique and the level of leverage is carries should be determined by the markets. In the same sector, there are different levels of leverage that are optimal for different projects. A regulator determining a normative DER creates distortions in the market. But, in the present context, there are problems in using the actual DER. The actual DER can be gamed quite easily, and the market value of equity is not available for many unlisted firms. The Commission should publish a white paper on this issue. The existing approach may be continued in the upcoming cycle, but the Commission should be cognizant of the consequences of taking normative DER, and create a road map for a move towards using the actual DER.

Source: http://www.cercind.gov.in/2013/regulation/Comments/DebtEquity_Ratio.pdf

From above this is clear that NIPFP (appointed by Authority for the cost of equity calculations) is also of view that there should be no normative norms.

GHIAL POSITION ON DEBT EQUITY RATIO FOR PRESENT AND FUTURE AIRPORTS:

The NIPFP report specifically states that *"A regulator determining a normative DER creates distortions in the market"*. **Therefore it is earnestly requested that such a normative Debt Equity ratio should not be framed for the Indian Airport sector.**

DEBT EQUITY RATIO USED IN DETERMINATION OF COST OF EQUITY BY THE AUTHORITY

The Authority in its various orders and consultation papers issued as of today had either used or has prescribed the following normative Debt to Equity ratio for calculation of cost of equity at various airports in India:

Airport	AERA Order No./Consultation Paper No.	Para No.	Debt Equity Ratio
Bengaluru Airport	08/2014-15 Dated 10th Jun 2014	14.26	60:40
Delhi Airport	03/2012-13 Dated 20th Apr 2014	26.80	60:40
Guwahati Airport	34/2013-14 Dated 18th Nov 2014	15.3	60:40
Hyderabad Airport	38/2013-14 Dated 24th Feb 2014	13.41	60:40
Mumbai Airport	32/2012-13 Dated 15th Jan 2013	13.39	60:40
Lucknow Airport	CP No. 01/2014-15 Dated 21st Apr 2014	16.11	60:40
Kolkata Airport	35/2012-12 Dated 23rd Jan 2013	12.20	60:40

Source: www.aera.gov.in

GHIAL POSITION ON USAGE OF NORMATIVE D-E RATIO FOR EXISTING PPP AIRPORTS:

The Authority in its previous orders and consultation papers has used a fixed Debt-Equity ratio of 1.5:1 (to finalize a Cost of Equity of 16%). However, the Authority uses the actual Debt-Equity ratio in all other tariff calculations.

In the interest of consistency in the calculation method, the Authority should use actual debt-equity ratio of the individual airports.

GHIAL POSITION ON USAGE OF NORMATIVE D-E RATIO FOR FUTURE AIRPORTS:

The Authority in its previous orders and consultation papers has used a fixed Debt-Equity ratio of 3:2 (to finalize a Cost of Equity of 16%). The current proposal of 2.33:1 DER will necessitate a revisit of the cost of equity calculations.

In case Authority intends this norm to be applied to future airports, the Cost of Equity may be revised upwards accordingly. The effect of this change in debt-equity ratio on Cost of Equity is discussed in a later section.

DEBT-EQUITY RATIO USED IN VARIOUS CONSULTATIONS FOR CALCULATION OF COST OF EQUITY

Several expert consultants hired by various industry and government bodies have used the following debt to equity ratios for calculation of Cost of Equity in their respective reports:

Consultant	Reported to	Debt Equity Ratio
Leigh Fisher	DIAL	1.33
SBI Caps	AAI for MoCA	1.50
NIPFP	AERA	1.20

SBI Capital Markets in their report on Fair Rate of Return on Equity for Indian Airport Sector stated:

"Average DER of listed oirport in emerging markets in the Data Set over a period of 5 years is estimated at 0.47:1. However, the same may not reflect the target DER for India, as infrastructure projects in India are generally financed at a much higher DER. In this context a comparable could

be brought out by taking into account the fact that a notional DER of 1.50:1 has been considered by regulators of Sydney airport and Heathrow airport for determination of cost of equity.

In the Indian context, project financing is happening normally in the range of 1:1 to 2:1 taking into account various risk associated with the project, sector, sponsor, and finoncing structure with inclusions of instruments other than pure debt or equity. Considering the nature of investments and risk profile of airport sector a target DER of 1.5:1 has been assumed to arrive at the estimated Rate of Return on Equity for investment in Indian airport sector. Accordingly, the proxy Asset Beta of 0.71 for airports as arrived in earlier chapter is levered by DER of 1.5:1 to arrive at adjusted levered Beta (Adjusted Equity Beta) for Indian Airports at 1.43."

REVIEW OF AIRPORT COMPARATORS REFERRED BY AUTHORITY IN PRIOR COMMUNICATIONS

The Authority in its Order No. 3/2012-13 in the matter of Tariff determination at IGI Airport, New Delhi has stated following Debt Equity and Gearing for different airport comparator sets (Table 25):

S.No.	Various reports on Airport	Debt Equity Ratio	Remarks
1	NIPFP (mature + emerging countries)	0.47	Weighted Average
2	SBI Caps (mature + emerging countries)	0.60	Simple Average
3	SBI Caps (only emerging countries)	0.46	Simple Average
4	5BI Caps (only mature countries)	0.71	Simple Average
5	CAA Heathrow and Gatwick	1.50	Individual Airport
6	CAA Stansted	1.00	Individual Airport
7	Indian Airports (PPP+AAI)	1.17	Weighted Average
8	CC NZ 2010 Input Methodologies	0.20	
9	Indian Airports Private	1.97	Weighted Average
10	Indian Airports AAI	0.08	Weighted Average
11	SBI Caps recommendation for DIAL	1.50	Based on Infra projects in India

REVIEW OF DEBT-EQUITY RATIO OF INTERNATIONAL AIRPORTS

NIPFP in its calculation of cost of Equity has used the follwing airports. The Debt equity ratio of these airports is as under:

Airport	Country	D/E (b)
Aeroporto di Frenzie	Italy	0.28
Aeroporto de Paris	France	0.89
Airport Facilities Co. Ltd.	Japan	0.41
Airports of Thailand	Thailand	0.85
Auckland International Airport	New Zealand	0.52
Australian Infrastructure	Australia	0.05
Bejing Airport High Tech Park	China	1.20
Bejing Capital International Airport	Hong Kong	1.04
Derichebourg SA	France	3.08
Flughafen Wien AG	Austria	0.88
Flughafen Zurich	Switzerland	0.76
Frankfurt International Airport	Germany	1.34
Gemina SpA	Italy	0.87

Groupo Aeroportuario del Centro Norte	Mexico	0.11
Groupo Aeroportuario del Pacifico	Mexico	0.04
Groupo Aeroportuario del Sureste	Mexico	0.03
Guangzhaou Balyun International Airport	China	0.26
Infratil Limited	New Zealand	2.57
Japan Airport Terminal Company	Japan	0.50
Kobenhavns Lufthaven	Denmark	1.04
Korea Airport Service Co. Ltd	Korea	0.16
Malaysia Airport Holdings BHD	Malaysia	0.39
SAVE	Italy	0.35
Shanghai International Airport	China	0.22
Shenzhen Airport Co. Ltd.	China	0.05
Singapore Airport Trml Srvcs	Singapore	0.11
Sydney Airport	Australia	1.80
TAV Havalimanlari Holding	Turkey	3.17
Xiamen International AIR-A	China	0.01
Weighted Average		**0.38**

Source: http://aera.gov.in/writereaddata/consultation/258.pdf

As such the average debt equity ratio of the international airports is of 0.38 compared to 2.33 (70:30) as prescribed by the Authority.

GHIAL POSITION ON USAGE OF NORMATIVE D-E RATIO FOR EXISTING PPP AIRPORTS:

The Authority in its previous orders and consultation papers has used the actual debt-equity ratio for tariff calculations in case of existing airports. Changing this method directly affects the returns guaranteed to Airport Operators under the legal framework of the project agreements.

Therefore, the normative D-E ratio should not be applied to GHIAL and other existing PPP airports.

GHIAL POSITION ON USAGE OF NORMATIVE D-E RATIO FOR FUTURE AIRPORTS:

From the above it is evident that various consultants while arriving at Cost of Equity have used a Debt Equity based on certain international experience or actuals of the airport company.

Secondly, even after considering the comparator sets above, **it is difficult to fix a normative debt-equity ratio with any significant degree of statistical certainty.** Therefore it would be inappropriate to fix a norm which does not reflect the factual picture of the sector.

Further, the overall airport sector Debt-Equity ratio in India is way below the benchmark proposed by the Authority.

If this normative ratio is to be applied on future airports, the ratio should be calculated on a case-by-case basis for individual airports.

Normative Debt Equity ratio of various International Airport Regulators

REVIEW OF NORMATIVE GUIDELINES FOLLOWED BY UK REGULATOR

Civil Aviation Authority (CAA, UK) of United Kingdom in matter of Heathrow, Gatwick and Stansted airports of London City had appointed Price Waterhouse Coopers (PWC) for estimating the cost of capital in Q6 for the aforesaid airports. While determining the same PWC had adopted the following notional gearing:

Airport	Notional Gearing for Q5	Notional Gearing for Q6
Heathrow	60%	60%
Gatwick	60%	55%
Stansted	50%	50%

REVIEW OF NORMATIVE GUIDELINES FOLLOWED BY NEW ZEALAND REGULATOR

Commerce Commission of New Zealand in their Decision No. 709 for Input Methodologies applicable to specified airport services in December, 2010 has clearly specified the following in Para 5.2 :

"5.2 Fixed WACC parameters: (1) Leverage is 17%."

The same has been used by the Commerce Commission while determining Cost of Capital parameters for Auckland International Airport (Table F2 of Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport dated 31st July 2013) and Christchurch International Airport (Table F2 of Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport dated 15th Oct 2013).

It is to be noted that the ratio used by Commerce Commission is 0.17:1 compared to 2.33:1 adopted by Authority.

REVIEW OF NORMATIVE GUIDELINES FOLLOWED BY AUSTRALIA REGULATOR

Sydney Airport[1]

In line with other decisions made by the Commission the decision adopts a 60:40 debt to equity ratio (compared to 50:50 proposed by SACL).

[1]Source: http://registers.accc.gov.au/content/index.phtml/itemId/978120

The ratio adopted in Sydney Airport is 3:2 compared to 2.33:1, as proposed by the Authority.

GHIAL POSITION ON NORMATIVE DEBT-EQUITY RATIO FOR FUTURE AIRPORTS

From the above it is evident that:

(i) International regulators from UK, NZ and Australia calculate ratios on case by case basis for individual airports.

(ii) Authority's proposal on ratio is very aggressive compared to international regulators.

DEBT EQUITY RATIO: LACK OF CLARITY IN PROPOSAL OF DEBT EQUITY RATIO

TREATMENT OF OTHER PROJECT FUNDING SOURCES:

From the aforesaid proposal it is not clear how is Authority going to treat the various other sources of funding i.e. Interest Free Loans, Grants etc.

NET WORTH AND ASSOCIATED PENALTIES:

From the present Consultation Paper, it appears that the Authority will consider Accumulated Profits / (Losses) as part of Equity investment while computing the Debt-Equity ratio. Prima facie it seems to be a good proposal for Equity investors who are retaining their money in the business and getting return on the same, but if the Net Worth of the company is getting eroded due to low returns allowed by Authority it will work as a double whammy for the regulated entity.

GHIAL POSITION ON EFFECT OF PROPOSED TREATMENT OF NET WORTH ON EXISTING AIRPORT OPERATORS:

It is to be noted that the first ad hoc determination of UDF and tariffs left operators with negative values of retained earnings. The Authority did not allow these losses to be recovered on the plea that AERA was constituted only after the initial tariff orders and did not have jurisdiction over the same.

Further, as an implication to the order no. 38/2013-14 in the matter of Determination of Aeronautical Tariffs in respect of GHIAL for the first control period (01.04.2011- 31.03.2016), the airport will incur losses for the next two financial years. Huge losses in two consecutive years will erode the net worth of the company.

At the end of first control period, the equity component in the capital structure will almost become NIL. If we hypothetically apply the proposed treatment of net worth in this scenario, it effectively means that GHIAL would only get return on debt and no return on equity.

This is at odds with the spirit of the rate of fair return method, and will increase pressure on an Operator when it is under stress. This is in variance with the Authority's mandate to provide a framework to Airport Operators within which they can maintain *'economic and viable operation of the airport'*, and therefore proposed methodology of calculation of net worth for WACC calculation is incorrect and inconsistent and would be detrimental to the project which is already incurring losses due to its operating environment.

GHIAL POSITION ON EFFECT OF PROPOSED TREATMENT OF NET WORTH ON FUTURE AIRPORT OPERATORS:

The proposed treatment of Net Worth represents an inequitable approach chosen by the Authority. On one hand the proposed norms limit the returns on equity earned by the Airport Operator (through the cap on Debt Equity ratio), while on the other hand the Authority fixes no limits to the downside faced by the Operators on account of eroded Net Worth.

GHIAL therefore proposes that the Authority make its approach towards calculation of Debt-Equity ratio in the Consultation Paper consistent with its approach in previous Tariff Orders.

DEBT EQUITY RATIO: LEARNING FROM OTHER INDIAN SECTORIAL REGULATORS

AERA intends to draft the norm for Debt Equity ratio as observed in the other regulatory regimes in India. However, AERA must adopt a holistic approach and apply it judiciously keeping in mind that norms applicable in one sector may be totally irrelevant for another.

We have identified key learnings from other regulators to help AERA take a wholesome approach, discussed as below:

Sector	Debt Equity	Learning
Power	Central Electricity Regulatory Commission (CERC) in its Notification dated 21st Feb 2014 in matter of Electricity Tariff regulation for period starting Apr'2014 to Mar'2019 has prescribed the following Debt Equity ratio: ***Chapter 4 – Computation of Capital Cost and Capital Structure*** *"19. Debt-Equity Ratio:* *(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD.* *(3) In case of ... commercial operation prior to 1.4.2014, debt equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.* *(4) In case of ... commercial operation prior to 1.4.2014, but where debt equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt equity ratio based on actual information provided by the generating company or the transmissian licensee as the case may be."*	• Guidelines are reviewed on regular basis Normative Debt Equity ratio fixed only at start of operation, thereafter it based on actual ratio. • For facilities which achieved COD prior to the cut-off date, the actual Debt Equity ratio is applicable
Ports	Tariff Authority for Major Ports (TAMP) in its Notification dated 26th Feb 2008 in matter of Guidelines for Upfront tariff setting for PPP Projects at Major Port Trusts has stated following: ***Item No. 3.7 – Return on Capital Employed*** *"A fair return on capital employed will be allowed on the capital cost determined in terms of clause 3.4.1."* **TAMP also allows 16% ROCE (Return on capital employed)**	• No normative Debt Equity ratio is prescribed, instead overall return on investment is permitted • A ROCE of 16% is allowed by TAMP.
Oil & Gas	Petroleum and Natural Gas Regulatory Board (PNGRB) in its Notification dated 20th Nov 2008 in matter of Determination of Natural Gas Pipeline Tariff had stated following : ***Schedule - A Item No. 3 – Reasonable rate of return*** *"The rate of return on capital employed shall be ..."*	• No normative Debt Equity ratio is prescribed, instead overall return on investment is permitted

Source: www. cercind.gov.in, www.tariffauthority.gov.in, www.pngrb.gov.in/newsite/

REVIEW OF NORMATIVE GUIDELINES IN THE POWER SECTOR

CERC in '***Chapter 4 – Computation of Capital Cost and Capital Structure***'[1] of its guidelines further states:

"The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system."

[1] Source: CERC Notification No. L-1/144/2013/CERC Dated 21st February, 2014

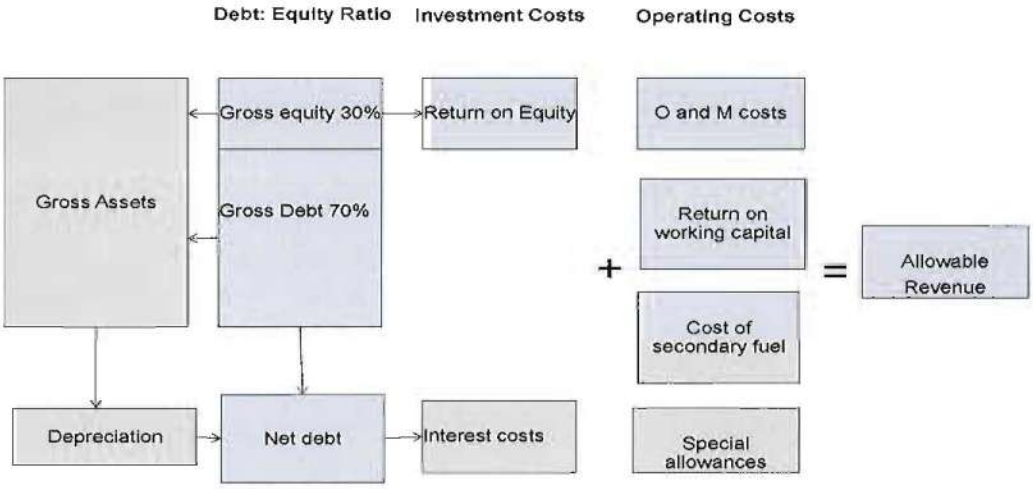
CERC, adopts a methodology based on a return on equity approach with a pass through of interest cost where building blocks do not include a return on RAB component.

This is a very different approach from that prescribed by AERA. In practice CERC reviews norms on project to project basis. CERC uses a gross fixed assets approach and does not vary debt or equity unless additional capital is expended.

For this reason truing up against the norm is not a problem to CERC. At the same time, although the notional net debt reduces with depreciation, this is not taken account of in the regulatory process, except through lower interest charges.

Our understanding of the overall approach is shown below:

Chart Outline of CERC Approach



1. None of the Indian Regulators have prescribed a fixed Debt Equity norm for the companies operating in their respective sectors, except CERC.
2. Under the latest CERC guidelines, facilities which have achieved COD prior to the cut-off date are not subject to the normative Debt:Equity ratio.
3. The Authority, in its consultation paper, has taken reference from CERC guidelines for Debt Equity ratio. Notably, CERC follows a very different approach for Tariff determination in Power and Electricity sector as compared to the approach adopted by the Authority for Airport Sector. CERC give interest cost as a pass through and full return on Equity deployed.
4. Electricity as a utility is very different from airports and as such applying same norm to both sectors may not be entirely prudent.

GHIAL POSITION ON USAGE OF NORMATIVE DEBT EQUITY RATIO FOR EXISTING PPP AIRPORTS:

As already submitted supra, Airports differ from other utility services such as power in the sense that airports are providers of several economic activities as compared to power stations where only a single economic activity (generation of power) is performed.

Even so, on a review of the CERC norms which have been taken as a reference point by the Authority it is clear that existing power plants have not been brought under the ambit of the proposed Debt-Equity ratio.

The Authority should take cognizance of this and not apply these norms for existing PPP airports.

GHIAL POSITION ON USAGE OF NORMATIVE GUIDELINES FOR FUTURE AIRPORTS:

While taking regulatory standards followed in other sectors may be a step in the right direction, the Authority must take note of the differences between these sectors and the airport sector.

With stable, single-function utilities like power, it is easier to allocate a normative capital structure. The Airport sector is currently still in its infancy and also depends on specific concessions provided by state/central government to achieve feasibility viz. the support in the form of grants and interest free loans and that makes it more complicated to assign a normative debt equity benchmark to be followed by all airports.

Even where the normative Debt-Equity guidelines are applied by CERC, (i) each proposal is treated on a case-by-case basis in order to determine the actual capital structure of the said power plant and (ii) normative guidelines fixed during a control period are reviewed on a regular basis.

The above must be noted by the Authority while finalizing the proposed normative guidelines for future airport developments.

DEBT EQUITY RATIO: GHIAL RECOMMENDATION

To conclude, it is best left to the airport and the lenders decide on the best debt equity ratio for the airport rather than putting a normative ratio which can only hurt the industry. The actual Debt and Equity should be used for the tariff determination of the airports.

VII. PROPOSAL 2: REGARDING FAIR RATE OF RETURN ON EQUITY

AUTHORITY'S VIEW

a. The Authority proposes to consider fair rate of return on equity (Shareholders funds, sometimes called Net Worth) at 16% as reasonable and on normative basis.

The return should be in consonance with the concessions granted or assurances given to airport operator by the central government or state government as the case may be.

FAIR RATE OF RETURN ON EQUITY: WITHOUT PREJUDICE

GHIAL in the 1st control period submitted a proposal for revision of tariffs for aeronautical services at GHIAL. The proposal was based on the principles of tariff fixation provided in the State Support Agreement. The first regulatory period was a 5 year period commencing from FY12 and up to FY16.

Based on the submission and various deliberations and consultations thereafter, In exercise of powers conferred by Section 13(l)(a) of the AERA Act, 2008, Authority determined the tariff vide its order no. 38/2012 -13 dated 24th Feb 2014.

GHIAL had challenged the AERA Order for Hyderabad Airport before Hon'ble High Court of Andhra Pradesh. The court directed the Central Government to pass appropriate orders as within eight(8) weeks from the date (10th June 2014) of receipt of copy of this order on the policy of till applicable to Hyderabad airport. On a request made by the Central Government, the time has been further extended by 10 more weeks. GHIAL filed an appeal before AERAAT on merits. Since, AERAAT is not in existence, GHIAL filed a Writ Petition before the High Court at Hyderabad and the same is pending for adjudication.

Hence, the present response to the aforesaid proposal of the Authority is, without prejudice to the outcome of aforesaid litigation. We reserve our right to amend /revise our response based on the outcome of the aforesaid litigation or the till issue to be decided by MoCA as was directed by Hon'ble High Court.

GHIAL POSITION VIS-A-VIS RETURN ON EQUITY FOR EXISTING PPP AIRPORTS:

The aforesaid proposal is sub-Judice at AERA appellate tribunal (AERAAT), Hon'ble High Court and MoCA. The authority should finalize the aforesaid proposal only after a final outcome of the above.

AGAINST THE PROJECT AGREEMENTS

The State Support Agreement of GHIAL deals with financial and fiscal support provided by GoAP to GHIAL. The Clause 2.3 (b) (i) which pertains to the equity IRA is reproduced herein below for ready reference:

"2(b) Interest Free Loan ("IFL")
(i) GoAP shall make available to the HIAL, an IFL in the sum of Rs. 3.15,00,00,000 (Rupees three hundred and fifteen crores). IFL shall not in any circumstances attract interest repayments. GoAP

agrees and accepts that the IFL may be adjusted pro-rata upwards or downwards on completion of the DPR, if the determination is made that such pro-rata adjustment is required as a result of change to the Project cost and so as to maintain equity internal rate of return at 18.33 %"

GHIAL POSITION VIS-A-VIS RETURN ON EQUITY

The applicable clause in the State Support Agreement for GHIAL clearly mentions that minimum equity internal rate of return at 18.33 %. Hence, anything contrary to this places the Authority in default of Project Agreements.

The Authority in their own material has referred to clauses in the SSAs of the Delhi & Mumbai airports to justify their approval of the Hybrid Till mechanism for these projects. This is an implicit acceptance by the Authority that clauses of the State Support Agreement must be honoured in the tariff calculation methodology.

It is therefore inconsistent on the part of the Authority, and surprising to GHIAL that the Authority continues to undermine a similar term in the HIAL State Support Agreement which guarantees a minimum IRR available to GHIAL.

GHIAL POSITION VIS-A-VIS RETURN ON EQUITY FOR FUTURE AIRPORTS:

The Authority must include parameters in the bid documents stage itself for the future airports. Concessions given to the Airport by any of the involved stakeholders must be honoured during the tenure of the such concession agreement.

FAIR RATE OF RETURN ON EQUITY AS ADVISED BY VARIOUS CONSULTANTS

Following is a comparison of Fair rate of equity return computed by various consultants appointed by various Industry and Ministerial Bodies:

	NIPFP (AERA)		KPMG (APAO)			SBI Cap (MoCA)	Jacobs (DIAL)
Details	Normative D/E	D/E on Market Value	D/E at 1	D/E at 1.5	D/E at 2		
Risk free rate	7.23%	7.23%	7.83%	7.83%	7.83%	7.19%	8.3%
Asset Beta	0.55	0.55	0.8	0.8	0.8	0.71	0.8
Debt/Equity (D/E)	1.2	0.47	1	1.5	2	1.5	1.98
Levered Beta	0.99	0.72	1.34	1.60	1.87	1.42	1.9
Eq. Risk Premium	6.10%	6.10%	9.33%	9.33%	9.33%	8.62%	9%
Equity Cost	**13.3%**	**11.6%**	**20.3%**	**22.8%**	**25.3%**	**19.5%**	**25.1%**

GHIAL POSITION VIS-A-VIS RETURN ON EQUITY FOR EXISTING & FUTURE AIRPORTS

From the above it is evident that barring NIPFP, none of the consultants has computed an Equity Cost of less than 19.5%. Therefore the Authority is requested to consider an appropriate fair rate of equity return which is closer to industry standards and averages.

FAIR RATE OF RETURN ON EQUITY: NIPFP ASSUMPTION OF DEBT EQUITY RATIO

In matter of Tariff Determination at IGI Airport, Delhi, Authority had appointed National Institute of Public Finance and Policy (NIPFP) for deciding on Fair rate of return on Equity based on this a fair return of 16% on equity was allowed at Delhi Airport. Notably, NIPFP in their response on DIAL Comments to Consultation Paper No. 32 and SBI Caps report which was used by Authority and published as Annexure 1 to their Order No. 3/2012-13 dated 20th April 2014 has stated:

"The normative DER of airport companies in India is likely to be somewhere between the estimates from foreign airport companies and the Indian infrastructure companies, because the normative DER is dependent on both the nature of the oirport business as well as the practice of infrastructure financing in India. We recommend AERA to consider a normative DER somewhere in this range. AERA can consider 1.2 as the normative DER."

GHIAL POSITION VIS-A-VIS RETURN ON EQUITY FOR EXISTING & FUTURE AIRPORTS

From the aforesaid it is evident that AERA's Proposal 2 of Fair return at 16% is based on debt equity of 55:45. **This is in inconsistent with Proposal 1 of the Consultation Paper for Debt Equity ratio at 70:30.**

The Authority is required to review its calculation of cost of equity . Also, the rate of return should be in consonance with the concessions or assurances given by central government or state government as the case may be and should not be contradictory to the same.

FAIR RATE OF RETURN ON EQUITY: NIPFP RETURN UPDATED BASED ON ACTUALS

While determining a Fair rate of equity return for Airports, the Authority had relied upon NIPFP report.

The said study was first done in 2010 while determining tariff for Delhi Airport. If the same study is updated, based on the actuals available, the outcome would be as show in the table below. And if this calculation will change further if we use latest Bloomberg data in Asset Betas of both developing/developed countries. The comparison of revised calculation is show in the table below.

The Effect of Leverage on the Cost of Equity

The Table below shows three different scenarios of determining cost of equity:

0. Case 1 shows the change is COE on account of change in debt equity at 70:30, keeping all other components constant;
1. Case 2 reflects change in COE due to change in debt equity to 70:30 and a higher beta at 0.72, keeping all other constituents constant;
2. Case 3 shows the overall impact considering debt equity at 70:30, beta at 0.72 and Rfr and 8.5%, keeping all other variables constant.

In the left hand column, base case, is the cost of equity with assumptions adjusted to produce a cost of equity of 16% under the normative debt: equity ratio of 1.2 proposed by NIPFP.

In Case 1, the assumptions are identical but an adjustment has been made to equity beta to reflect the new debt proportion of 70%. The formula for this adjustment is given on Page 21 of the 2012 NIPFP report 'Cost of Equity for Private Airports in India Comments on DIAL's response to AERA Consultation Paper No. 32, and the report by SBI Caps'.

Finally, in Case 2, the effect is illustrated of moving from asset levels restricted to mature economies (principally European, Australasian and Japanese) to betas drawn from the full range of quoted airport companies. There is a strong case for using betas based on emerging economies, (0.82) however this has not been incorporated into these illustrative figures.

In Case 3, in addition to the assumptions considered under case 2, Risk Free Rate (Rfr)has also been updated to reflect the current rate on Yield on 10 year Govt Bond.

Factor	Equation	(Base Case) Debt 54.5%	(Case 1) Debt 70%	(Case 2) Debt 70% plus higher beta	(Case 3) Debt 70% plus higher beta Plus revised existing RFR
Tax		34%	34%	34%	34%
Risk Free Rate	R	7.50%	7.50%	7.50%	8.5%
Risk premium	ERP	8.60%	8.60%	8.60%	8.60%
Asset Beta	Ba	0.55	0.55	0.72	0.72
Debt	D	54.5%	70%	70%	70%
Equity	E	45.5%	30%	30%	30%
D/E	D/E	1.20	2.33	2.33	2.33
Leverage Factor	L = 1+D/e x (1-t)	1.79	2.54	2.54	2.54
Equity beta	Be = Ba X L	0.98	1.40	1.83	1.83
Cost of Equity	**R+Be X ERP**	**16.0%**	**19.5%**	**23.2%**	**24.2%**

Conclusion:

From the above, it is evident that even if the study considered by Authority is revisited and updated based on the actuals available. The Fair Rate of return on Equity would work out to

19.5% : if we update the debt equity ratio proposed by Authority.,
23.2% : if beta is changed to the latest beta and
24.2% : if the Risk free rate is updated.

GHIAL POSITION VIS-A-VIS RETURN ON EQUITY FOR EXISTING & FUTURE AIRPORTS

From the above it is evident that even if the study considered by Authority is revisited and updated based on the actuals available. The Fair Rate of return on Equity would work out to:

19.5% : if we update the debt equity ratio proposed by Authority.,
23.2% : if beta is changed to the latest beta and
24.2% : if the Risk free rate is updated.

Hence, the proposal of the authority for a 16% cost of equity is not in sync with actuals and data from financial markets.

FAIR RATE OF RETURN ON EQUITY: OTHER SECTORS

Ports: Return on Equity will be 25% with debt equity ratio proposed by Authority
In the ports sector, TAMP allows return on capital employed fixed in accordance with CAPM. In clauses 2.9.1 and 2.9.2 of its revised guidelines for tariff fixation of March 2005, TAMP notes as follows:

"2.9.1. Return will be allowed on Capital Employed (ROCE), both for Major Port Trusts and Private Terminal Operators, at the same pre-tax rate, fixed in accordance with the Capital Asset Pricing Model (CAPM)."

Clause 2.9.2. of the tariff guidelines of March 2005 requires this Authority to review the rate of ROCE in April every year, in the light of the changes in the key parameters

As such at present, TAMP allows 16% ROCE. A ROCE of 16% implies a Cost of Equity of 25%, on the basis of a 70:30 debt equity and cost of debt assumed to be at 12%.

Highways: B K Chaturvedi Committee recommend a return of 18% (going up to 21%)
BK Chaturvedi Committee (constituted by the Prime Minister on 8th August 2009) on National Highway Development Program (NHDP) as accepted by the Central Government, mention to acceptable return on equity as:

"Before implementing a project on EPC basis, it will be compulsorily tested for BOT (Annuity) and only if unacceptable bids are received then only the project will be awarded on EPC basis. Normally, an annuity bid working out to an Equity IRR of up to 18% will be acceptable as per these norms. However, in the event of bids exceeding the Equity IRR of 18 %, the same will be bid out on EPC. In case of difficult areas having law & order problems, security, inhospitable terrain, etc., a bid working out to an Equity IRR of up to 21% will be acceptable considering the risk premium of 3%, on case to case basis."

As such the minimum return recommended was 18%.

Small Hydro: Rate between 28% to 34%.
In May 2014, in response to the petition no. SM/354/2013, CERC held in case of small Hydro Projects: *"Considering higher gestation period and risk associated in execution af small hydro projects, pre-tax ROE should be 28% p.a. for first 10 years and 34% p.a. from 11th year onwards."*

GHIAL POSITION VIS-A-VIS RETURN ON EQUITY FOR EXISTING & FUTURE AIRPORTS

In line with our consistent stand in this matter, we maintain that the fair rate of return on Equity proposed by the Authority is very low, even by the standards of other regulators.

FAIR RATE OF RETURN ON EQUITY: GHIAL RECOMMENDATION

The current return on Equity is very low. This will mean that GHIAL will not be able to viable with a 16% return on equity. AERA under section 13 (1) (a) (iv), Authority needs to ensure economic and viable operation of the airport:

CHAPTER III		
POWERS AND FUNCTIONS OF THE AUTHORITY		
Functions of Authority	13.	(1) The Authority shall perform the following functions in respect of major airports, namely:— (*a*) to determine the tariff for the aeronautical services taking into consideration— (*iv*) economic and viable operation of major airports;

As such it is earnestly requested that the Authority need to allow an Equity IRR of minimum 18.33%.

VIII. PROPOSAL 3: REGARDING USEFUL LIFE OF ASSETS AND DEPRECIATION

AUTHORITY PROPOSAL

a. The Authority proposes to lay down, to the extent required, the depreciation rates for airport assets, taking into account the provisions of the useful life of assets given in Schedule II of the Companies Act 2013 (Act 18 of 2013), assets that have not been clearly mentioned in the Schedule II of the Companies Act or may have a useful life justifiably different than what is indicated in the Companies Act, 2013 in the specific context to the airport sector. The Authority has initiated the process to enable it to issue a notification as appropriate, pursuant to the provisions Part B of Schedule II of the Companies Act 2013 for this purpose.

GHIAL POSITION REGARDING LIFE OF ASSETS & DEPRECIATION FOR EXISTING AND FUTURE AIRPORTS

As of now, we are agreeable to go ahead with the depreciation rates as quoted in New Companies Act, 2013.

However as and when the Authority proposes new depreciation rates for various specialized airport assets not prescribed in the New Companies Act, 2013, we request that Authority should provide sufficient time and opportunity to provide our response on the revised life proposed for various specialized assets.

IX. PROPOSAL 4: REGARDING OPERATION AND MAINTENANCE EXPENDITURE

The Authority proposes to true up O&M expenditure in respect of major airports in the process of its tariff determination.

GHIAL POSITION REGARDING TREATMENT OF O&M EXPENDITURE

As of now, it seems reasonable to go ahead with the true up of Operational Expenditure. However the total opex including the expenditure towards additional expenditure on account of foreign exchange fluctuation of Forex borrowings.

X. PROPOSAL 5: REGARDING NORMS FOR CAPITAL EXPENDITURE

a. The Authority expects that while finalising 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
ii. Design criteria for Runway / Taxiway/ Apron (Airside works) as may be available in published literature on the subject (ICAO Documents, DGCA CARs as may be applicable)
b. The Authority proposes to consider capital costs of terminal building at a ceiling cost of Rs. 65,000 per square meter or actuals whichever is lower.
c. The Authority proposes to consider capital costs of Runway/Taxiway/ Apron at a ceiling cost of Rs. 7,000 per square meter or actuals whichever is lower (excluding earthwork upto the sub grade level). The expenditure on the earthwork will be carried out as per the CPWD methodology.
d. The Authority proposes to consider the capital costs of other works based on a publicly available standard like the CPWD methodology (for Scheduled items CPWD schedule rates and for Market Items proper market rate analysis in line with CPWD framework and methodology).

IMG REPORT: UNIT COST OF CONSTRUCTION SHOULD BE DECIDED ON CASE TO CASE BASIS

As regards to unit cost of construction, the IMG report states:

"F. Unit Cost of Construction
In an airport terminal, the cost of construction is driven by 'facilities' and 'finishes'. It is, therefore, imperative for planners to achieve a judicious balance between design specifications and costs associated with each element. 'Value for the Money should be the motto'.

Since the architects, project engineers and contractors of a project may have the tendency to overdesign and use expensive finishes, there should be some institutional check and balance for specifying an indicative/ benchmark unit cost within which an airport should be designed and constructed. ***The cost of construction is, however, dependent upon various variables.***

It is easily impacted by locational factors. Therefore, it may not be possible to lay down any general norms in this regard..."*(emphasis added)*

IMG benchmarks are not intended to have the status of full planning guidelines. IATA's Airport Design Reference Manual referred to in concession agreements, provides detailed methodologies and formulas for specifying the requirements of each of the facilities at the airport. IATA's planning methodology is to determine the required area for each passenger processing facility, based on the characteristics of the traffic it is dealing with, and other factors affecting local requirements, and from this to determine the total passenger processing area required by summing the areas required for the individual processes. In contrast, IMG simply defines a top down benchmark for the size of building without providing any detailed planning parameters. The more detailed bottom up IATA approach – widely applied and based on substantial international expertise and research, - is likely to be more reliable.

"G. Airports developed through Public Private Partnerships
In the case of airports developed through Public Private Partnerships, the project authorities may adopt a case by case approach with respect to norms relating to unit area and unit costs. Based on the judicious consideration of international best practices and financial viability, the norms may be specified in each case prior to inviting bids for private participation."

The need for a separate consideration of airports on PPP concessions, as recommended by IMG, is emphasized by the fact that airports on concessions are in most cases instructed to observe a series of international standards and to follow specified planning guidelines including those of ICAO and IATA. Delhi and Mumbai are further required to match the prevailing quality standards of the top five international airports in the Asian region.

In comparison, IMG in specifying its standards for area norms employs relatively restricted information. It is important to note that unlike AAI airports with a single operator, all PPP airports have different operators, each bound by specific development conditions and service performance standards and could not observe a 'one size fits all' approach of the type proposed by the AERA without potentially breaching their PPP agreements.

GHIAL POSITION FOR EXISTING AIRPORT DEVELOPMENTS

As such it is earnestly requested that the existing system of reviewing and approving project cost by way of benchmarking and audit is the best system for determination of project cost. And the same may be continued for future as well.

GHIAL POSITION FOR FUTURE AIRPORT DEVELOPMENTS

We are confident that IMG would accept that for the detailed planning of individual terminals, and determining from that their required areas, the IATA approach is to be preferred.

Most of the PPP airports are mandated with development standards based on IATA and others and it would not be practical or appropriate to attempt adopt IMG's indicative benchmarks where they conflict with meeting the IATA standards.

Based on our study of existing literature and guidelines regarding Airport construction, it is clear that major airports which are designed as 'world-class' cannot be assessed using the same Capex benchmark used for AAI airports.

IMG Norms states the following on Unit Cost of Construction (Para B.6):

"The design and approach towards Airport Terminals has undergone a radical change. Earlier, a terminal was a building where a passenger commenced ond concluded an air journey. In the present times, a lot more is expected from Terminal- not only it should be functionally efficient, it should also be aesthetically and architecturally appealing. It encompasses o wide variety of activities related to aviation, leisure, comfort, shopping and business apart from Customs, Immigration, and Security etc. ***Comparison with a 'World Class' airport in neighboring countries is also a crucial factor in planning Airport Terminals.*** *Construction cost is mainly driven by the target Level of Service Standards. The location is another importont factor. The cost of construction generally increases by about 10% in difficult and remote areas."*

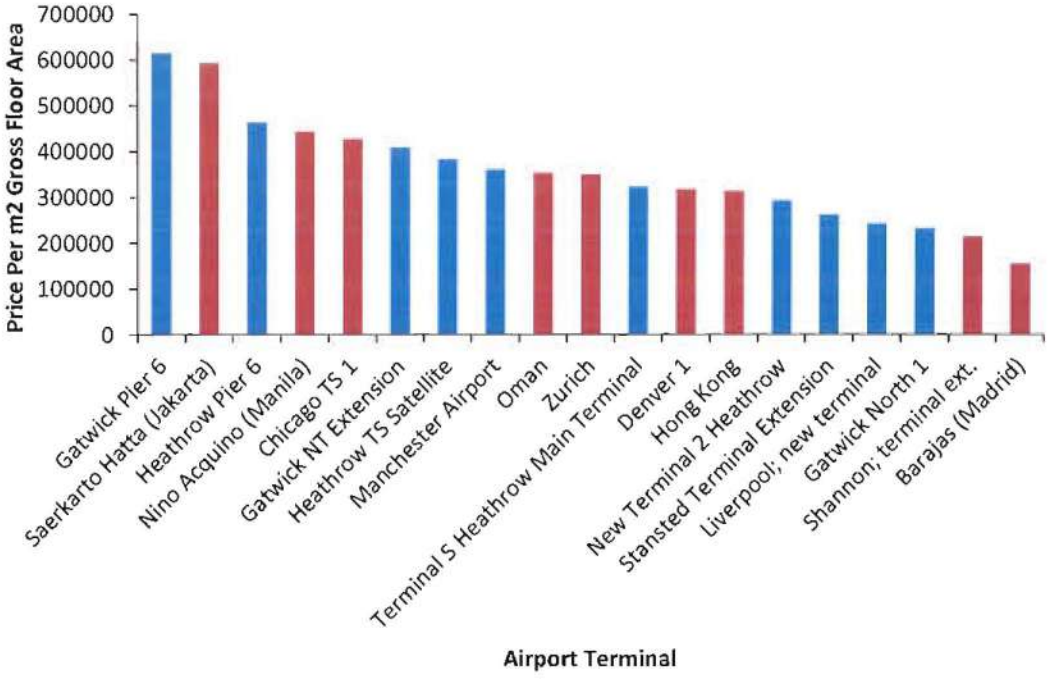
GHIAL POSITION FOR EXISTING AIRPORTS

It is envisaged that the metro airports like Hyderabad airport should be world class compared to airports in neighbouring countries. From our actual experience and from secondary data available from other Indian airports, this objective cannot be achieved under the normative Capex guideline of Rs. 65000 per square meter prescribed by the Authority.

As demonstrated later in our response, the guideline is inconsistent even with unit capex costs other Indian airports approved by the MoCA and AERA. It is requested that the Authority review the data available to them in this regard before setting a benchmark.

CAPITAL COST – INTERNATIONAL PRECEDENCE

A view on the capital cost in International setting reflects that the norm proposed by AERA at INR 65,000 is only 10% of the price per sqm considered for Gatewick Pier 6 (peak of the sample considered in the chart below) and 40% for Barajas – Madrid (lowest in the sample)



GHIAL POSITION ON CAPITAL EXPENDITURE NORM FOR EXISTING & FUTURE AIRPORTS

We suggest AERA to take a holistic view and be in cognizance of capital costs considered globally. The entire world is now moving towards creating world class airports.

Applying a normative benchmark to the capital cost expenditure would be detrimental to the quality standards maintained by private airport sector operators.

CAPITAL COST AS APPROVED BY AERA

From the various capital cost approved by AERA in past and as complied in Table No. 5 of the Consultation Paper, following is a quick analysis on the same:

S.No.	Airport	Area of Terminal (Sq. mtr)	Cost of Building (INR Crore)	Terminal Building Cost /Sq.mt
1	Bangalore – Terminal 1 Expansion	85,000	1,235	1,45,318
2	Guwahati Terminal Building	2,005	27	1,33,815
3	Trivandrum – Integrated Terminal Building	23,000	289	1,25,652
4	IGI Airport, Delhi - T3 & Associated Buildings	5,53,887	6,836	1,23,419
5	Chennai –Integrated Terminal Building	1,33,142	1,547	1,16,156
6	Mumbai - Terminal 2, MLCP & Access roads	4,39,512	5,083	1,15,650
7	NSCBIA, Kolkata –Integrated Terminal Building	1,98,692	1,553	78,167
8	Cochin – New Terminal proposed	1,50,000	650	43,333
	Average			**110,189**
	Weighted Average			**110,015**
	Median			**119,788**

REVIEW OF REASONS FOR LOWER COST OF COCHIN AIRPORT

The proposed norm at INR 65,000 seems to be drawn from the estimated cost of New International Terminal at Cochin Airport. However, the authority has ignored critical areas while finalizing its proposal.

On a closer look at the Capital cost numbers as approved by the Authority, all airports except Cochin Airport have a cost higher than the benchmark proposed by AERA. Even the Weighted average of all the approved cost is almost double the proposed capital cost for a Terminal Building.

Our observations regarding the difference in cost are as below:

1. The proposed cost is for a future development. Authority has ignored all other developments of the past which have been approved by MoCA, and relied only on one development.
2. Authority may take a notice that the INR 45,000 per sqm is the projected cost. The actual cost may be substantially higher than the initially estimated costs, as much prevalent in large infrastructure projects.
3. Cochin Airport is not governed by a concession agreement, unlike other private operators who have to abide by the terms in the project agreements. The project agreements lay down the conditions which entail substantial project costs to be incurred.
4. It may be noted that the estimated cost by Cochin Airport may not represent the Full cost at the time of completion of the project:
    a. Out of the total area at 150,000 sqm originally estimated in the project plan, they might initially develop only 50 – 60% of the total area;
    b. Instead of 112 check in counters proposed, they may initially operationalize half of the proposed counters only;
    c. Out of 15 Passenger Boarding Bridges, they may start with few of them only.

The Authority may note that the proposed terminal at Cochin Airport will majority be a concrete structure, which entails comparatively lesser costs than glass and steel structures used in most privately operated airports.

Additionally, it may also be noted that their expenditure on finishes is the balancing figure, which means any escalation in the project cost is adjusted towards reduction in the terminal finishes. However, in case of GHIAL, it has to follow the terms laid down in the concession agreement and has no scope of manoeuvring with the project plan.

If Cochin Airport is treated as an outlier and excluded from the above sample, then the averages would be as follows:

S.No.	Airport	Area of Terminal (Sq. mtr)	Cost of Building (INR Crore)	Terminal Building Cost /Sq.mt
1	Bangalore – Terminal 1 Expansion	85,000	1,235	1,45,318
2	Guwahati Terminal Building	2,005	27	1,33,815
3	Trivandrum – Integrated Terminal Building	23,000	289	1,25,652
4	IGI Airport, Delhi - T3 & Associated Buildings	5,53,887	6,836	1,23,419
5	Chennai –Integrated Terminal Building	1,33,142	1,547	1,16,156
6	Mumbai - Terminal 2, MLCP & Access roads	4,39,512	5,083	1,15,650
7	NSCBIA, Kolkata –Integrated Terminal Building	1,98,692	1,553	78,167
	Average			**119,740**
	Weighted Average			**115,449**
	Median			**123,419**

We would like to bring into Authority's notice that the terminal cost considered by the Authority in the consultation paper lacks consistency and needs correction to reflect the true and factual picture. A review of the actual terminal cost considered by the regulator in the past for various airports is as follows:

Kolkata Airport

Cost Considered by Authority in CP No. 5	1,553 crores
Cost Considered in the Order No. 35 2012/13	2,325 crores
Cost per sqm considered in CP No.5	**78,167**
Cost per sqm as per Order No. 35 2012/13	**1,17,015**
Upward change in the per sqm cost	**INR 38,848**

In case of Chennai Airport, the required equipment is still being installed. As per the press release in July 2014, the Chennai airport was looking to add baggage ramps. This reflects that the project cost for the airport is not yet finalized. There may be additional installations which will add to the actual total cost but not considered in the terminal cost considered by the authority for the purposes of this comparison.

COMPARISON OF AIRPORT FACILITIES AT EXISTING AIRPORTS

Following is a quick comparison of facilities and capacities of various Indian airports:

FY13	Unit	Kolkata	MIAL	BIAL	CIAL	Chennai
Annual Passenger Capacity	MPPA	24	30	12	10	23
Annual Cargo Capacity	000'tonnes	130	1500	350	100	1000
Terminals	No.	3	4	1	2	4
Runways	No.	2	2	1	1	2
Aerobridges	No.	18	18	8	5	18

Parking Bays	No.	53	100	42	16	85
Check in Counters	No.	128	309	53	65	197
Employees	No.	1147	1366	800	512	1093
Ground Handling Companies	No.	2	3	3	2	2
Cargo Handling Companies	No.	2	2	2	1 (In-house)	2
No. of Scheduled Airlines Operating from airport	No.	26	53	31	18	27

Source: CAPA India Aviation Outlook 2013/14

GHIAL POSITION ON CAPITAL COST EXPENDITURE FOR EXISTING & FUTURE AIRPORTS

From the above it is evident that no two airports are comparable in terms of facilities provided to stakeholders at the airport. And there can be several other differentiating factors too, so comparing the cost of construction of various airports would be inappropriate.

CAPITAL COST NORMS IN OTHER SECTORIAL REGULATORS

Power

On 04 April, 2012, the Power regulator Central Electricity Regulatory Commission (CERC) in the matter of benchmarking capital cost for Thermal Power Stations with Coal as Fuel via Order No. L-1/103/CERC/2012, appointed a consortium of consultants {M/s Evonik Energy Services (India) Pvt. Ltd; M/s Power Research and Development Consultants (in short PRDC), and M/s Klynveld Peat Marwick Goerdeler (in short KPMG)} were engaged with the objective of developing benchmark norms for capital cost of thermal power units. The methodology followed by the consortium is as follows:

- Source reliable available data,
- Analyze the data,
- Create a data base,
- Define Disaggregated Packages of Hard Cost of a Project,
- Recommending appropriate methodology through which a benchmark capital cost of a completed project would be arrived at for the purpose of prudence check
- Develop financial/pricing model with identified escalation factors assigning due weightage for various materials/factors etc.

The financing cost, interest during construction, taxes and duties, right of way charges, cost of Rehabilitation & Resettlement etc. would be additional and were not to be factored in benchmark cost being developed. The model so developed was to be validated based on the historical data from the database. The order also clarified:

That the proposed model for capital costs is not intended to replace the price discovery based on International Competitive Bidding (ICB) tendering process. Model is broad based for defined boundaries. It provided that model or the benchmark numbers so derived from the model are intended to be used for the purpose of prudence check as provided in 2009 Tariff Regulations.

In the clarification no. 10.1, that any deviation on account of specific issues related to various costs of civil works will moy be dealt on case to case basis at the time of prudence check.

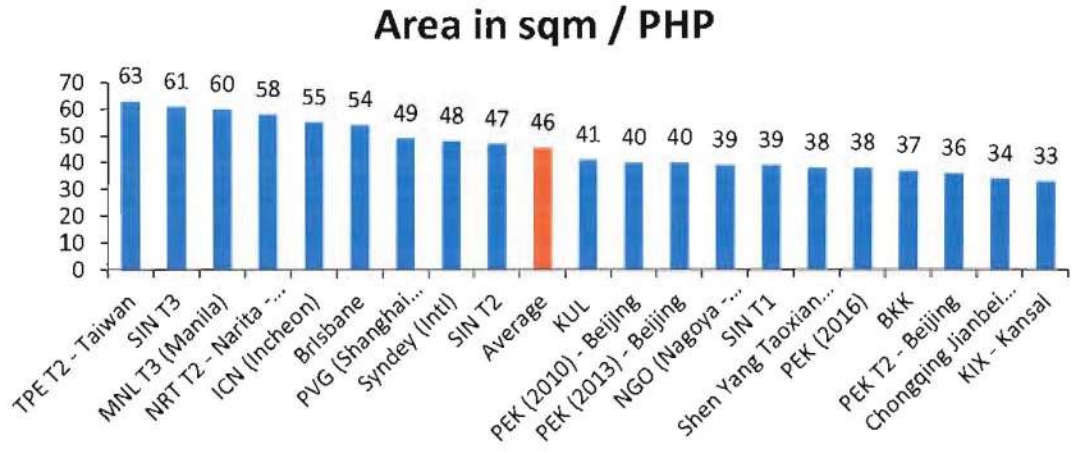
GHIAL POSITION ON CAPEX BENCHMARKS FOR EXISTING & FUTURE AIRPORTS

CERC while determining a benchmark capital cost had appointed three industry expert consultants namely, M/s Evonik Energy; M/s PRDC; and M/s KPMG to determine the benchmark cost. However, Authority has not shared any such details of study by any consultant.

Secondly, the benchmarking of capital cost is done only for hard cost and it does not include soft costs such as, Financing cost, Interest during construction cost, Taxes and duties etc. And lastly, the aforesaid benchmark is only for prudence check and if the price is determined through International Competitive Bidding then the prudent cost is not to override the determined cost.

IMG NORM ON AREA / PHP ARE VERY LOW COMPARED TO INTERNATIONAL AIRPORTS

AERA has proposed a norm for 25 area per sqm / peak hour passenger (php). Comparing the rule with the comparable airports in the Asian region gives average close to 46 area (in psqm)/php.



GHIAL POSITION ON CAPEX BENCHMARK FOR EXISTING AND FUTURE AIPORTS

The proposed ratio by AERA is very low than the average of comparable airports in the Asian region. We understand the proposed ratio, if implemented, will lead to airport congestion and lead to a fall in the quality standards.

Hence, we recommend that authority consider the ratio at least close to comparable airports.

CAPITAL COST NORMS: GHIAL RECOMMENDATION

It is being requested that Authority may consider continuing with the existing process of User Consultation, Audit and Review of the project cost on case to case basis.

In case of new projects like DIAL, MIAL, BIAL etc. the project cost was audited by

1. Technical Auditors
2. Financial Auditors

Thereafter the Authority had put up the project cost for User Consultation, wherein, the views of all stakeholders were received and based on the above, the project cost was approved. Above system is a very robust and comprehensive mechanism and the same may be continued for future projects as well.

XI. AERA PROPOSAL ON AERONAUTICAL AND NON AERONAUTICAL ASSET AND OPEX ALLOCATION

AUTHORITY'S VIEW

a. The Authority proposes to make the aeronautical and non-aeronautical asset allocation (wherever necessary, refer Para 8.3) in 80:20 ratio for the Terminal Building and common use assets.
b. The Authority proposes to consider the cost of Airside operational assets (including operational boundary wall and roads) that are meant for aeronautical services.

a. The Authority proposes to make the allocation of O&M expenditure between aeronautical and non-aeronautical services (wherever necessary) in 80:20 ratio.

AERONAUTICAL AND NON AERONAUTICAL ASSET ALLOCATION: IMG REPORT DO NOT PRESCRIBE THE 80:20 RATIO

IMG Report in its Unit Area Norm has stated following (Para E):
"Overall space/area norm should be such as to provide a reasonable level of service for all components require in Terminal Building. Commercial or Retail area providing amenities like food and beverages, book shops, counters for car rental, vending machines, public rest rooms etc. normally require 8-12% of overall area, and should be planned and provided accordingly. In bigger airports, i.e., with annual passenger traffic exceeding 10 million, commercial area could be upto 20% of overall area."

GHIAL POSITION REGARDING AERO/NON-AERO ASSET ALLOCATION FOR EXISTING AND FUTURE AIRPORTS

IMG norms prescribe a normal ratio of 8-12%. This could go up to 20% for specific cases. As such we see no logic in adoption of ratio of 20% which is the highest possible as per IMG norms.

ASSET ALLOCATION APPLICABLILTY

GHIAL in the 1st control period submitted a proposal for revision of tariffs for aeronautical services at GHIAL. The proposal was based on the principles of tariff fixation provided in the project agreements. The first regulatory period was a 5 year period commencing from FY12 and up to FY16.

Disregarding various submissions made by GHIAL, the Authority had determined the tariff vide its order no. 38/2012 -13 dated 24th Feb 2014 by adopting single till.

GHIAL had challenged the AERA Order for Hyderabad Airport before Hon'ble High Court of Andhra Pradesh. The court directed the Central Government to pass appropriate orders as within eight(8) weeks from the date (10th June 2014) of receipt of copy of this order on the policy of till applicable to Hyderabad airport. On a request made by the Central Government, the time has been further extended by 10 more weeks. GHIAL filed an appeal before AERAAT on merits. Since, AERAAT is not in existence, GHIAL filed a Writ Petition before the High Court at Hyderabad and the same is pending for adjudication.

Hence, the present response to the aforesaid proposal of the Authority is, without prejudice to the outcome of aforesaid litigation. We reserve our right to amend /revise our response based on the outcome of the aforesaid litigation or the till issue to be decided by MoCA as was directed by Hon'ble High Court.

GHIAL POSITION VIS-A-VIS ASSET ALLOCATION FOR EXISTING PPP AIRPORTS

The aforesaid proposal is sub-Judice at AERA appellate tribunal (AERAAT), Hon'ble High Court and MoCA. The authority should finalize the aforesaid proposal only after a final outcome of the above

AVERAGE RATIO OF INDUSTRY

The actual experiences of Indian Airports suggest that actual allocations are significantly lower than the 20% suggested by AERA. The terminal area allocation figures are shown below:

Table Non Aeronautical Proportion of Floor Area

Airport	Aeronautical	Non-Aeronautical
Delhi	84%	16%
Mumbai	84%	16%
Bangalore	86%	14%

Authority in its consultation has acknowledged that the current level of space it has observed is around 85% aeronautical and 15% non-aeronautical.

These figures are also fully consistent with the suggestions of the IMG, though lower than highest 'aspirational' end of IMG's range.

GHIAL POSITION ON ALLOCATION RATIO FOR EXISTING AND FUTURE AIRPORTS

The current allocation ratio is within the range given in the IMG report and as such no normative norm should be prescribed.

PROPOSAL 6 AND 7: AERONAUTICAL AND NON AERONAUTICAL ASSET AND EXPENSE ALLOCATION - CONCLUSION

1. Contrary to stand being adopted by AERA, direct allocation of assets and opex at individual airports are relatively straightforward to. This is confirmed by practical experience both internationally and in India itself.
2. The norm on non-aeronautical activity allocations proposed by AERA is based on work by the Inter Ministerial Group on Norms and Standards. However this only covers areas and not asset or opex allocations. It also covers a range which is intended to vary with airport size. IMG's full range is 8-20%. The figure proposed by AERA is very much at the upper end of the scale
3. If appropriate at all these norms should be applied to new investment at large airports and that too should be part of the concession documents so that investment is not caught unaware.

4. Since AERA has no basis on which to establish a norm and that direct allocation exercises should continue at airports where asset allocation plays a central regulatory role.

PROPOSAL 6 AND 7: AERONAUTICAL AND NON AERONAUTICAL ASSET AND EXPENSE ALLOCATION – GHIAL RECOMMENDATION

Authority is earnestly requested to wait till a decision is reached in case of GHIAL on the till philosophy to be adopted before a decision is taken in this matter.

XII. PROPOSAL 8 REGARDING INCENTIVIZING AIRPORT OPERATOR TO INCREASE NAR AND TRUING UP

a. The Authority proposes to true up the NAR
b. The Authority proposes to incentivize (disincentivises) the airport operator only for his "efforts" (or lack of efforts) to increase (or fail to increase) the non-aeronautical revenues at the airport.
c. The Authority proposes to operationalize Proposal No. 8 (b) by taking half the difference between the growth rate of increase of NAR and the growth rate of passengers, calculated each year, with carrying costs calculated at the WACC as applicable and add the cumulative incentive (disincentive) amount to the ARR of the first year of the next control period (refer Paragraphs 11.1 to 11.6 above for reasons and framework) and particularly with reference to the example given in Table 12 to Table 16.
d. The Authority proposes to adopt the proposal of incentivisation from the next control period viz., 1st April, 2016 to 31st March, 2021 based on the results of growth in NAR and growth in Passengers as obtained in the Current Control period. Therefore the incentive amount will be added to the ARR of the FY 2016-17.
e. The Authority under this approach proposes to take into account the costs of generating the NAR and treat them as a pass-through.
f. The Authority also proposes that it may need to ring fence the airport assets for reasons mentioned in Para 10.11 read with Para 11.6 above
g. The proposal of incentivisation of airport operators to increase non-aeronautical revenues will not apply to Delhi and Mumbai Airports (Refer paras 10.19 and 11.7 above).
h. In the case of CIAL, the Authority has issued a Consultation Paper proposing continuation of existing tariffs for the current control period. Hence, the question of any incentive pertaining to the current control period in respect of CIAL does not arise.

GHIAL CONCESSION PROVISIONS

Concession agreement of GHIAL mandates a Dual Till to be adopted for tariff fixation. Following are the relevant provisions of the project agreements of GHIAL:

> Clause 10.2.4 *"From the date the IRA has the power to approve the Regulated Charges, HIAL shall be required to obtain approval thereof from the IRA. In this regard HIAL shall submit to the IRA, in accordance with any regulations framed by the IRA, details of the Regulated Charges proposed to be imposed for the next succeeding relevant period together with such information as the IRA may require for review"*
>
> Clause 10.3 *"Other Charges HIAL and/or Service Provider Right Holders shall be free without any restriction to determine the charges to be imposed in respect of the facilities and services provided at the Airport or on the Site, other than the facilities and services in respect of which Regulated Charges are levied."*
>
> *List of charges regulated under Schedule 6*
> - *Landing Charges*
> - *Parking Charges*
> - *Housing Charges*
> - *User Development Fee*
>
> Para 13.5.2:
> *"Prior to transfer of the Airport GOI shall have the right to conduct a due diligence of the contracts and the agreements pertaining to Non-airport Activities, the rights and*

obligations of which it is assuming and shall not be bound to assume the rights and obligations of the contracts ..."

The above fact is also reiterated in schedule 7 of the CA which deals with settlement amount. Here, also GOI has the option of not taking over Non Airport activities.

GHIAL POSITION ON INCENTIVIZATION OF IMPROVEMENTS IN NAR FOR EXISTING PPP AIRPORTS

The Concession Agreement contemplates the regulation of only Regulated Charges mentioned in the Schedule 6 of Concession Agreement.

By adopting single till in order no.38/2013-14 and using revenues from Non airport and non-regulated charges, the Authority is indirectly regulating the Other Charges. This is conflicting with the provisions of the Concession Agreement. Fixing the return on entire RAB under single till leads to indirect regulation of Non Aeronautical charges which is against to the provisions of Concession Agreement.

Only three charges are mandated to be regulated by the Authority. The bifurcation of the charges into two categories clearly shows that concession has mandated a Dual till. This clearly goes on to show that the concession agreement contemplates a dual till. If a single till was envisaged the GOI would have opted to take over the entire gamut of business including Non Aeronautical and non-airport activities including the Real Estate

As discussed above, GHIAL is to be considered under Dual Till regime. The total non – aeronautical revenue should belong to GHIAL and no proportion be used for the cross subsidization.

GHIAL POSITION ON INCENTIVIZATION OF IMPROVEMENTS IN NAR FOR FUTURE AIRPORTS

It is to be noted that all Non-Aero activities at the Airport are not directly run by the Airport Operator. Non-Aeronautical Revenues often include some component of one-time and/or regular up-front payments, and contractual lease rental agreements with lessees which have periodical increments in lease rentals. Advertising revenues are not directly linked with passenger growth.

In short, a fairly major component of the Non-Aero revenues accruing to GHIAL and other existing airports come from B2B (business-to-business) contracts, rather than from B2C (business-to-consumer) sales. Therefore the Authority's assertion that all Non-Aeronautical Revenue to the Operator is directly correlated to Passenger Growth and Spending Growth is too simplistic and ultimately incorrect.

Secondly, the proposition considered by Authority that growth in Non-Aero Revenue per passenger is likely to be higher than inflation is nothing more than speculation. As India's airports grow and reach state of maturity in the future this assumption will not hold true.

The formula proposed for incentivising 'operator effort' in increase of NAR is therefore incorrect.

PROPOSAL 8 REGARDING INCENTIVIZING AIRPORT OPERATOR TO INCREASE NAR AND TRUING UP: GHIAL RECOMMENDATION

Authority is earnestly requested to wait till a final decision is reached on the Regulatory Till philosophy to be adopted before a decision can be taken in this matter.

It is to be noted that the authority has assumed that there is absolute correlation between growth in non-aero revenue and growth in passengers. However, this is incorrect, as significant component of non-aero revenue are not linked to passengers like rental, advertisement etc.