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Airports Economic Regulatory Authority of India

Determination of Aeronautical Tariff in respect of IGI Airport, New Delhi for the 1st Regulatory Period (01.04.2009 – 31.03.2014)

New Delhi: 3rd January, 2012

AERA Building
Administrative Complex
Safdarjung Airport
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Appendix I

A. **Brief Facts**

1. In the year 2003, the Airports Authority of India Act, 1994, was amended to enable setting up of private airports and the leasing of existing airports to private operators. The Amendment Act of 2003 was brought in to effect on 01.07.2004. In pursuance thereof, the Government of India (GoI), had approved the modernization, up-gradation and development of the Delhi and Mumbai Airports through private sector participation. Airports Authority of India (AAI) initiated the process of selecting a lead partner for executing the modernization projects and undertook a competitive bidding.

2. In so far as IGI Airport, New Delhi is concerned a consortium led by the GMR Group was awarded the bid for operating, maintaining, developing, designing, constructing, upgrading, modernising, financing and managing the Airport. Post selection of the private consortium a special purpose vehicle, namely Delhi International Airport Private Limited (DIAL), was incorporated on 1st March 2006 with AAI retaining 26% equity stake and balance 74% of equity capital acquired by members of consortia. The GMR consortia comprised GMR Group entities, Fraport AG, Malaysia Airports Holdings Bhd and India Development Fund (which exited the consortium subsequently). On 4th April 2006, DIAL signed the Operation, Management and Development Agreement (OMDA) with AAI and took over the operations of IGI Airport on 3rd May 2006. As per schedule 7 of OMDA a **"New Parallel Runway" and "International/ domestic terminal development, Terminal design to cater for design year not earlier than 2012" were to be** completed within 2 years and by 31.03.2010, respectively.

3. DIAL entered into various agreements with AAI, GoI and Government of National Capital Territory of Delhi (GoNCT) to give effect to the transaction. As indicated earlier the OMDA was executed between DIAL and AAI on 4th April 2006, whereby the AAI granted to DIAL the exclusive right and authority during the term to undertake some of the functions of AAI being the functions of operations, maintenance, development, design, construction, upgradation, modernizing, finance and management of the IGI Airport and to perform services and activities constituting aeronautical services and non-aeronautical services (but excluding Reserved activities)

at the airport. The OMDA has a term of 30 years with DIAL having a right to extend the agreement for a further period of 30 years subject to its satisfactory performance under the various provisions governing the arrangement between DIAL and AAI. In addition to the OMDA, DIAL also entered into the State Support Agreement (SSA) with GoI on 26th April 2006 which outlined the support from GOI. Besides OMDA and the SSA, Lease Deed Agreement, State Government Support Agreement (SGSA), Shareholders Agreement (SHA), CNS/ATM Agreement, etc., were also entered into between DIAL and relevant parties.

4. Provisions regarding "Tariff and Regulation" have been made in Chapter XII of OMDA and clause 3.1 read with Schedule 1 of the SSA.

5. DIAL submitted a proposal for revision of tariffs for aeronautical services at IGI Airport, New Delhi, for the Authority's consideration and approval on 20th June 2011 **(Annexure-I).**

6. Pursuant to the aforesaid submission, a series of discussions/ meetings/presentations have been held (during the period June to November, 2011) on the proposal including discussions in respect of the financial model developed by DIAL for this purpose.

7. Briefly stated, DIAL had filed their tariff proposal seeking a one time increase **629%** in the X Factor for determination of aeronautical tariffs (for the 5 year tariff period FY 2009-10 to 2013-14, and charging assumed from 01.09.2011) which increased to **874%** in their subsequent submission (for the 5 tariff period as above and charging assumed from 01.02.2012). DIAL vide their letters No.DIAL/Fin-Acc/2011-12/726 dated 20.07.2011, 04.10.2011, 21.10.2011, 15.11.2011, 21.11.2011 and 25.11.2011 made additional submissions **(Annexure –II, collectively)** contents whereof are discussed in subsequent sections.

8. DIAL have made the proposal (dated 20.06.2011) based on their understanding of the principles of tariff fixation provided in the SSA. They have considered the first regulatory period as a 5 year period commencing FY 2009-10 and upto 2013-14 and assumed that the charging of revised tariff shall commence w.e.f 01.09.2011 (subsequently ***amended to 01.02.2012 vide their submission dated 04.10.2011).*** Along with the

proposal, considerations/ assumptions made for preparing the proposal for determination of tariffs for aeronautical services have been submitted. These include:

a. The principles used for the current filing for revision of tariffs for aeronautical services;
b. The project cost considered in the current filing and the calculation of Regulatory Asset Base;
c. The means of finance and calculation of Weighted Average Cost of Capital;
d. The forecasts of operation and maintenance expenses and rationale for the same; and
e. The forecasts of non-aeronautical revenues and rationale for the same.

9. Following reports/studies have also been furnished to support their submissions (**Appendix-I, collectively**):

a. Certification of values of the regulated asset base as per books of accounts - certified by Statutory Auditors;

b. Report on terminal area allocation - undertaken by Jacobs Consultancy;

c. Report on allocation of the operation and maintenance costs undertaken by Jacobs Consultancy;

d. Report on determination of cost of equity of Delhi Airport by the international aviation advisory firm Leigh Fisher; and

e. Traffic forecast study for Delhi Airport carried out by Madras School of Economics.

f. Report on Operating Costs Bench Marking prepared for Delhi Airport by the international aviation advisory firm Leigh Fisher.

10. DIAL have stated that considering the provisions of concession documents and various assumptions laid out in their submissions, the target revenue was determined and thereafter the 'X' factor was computed as "the average equalization factor" of the discounted target revenues and projected aeronautical revenues over the regulatory period.

11. It has been submitted that Inflation has not been factored in their forecasts for future years and DIAL have assumed that the Authority will provide a CPI based increase over and above X factor, based on actual CPI data. In their submission dated 15.11.2011, DIAL, however, submitted a 5 year

forecast of Consumer Price Index-Industrial Workers (CPI-IW) at 7% pa based on Survey of Professional Forecasters as published by RBI on its website.

12. Further, in their submissions dated 20.06.2011, no discounts had been considered though it was requested that the Authority may consider published discounts available to eligible customers to be allowed as cost, for healthy growth of the industry. However, vide their submission dated 15.11.2011, DIAL have proposed to allow a non-discriminatory 2% discount on all landing charges received by them within 15 days (credit period) for all domestic scheduled landings and for this purpose assumed that the discount shall be availed in respect of 50% of domestic scheduled landings.

13. DIAL submitted that the current aeronautical yields are very low as historically these have increased only by a mere 10% in 2009 over more than a decade with no inflation adjustment. On the other hand the operation costs have increased significantly along with deployment of lumpy capex as part of the modernization and expansion of the airport undertaken by them resulting in a lop-sided revenue-cost structure necessitating a large tariff increase in line with the SSA. In view of the same DIAL formulated the following broad principles:

    a. *Rationale to charge both departing and arriving passengers;*
    b. *Ensuring that the impact of the increase is broken into differential buckets based on distance of flight to enable smooth absorption; and*
    c. *Promoting transfer traffic to provide a fillip to development of a hub.*

14. In line with the above, DIAL also submitted a tariff rate card, structured to be applicable for the remaining part of the 5 year control period viz. 01.02.2012 to 31.03.2014. However, as an option DIAL also submitted a rate card for an optional control period of 7.5 years, which was proposed to be applicable from 01.02.2012 to 30.09.2016.

15. Meanwhile, the Authority, pursuant to the consideration of the stakeholders submissions on Consultation Paper No.02/2011-12 dated 21.04.2011 regarding the levy of Development Fee (DF) at IGI Airport, New Delhi, issued the final Order no.28/2011-12 dated 14.11.2011 **[DF Order]** thereby determining the rate and period of levy. In the process the Authority also decided the allowable project cost for the purposes of DF.

16. Subsequent to the above referred Order of the Authority, DIAL made a further submission vide letter No. DIAL/2011-12/Fin-Acc/1583 dated **15.11.2011** requesting the Authority to consider the changes in certain assumptions and made further submissions as under:

(a) **Interest Rate: Rupee Term loan**: Change from the assumed interest rate of 11.75% p.a to 12.17% p.a with the earlier assumption of 0.5% increase year on year for the subsequent years.

(b) **Discount**: Allow a non discriminatory 2% discount on all landing charges received within 15 days (credit period) for all domestic scheduled landings, assuming that discount shall be availed in respect of 50% of domestic scheduled landings.

(c) **Fuel Throughput Charges (FTC):** To remove the escalation of 7% in FTC, envisaged w.e.f. 01.04.2011 and consider the same at the rate of Rs.601.07 per KL w.e.f. the tariff approval date till 31.03.2013 and an escalation @ 7% every year thereafter.

(d) **Cute Counter Charges**: Proposal to charge cute counter charges from domestic airlines @ Rs. 500 per departing domestic flight over and above the Rs. 1500 per international flight already being charged.

(e) **Readjustment of the RAB**: considering the actual date and amount of DF loan withdrawal for the FY 2011-12 upto FY 2013-14.

(f) **Interest on debt raised by securitisation of DF:** to allow the interest amounts as part of operating expenditure.

(g) **Collection Charges:** to allow the collection charges, on DF, payable to the airlines as an expense.

(h) **Disallowance of CIP area for Non Aeronautical Service**: The Authority has vide DF Order decided that the area measuring 8652 sq.mts meant for food court and retail at CIP, office and hotel level may not be included in the gross floor area of Terminal 3 (T3). Pursuant to the aforesaid decision, DIAL have requested that the non-aeronautical revenue accruing from this area will not be eligible for

cross subsidization and as a result the ratio between AERO and NON AERO as certified by them will undergo a change leading to consequential changes in Aero RAB and costs.

(i) **Methodology of incorporating CPI:** DIAL have submitted that in CPI-X methodology of tariff determination, as envisaged in the SSA, the CPI is tariff add-on to cover inflation and in this methodology the efficient way is to determine X factor without considering inflationary increases and only considering real increases in costs which provides an "unadulterated" X factor bereft of inflation. Thereafter the CPI inflation coverage on actual year on year basis is provided which ensures transparency and ease of computation. DIAL stated that the X factor has been computed in the model accordingly and requested that this may be continued.

(j) **Forecast of CPI**: 5 year forecast of CPI-IW at 7% p.a based on Survey of Professional Forecasters as published by RBI on its website.

(k) **Revision of Rate card:** Submission of a revised rate card based on the above changes.

17. Vide submission dated 21.11.2011, DIAL forwarded the details of the amount of interest on debt raised by securitization of DF, collection charges to be paid to airlines on the DF collected from the period 01.04.2009 to 31.10.2011, revenue accruing from the reduction in Gross Floor Area of 8652 sq.mts, deletions arising out of the Authority's Order dated 14.11.2011 and the resultant change in Aero/Non Aero split of the RAB. These submissions have been highlighted under the relevant Regulatory Building Blocks in the following sections.

18. Further, vide their submission dated 25.11.2011, DIAL stated that the financial model has been revised based on the changes discussed with the Authority (as recorded in the minutes of the meeting held on 9th and 17th November).The financial model reworked by DIAL contained the following adjustments/ changes/ revisions:

(i) **Discount for timely payment:** DIAL made a provision for a 2% non discriminatory discount on landing fees for domestic scheduled

landings along with the assumption that the same would be availed in respect of 50% of domestic scheduled landings.

(ii) **CUTE Counter Charges:** CUTE counter charges @ Rs. 500/- per domestic departure movement, with changes incorporated in financial model and changes made in non aero revenue and consequential impact on cross subsidy.

(iii) **US Dollar rate**: A change in assumption in the USD INR exchange rate from Rs.45 per USD in the financial model to Rs.45.26 to determine the USD tariff for tickets booked in foreign currency, based on average RBI reference rate for past 6 months.

(iv) **Interest on DF**: The interest amount on DF till 30th Nov 2011 included as an operating cost in view of the Authority's DF Order dated 14th November 2011.

(v) **Collection Charges on DF:** The revised model considered collection charges on DF as part of DIAL's operating expenditure.

(vi) **Disallowance of 8652 sqmts of Non aeronautical area in T3:** The revised model excluded the revenue from the commercial area of 8652 sqmts disallowed in CIP/office area (As a result of disallowances in the Order No.28/2011-12 dated 14th November 2011).

(vii) **RAB and Operating cost split:** As a result of the disallowances in DF Order, DIAL submitted revised certificates received from the Jacobs Limited and Brahmayya & Co for change in the aeronautical and non-aeronautical mix. Further, for the purpose of RAB, DIAL assumed that the Authority will favorably consider their request of inclusion of Rs.79.49 crores disallowed while determining DF as part of RAB.

(viii) **Rupee Loan Rate:** DIAL updated the cost of rupee term loan to 12.17% for the year 2011-12 based on their Auditors certificate.

(ix) **External Commercial Borrowings:** Revision in the ECB amount and rate as per the Auditors certificate and consequent updation in the model.

(x) **Fuel Throughput:** retaining their assumption that the escalation in fuel throughput charges w.e.f 1st April 2011 will be allowed retrospectively.

(xi) **Future DF Monetization:** Revised schedule of DF monetization based on the DF Order as under: (Amount : Rs. in Crores)

Details / Year	**2011-12**	**2012-13**	**2013-14**
DF as already approved pending monetization	887.35		
Delhi Jal Board payment	39.00	7.50	7.50
ATC Tower	80.00	150.00	120.00
Total	1303.35	157.50	127.50

(xii) **Collection Charges on UDF:** DIAL also incorporated UDF as one of the pricing components and in their assumptions considered the collections charges, payable to the airlines, towards collection of UDF. DIAL have assumed an amount of Rs.3/- per pax as collection charges of UDF.

19. Based on the changes proposed, as indicated in para 18 above, DIAL submitted that the X Factor would now be (-) 874% leading to a higher increase in tariffs. DIAL also submitted a revised Rate Card, indicating the proposed revision in aeronautical charges on this basis, for the Authority's approval. In the alternate, DIAL have submitted separately a Rate Card without Revenue Share on UDF, for the consideration of Authority.

20. During the course of consideration of the proposal DIAL made presentations on the following :

a. Traffic forecast of IGI Airport, New Delhi;
b. Cost allocation between aeronautical and non-aeronautical assets;
c. Cost of equity;
d. Operating and maintenance costs;
e. Joint ventures set up by DIAL;
f. Case studies of some similar airports (Athens);
g. Comparisons of landing charges of various airports in the world, (both in the units of Special Drawing Right and in INR);
h. General tariff filing, and other matters having bearing on the tariff determination.

21. In order to analyse, review and advise on the financial model used by DIAL as a part of their tariff application, the Authority appointed Consultants to

review the financial model prepared and submitted by DIAL. The scope of the assignment included review and assessment of the models' arithmetic accuracy, check for logical and calculation integrity of the models and assistance in undertaking certain sensitivity analyses. The Consultants were tasked with the job of independent cell-by-cell inspection and sheet-by-sheet review of the arithmetic accuracy of formulae and calculations contained in the model including tracing items through the various interlinked sheets and calculations back to the input data and verifying the correct application of addition, subtraction, multiplication and division based on standard business and financial logic; verifying that the links within the model are working accurately; assessing that any macros that govern calculations in the model are running as intended; assessing that the model is logically constructed, internally consistent with respect to calculations and formulae and is fit for the purpose of undertaking analyses of relevant aspects for tariff determination by the Authority; assessing that assumptions in the Financial Model are at one place and that there are no hard coded numbers in calculations in the Financial Model that might influence calculation results in unexpected ways and checking whether the assumptions listed in the assumption sheet are getting correctly reflected in the various others sheets of the financial model.

22. Further, the Consultants were also required to ensure that the Financial Model accurately reflects the concession offered by the Central Government with respect to the key agreement(s), and financial documents as also the provisions in the Act. The tasks here included consistency check for incorporation of provisions from key agreements related to various Building Blocks into the financial model.

23. The Consultants were further required to provide assistance to the Authority in identifying such elements that may need to be certified from auditors /Chartered Accountants of DIAL of key aspects/ assumptions taken from the key / concession agreement(s) and also assist the Authority in reviewing the implications/change in results through sensitivity analysis of various factors like growth rate in traffic, inflation etc., to be conducted with respect to specific changes to assumptions for a factor or even reviewing the drivers and projection bases for such factors.

24. During the course of the review and clean-up of the financial model, DIAL were also requested to furnish to the Authority, certifications from its Statutory Auditors in support of figures taken as the base for their projections/forecast.

25. As brought out above, the Authority has, after an extensive stakeholder consultation, issued an Order (No.28/2011-12 dated 14.11.2011) vide which it has determined the allowable project cost as Rs.12,502.86 crores. Consequently, the figure of Rs.12,502.86 crores has been used as the base figure in the present consideration.

26. The analysis of the financial model (based on the model furnished with DIAL's submission dated 04.10.2011), has been carried out by the Consultants based on the changes in the assumptions and the Authority's guidance. The findings, deliberations, change in assumptions and proposed position of the Authority in respect of each item of the Regulatory Building Block are captured in the following sections.

27. The financial model developed by DIAL was analyzed by the Consultants. At the relevant time, DIAL had projected a 'X' factor of (-)775% considering a onetime increase in the aeronautical tariffs (DIAL's submission dated 04.10.2011, considering the period of charging from 01.02.2012 and higher cost of power owing to sharp increase in power tariff). The financial model was cleaned up based on the issues identified by the Consultants (report dated 03.11.2011) in a meeting held with DIAL on 09.11.2011. The model was further cleaned up in a meeting held on 17.11.2011 and 24.11.2011, based on the observations made by the Consultants and auditors certifications furnished by DIAL in respect of various elements in the proposal. Subsequent to the changes made in the financial model, the cumulative impact of changes made resulted in the value of X factor being updated to (-)774.30% which translates into a X factor of (-)137.94%, considering an equated yearly increase w.e.f.01.02.2012.

28. This cleaned up model has been used for sensitivity analysis and all submissions made by DIAL post the cleaning up or those made earlier but which were not mutually agreed have been considered as part of sensitivity analysis in the relevant sections / building blocks.

29. As mentioned above, DIAL indicated in their submissions that the tariffs for Delhi airport were fixed in 2001 and have not been revised thereafter except for a 10% increase made on 16.02.2009 by the MoCA ***(in accordance with Clause 1 of Schedule 6 of the SSA, after completion of 2 years).*** They submitted that the revenue streams do not support a capital investment of the scale and magnitude undertaken by them. DIAL indicated that they were losing very heavily on the airport project ***(almost Rs. 2 crores per day);*** and that they have incurred a net loss of Rs.450 Crores for the year ended 31.03.2011; and that, therefore, tariff determination needs to be done very expeditiously.

30. It is also to be stated that the MoCA, vide its letter no.AV.20036/014/2009-AD dated 06.10.2009, had forwarded a request received from the DIAL (letter ref.no. DIAL/2009- 10/COMM/0625 dated 10.07.2009), for a 10% increase in aeronautical charges at IGI Airport, New Delhi with effect from 03.05.2009 for the Authority's consideration. Aforesaid request was made by DIAL on the grounds that as per Schedule 6 of the SSA, entered in to between the Central Government and DIAL, the regulatory authority/Government of India, will set the aeronautical charges from the commencement of the 4th year from the effective date, i.e., 03.05.2006 and for every year thereafter subject always to the condition that, at least, nominal increase of 10% of base airport charges will be available to DIAL.

31. DIAL interpreted the above provisions to mean that the Authority/GoI are bound to permit an increase of 10% of the Base Airport Charges on the commencement of the 4th year and every year thereafter and, accordingly, approval was solicited to increase the airport charges by 10% w.e.f 03.05.2009. DIAL was earlier permitted a 10% increase in airport charges w.e.f. 16.02.2009, by the Ministry, in terms of Clause 1 of the Schedule 6 after completion of two years.

32. The request of DIAL was examined in detail by the Authority. It was noted that the 'Base Airport Charges' are the charges which were prevalent on 26.04.2006 (as set out in Schedule 8) and that a nominal increase of 10% had already been permitted by the MoCA over the Base Airport Charges (BAC) in terms of Clause 1 of Schedule 6 and that this increase could be termed as ***"permitted nominal increase of 10%"*** contemplated in Schedule

6 of the SSA. Further, the second part of Clause (2) of Schedule 6 states that "*a permitted nominal increase of ten (10) percent of Base Airport Charges will be available to the JVC for the purposes of calculating Aeronautical Charges in any year after the commencement of the fourth year"*. Thus, on a co-joint reading of Clauses 1 & 2, it is evident that as per Clause (1) a nominal increase of 10% is to be permitted on completion of first two years, subject to certain conditions, and as per Clause (2), this permitted nominal increase of 10% will, at the least, be available to the JVC for the purposes of calculating airport charges from fourth year onwards. Expressed differently, in terms of first part of Clause 2, the Authority/GOI are required to set aeronautical charges in accordance with Clause 3.1.1 read with the principles set out in Schedule 1 of SSA from 4th year onwards and by virtue of second part the nominal increase of 10% permitted (in terms of Clause 1) is saved. The Authority also noted that the request of DIAL, at least in some part of their communications, appeared to be for an increase of 10% on the prevalent Airport Charges, whereas the second part of the Clause 2 of Schedule 6 mentions an increase of 10% on the BAC, which in the Authority's view had already been permitted by the MoCA in terms of Clause 1 of Schedule 6.

33. The Authority had observed that, if it is accepted that Clause 2 contemplates an year on year increase of 10% from the commencement of 4th year onwards, it would mean that the GOI have agreed to a doubling of BAC in about 7 years time irrespective of the actual determination in terms of principles set out in Schedule 1. Thus, on a co-joint reading and harmonious construction of the provisions of Schedule 6 of SSA, the Authority found that the following scheme is revealed:-
    (a) The airport charges, as existing on 26.04.2006 (which are set out in Schedule 8) will continue for first two years from the effective date.
    (b) In the event the JVC fully completes and commissions all the mandated facilities required to be completed during the first two years, it would be allowed a tariff increase of 10% in nominal terms from the beginning of 3rd year from the effective date, as an incentive.
    (c) From the commencement of 4th year onwards, tariff will be set by the Authority/GOI as per principles set out in Schedule 1 subject to the

condition that, at the least, the nominal increase of 10% of the BAC permitted during the third year, as incentive, will continue to be available to the JVC.

34. In view of the above, the Authority felt that there was no warrant in Schedule 6 of SSA for an automatic year on year increase of 10% in airport charges from the commencement of fourth year onwards. Accordingly, the Authority rejected the request made by DIAL for a 10% increase in aeronautical charges at IGI Airport, New Delhi, with effect from 03.05.2009, vide Order No.03/2010-11 dated 21.05.2010.

35. DIAL appealed against the said Order of the Authority before the Honble AERA Appellate Tribunal vide Appeal No.03/2010. The Hon'ble Tribunal, disposed off the said Appeal vide its final Order dated 11.05.2011 and directed that:

"Therefore, without expressing any opinion on the merits of the case we set aside the impugned order and remit the matter to the Regulatory Authority to pass a reasoned order after grant of opportunity to the parties for hearing and to place further materials, if any. The exercise shall be undertaken within a period of ten weeks. If the Regulatory Authority requires any material to be produced it is but imperative that the same shall be supplied by the appellant. We note the stand of Mr. Nanda that a final determination has to be done in each case."

36. Pursuant to the Order dated 11th May, 2011, the Authority filed an Interim Application (IA) dated 18th July, 2011, before the Hon'ble Tribunal praying that the instead of merely confining its determination to the 10% increase issue, it may proceed with the tariff determination which would be as per the mandate of the Act as also in public interest and if at such final stage any party is aggrieved they would be free to approach the Hon'ble Tribunal at that stage as per the provisions of the Act.

37. Further, the Authority (in the IA) clarified that it had already initiated the process for tariff determination in respect of DIAL in January'2011, wherein DIAL was requested to make a stylized tariff filing, as far as possible with actual numbers, so that the Authority could thereafter consider the matter and then take up the actual tariff determination. DIAL initially submitted only their understanding of various provisions of SSA and had filed the tariff application vide letter dated 20.06.2011; and that the Authority was

examining the proposal but since this filing had been done towards the end of June 2011, the Authority would not be in a position to undertake and complete the tariff determination within the timeline of 10 weeks as directed by the Hon'ble Tribunal. The Authority, accordingly, requested for modification of the timeline and for permission to decide the entire tariff for aeronautical charges rather than merely the 10% issue.

38. The IA filed by the Authority is pending consideration of the Hon'ble Tribunal. However, in the meantime, it has been possible for the Authority to examine in detail the tariff proposal submitted by DIAL. In accordance with its prayer, the Authority has considered the 10% increase issue as part of the present exercise.

39. The Authority has on several occasions, including in the meetings held on 13.12.2011, 29.12.2011, 30.12.2011, 02.1,2012 and 03.01.2012 discussed the proposal submitted and further submissions made by DIAL. The Authority's consideration and its tentative views in respect of all relevant issues are discussed in subsequent sections.

B. Framework for Determination of Tariffs for IGI Airport, New Delhi

40. In terms of the Airports Economic Regulatory Authority of India Act, 2008 (the Act) the main functions of the Authority, in respect of the major airports, are as under:

    a. Determination of the tariff for the aeronautical services;
    b. Determination of the amount of the development fees including User Development Fee;
    c. Determination of the amount of the passenger service fee levied under rule 88 of the Aircraft Rules, 1937 made under Aircraft Act, 1934; and
    d. Monitoring the set performance standards relating to quality, continuity and reliability of service as may be specified by the Central Government or any authority authorised by it in this behalf.

41. Section 13 (1) (a) requires the Authority to determine tariff for the aeronautical services taking in to consideration:

    (i) the capital expenditure incurred and timely investment in improvement of airport facilities;
    (ii) the service provided, its quality and other relevant factors;
    (iii) the cost for improving efficiency;
    (iv) economic and viable operation of major airports;
    (v) revenue received from services other than the aeronautical services;
    (vi) concession offered by the Central Government in any agreement or memorandum of understanding or otherwise;
    (vii) any other factor which may be relevant for the purposes of the Act.

42. As per Section 13 (1) (a) of the Act, the Authority is to determine the tariff for the aeronautical services taking into consideration, inter-alia, ***"(vi) the concession offered by the Central Government in any agreement or memorandum of understanding or otherwise".*** In so far as IGI Airport is concerned, the principles of tariff fixation and mechanism thereof have been laid down in clause 3.1 read with Schedule 1 of the SSA.

43. The Authority vide its Order No. 13/2010-11 dated 12th January 2011 and Guidelines embodied in Direction No.5/2010-11 issued on 28th February 2011 had laid down the overall approach which it would adopt for regulation of aeronautical services provided by the Airport Operators. However, in view of the provisions of the Section 13 (1) (a) (vi) of the Act, the Authority had indicated that it would analyse and assess the implications of the principles and mechanics, relating to tariff fixation, contained in the concession(s) of these airports and determine separately

the form and manner in which its directions would be applicable to the Indira Gandhi International Airport, New Delhi and Chhatrapati Shivaji International Airport, Mumbai.

44. In the meantime the Authority had vide Order No.10/2010-11 dated 10.12.2010 (relating to approval of X-Ray charges for domestic cargo levied at IGI Airport, New Delhi) and Order No.13/2010-11 dated 12.01.2011, inter alia, felt that OMDA signed between DIAL and AAI was **not a "concession offered" by the Central Government.**

45. In this background, MoCA, vide letter No.AV.24011/001/2011-AD dated 30.5.2011, informed the Authority that ***"……..OMDA can be considered as the principal document, because the right to Operate, Maintain, Develop, Construct, Upgrade, Modernize, Finance and Manage the airport has been given to the JVCs only under the provisions of clause 2.1 of OMDA. Hence, without OMDA there is no utility of other agreements. Further, in all other agreements cross referencing has been done to the provisions of OMDA for interpretations of the provisions of other transaction documents. Also the definition of the Project Agreements has only been inserted in Clause 1.1 of OMDA and thus this includes all other Transaction Documents."***

46. The Authority has given full consideration to the advice of MoCA. The Authority noted Section 13(1)(a)(vi) of the Act, speaks of a concession offered by the Central Government which implies that the relevant document:

    (i) **should be a "Concession"**
    (ii) **"Concession" should have been offered by the Central Government;** and
    (iii) **"Concession" s**hould be in the form of any agreement or memorandum of understanding or otherwise.

47. Further, the Authority noted that the provisions of the Act do not bind the Authority to the provisions of any agreement nor circumscribe its process of tariff determination on that account. Section 13 (1)(a)(vi) of the Act, however, enjoins upon the Authority to take into consideration the concession offered by the Government in any agreement, memorandum of understanding or otherwise. Further, **a "concession is a government grant**

for specific privileges" (Black's Law Dictionary, Ninth Edition). The "airport" being a subject matter of the Central Government (Entry 29, List I, Seventh Schedule of the Constitution), that Government alone has the powers to grant concession in respect of the airports. This position has been clearly recognized and stated in the Greenfield Airport Policy, 2008 of the Central Government.

48. As stated hereinabove, the Authority has deliberated on this matter vide Order No. 10/2010-11 and Order No. 13/2010-11 regarding the issue of OMDA and concessions offered by the Central Government as it is an agreement between DIAL and AAI. Position taken in Order No.10/2010-11 has not been challenged by way of any appeal. Appeals filed by DIAL and MIAL against Order 13/2010-11 have also been disposed off by the Hon'ble Tribunal.

49. However, the Authority is cognizant of the fact that OMDA is an important document governing the relationship between contracting parties and functioning of the airport. Furthermore, as indicated in para 45 above, the MoCA has stressed the primacy of OMDA amongst the Project Agreements as being an important document.

50. It is relevant to mention here that sub clause (vii) of Section 13(1)(a) also indicates that the Authority can take into consideration ***"any other factor which may be relevant for the purposes of this Act"***. In view of the stated primacy of OMDA amongst the Project Agreements and the fact that SSA is at many places cross referenced to OMDA, the Authority has decided to take into consideration the provisions of OMDA, while determining tariff for IGI Airport, in terms of Section 13(1)(a)(vii)of the Act. However, while doing so, it would have to be ensured that the provisions of OMDA are considered only to the extent these are not inconsistent with the provisions of the Act; or to the extent these could be reconciled with the provisions of the Act.

51. Similarly, as regards other agreements, (i.e., other than OMDA & SSA) the provisions therein have also been considered, wherever possible, by the Authority to the extent these are relevant for tariff determination in terms of Section 13 (1) (a) (vii) of the Act.

C. Guiding Principles for the Authority

52. The Authority vide its Order No. 13/2010-11 dated 12th January 2011 and Guidelines embodied in Direction No.5/2010-11 issued on 28th February 2011 had laid down the overall approach which it would adopt for regulation of aeronautical services provided by the Airport Operators. However, in view of provisions of Section 13(1)(a)(vi) of the Act, the Authority had indicated that it would analyze and assess the implications of the principles and mechanics, relating to tariff fixation, contained in the concession(s) of these airports and determine separately the form and manner in which its directions would be applicable to the Indira Gandhi International Airport, New Delhi and Chhatrapati Shivaji International Airport, Mumbai.

53. Following agreements (collectively referred to as the Project Agreements) were entered in to at the time of restructuring of the IGI airport:

    (i) Operation, Maintenance, Development Agreement (OMDA)
    (ii) State Support Agreement (SSA)
    (iii) Shareholders' Agreement
    (iv) CNS-ATM Agreement
    (v) Airport Operator Agreement
    (vi) State Government Support Agreement
    (vii) Lease Deed
    (viii) Substitution Agreement
    (ix) Escrow Agreement

54. As indicated in para 45 above, MoCA have advised that the concession offered by the OMDA and any of the other agreements listed under Clause 1.1 of OMDA, need to be considered as the "concession offered" by the Central Government in terms of Section 13 (1) (a) (vi) of the Act. The position in respect of consideration of the OMDA, and other agreements (i.e., other than OMDA & SSA) as a relevant factor in terms of Section13 (1) (a) (vii) has been discussed, in paras 50 and 51 above, and the Authority has taken these in to consideration while determining tariffs for aeronautical services under Section 13 (1) (a) of the Act.

55. Provisions regarding "Tariff and Regulation" have been made in Chapter XII of OMDA. It is stated in clause 12.1.2 that "*The JVC shall at all times ensure that the Aeronautical Charges levied at the Airport shall be as*

determined as per the provisions of the State Support Agreement." Thus, in respect of tariff, cross referencing has been done in OMDA to the provisions of SSA.

56. In clause 3.1 of the SSA following provisions have been made regarding tariff:

" 3.1.1 GOI's intention is to establish an independent airport economic regulatory authority (the "Economic Regulatory Authority"), which will be responsible for certain aspects of regulation (including regulation of Aeronautical Charges) of certain airports in India. GOI agrees to use reasonable efforts to have the Economic Regulatory Authority established and operating within two (2) years from the Effective Date. GOI further confirms that, subject to Applicable Law, it shall make reasonable endeavours to procure that the Economic Regulatory Authority shall regulate and set/ re-set Aeronautical Charges, in accordance with the broad principles set out in Schedule 1 appended hereto. Provided however, the Upfront Fee and the Annual Fee paid/payable by the JVC to AAI under the OMDA shall not be included as part of costs for provision of Aeronautical Services and no pass-through would be available in relation to the same.

3.1.2 The Aeronautical Charges for any year during the Term shall be calculated in accordance with Schedule 6 appended hereto. For abundant caution, it is expressly clarified that the Aeronautical Charges as set forth in Schedule 6 will not be negotiated post bid after the selection of the Successful Bidder and will not be altered by the JVC under any circumstances."

57. Schedule 1 of the SSA provides that "…*in undertaking its role, AERA will (subject to Applicable Law) observe the following principles:*

1. <u>Incentives Based:</u> The JVC will be provided with appropriate incentives to operate in an efficient manner, optimising operating cost, maximising revenue and undertaking investment in an efficient, effective and timely manner and to this end will utilise a price cap methodology as per this Agreement.

2. <u>Commercial:</u> In setting the price cap, AERA will have regard to the need for the JVC to generate sufficient revenue to cover efficient operating costs, obtain the return of capital over its economic life and

achieve a reasonable return on investment commensurate with the risk involved.

3. *Transparency: The approach to economic regulation will be fully documented and available to all stakeholders, with the Airports and key stakeholders able to make submissions to AERA and with all decisions fully documented and explained.*
4. *Consistency: Pricing decisions in each regulatory review period will be undertaken according to a consistent approach in terms of underlying principles.*
5. *Economic Efficiency: Price regulation should only occur in areas where monopoly power is exercised and not where a competitive or contestable market operates and so should apply only to Aeronautical Services. Further in respect to regulation of Aeronautical Services the approach to pricing regulation should encourage economic efficiency and only allow efficient costs to be recovered through pricing, subject to acceptance of imposed constraints such as the arrangements in the first three years for operations support from AAI.*
6. *Independence: The AERA will operate in an independent and autonomous manner subject to policy directives of the GOI on areas identified by GOI.*
7. *Service Quality: In undertaking its role AERA will monitor, pre-set performance in respect to service quality performance as defined in the Operations Management Development Agreement (OMDA) and revised from time to time.*
8. *Master Plan and Major Development Plans: AERA will accept the Master Plan and Major Development Plans as reviwed and commented by the GOI and will not seek to question or change the approach to development if it is consistent with these plans. However, the AERA would have the right to assess the efficiency with which capital expenditure is undertaken.*
9. *Consultation: The Joint Venture Company will be required to consult and have reasonable regard to the views of relevant major airport users with respect to planned major airport development.*
10. *Pricing responsibility: Within the overall price cap the JVC will be able to impose charges subject to those charges being consistent with these pricing principles and IATA pricing principles as revised from time to time including the following:*

    (i) Cost reflectivity: Any charges made by the JVC must be allocated across users in a manner that is fully cost reflective and relates to facilities and services that are used by Airport users;

    (ii) Non discriminatory: Charges imposed by the JVC are to be non discriminatory as within the same class of users.;

    (iii) Safety: Charges should not be imposed in a way as to discourage the use of facilities and services necessary for safety;

    (iv) Usage: In general, aircraft operators, passengers and other users should not be charged for facilities and services they do not use."

58. It appears that the principles laid out in the SSA are broadly consistent with the Authority's regulatory philosophy and approach as stated in Order No.13/2010-11 and the Guidelines embodied in Direction No.05/2010-11 dated 28.02.2011. However, there are certain important provisions in Schedule 1 of SSA which are at variance with the approach decided by the Authority in respect of other airports which can be summarized as under:

    (i) Shared Till – 30% of the gross revenue generated by the JVC from revenues share assets shall be used to subsidise Target Revenue. The costs in relation to such revenue shall not be included while calculating aeronautical charges.

    (ii) Hypothetical RAB – The opening RAB for the first regulatory period would be the sum total of the Book Value of the Aeronautical Assets in the books of the JVC and the hypothetical regulatory base computed using the then prevailing tariff and the revenues, operation and maintenance cost, corporate tax pertaining to Aeronautical Services at the Airport, during the financial year preceding the date of such computation.

    (iii) No cost pass through – (read with Clause 3.1.1)-the Upfront Fee and the Annual Fee paid/payable by the JVC to AAI under the OMDA shall not be included as part of costs for provision of aeronautical services and no pass through would be available in relation to the same.

59. In addition to Schedule 1, some relevant provisions regarding Aeronautical Charges have been made in Schedule 6 of the SSA as well, which are as under:

    (i) The first control period to commence from the commencement of the fourth year after the Effective Date
    (ii) Year on year determination of tariff

60. It is observed that the draft of the SSA formed part of the bid documents in respect of IGI Airport. Further, the provisions of the SSA have to be read together and consideration of such provisions in isolation may tantamount to cherry picking. In view of this, it has been a consistent view of the Authority that the provisions of the SSA should be taken on board as far as these are consistent with the provisions of the Act. Further, the provisions

of SSA should also be reconciled to the extent possible with the provisions of the Act. It is only where the provisions of the SSA are not consistent with the Act and cannot be reconciled thereto, a deviation may need to be made.

61. In view of the:

(i) provisions of Section 13 (1) (a) (vi) and (vii) of the Act; and

(ii) the fact that with respect to evolving its regulatory philosophy and approach for economic regulation of Airport Operators to give effect to its mandate under the Act, the Authority had undertaken extensive consultations with stakeholders, carefully perused all submissions, views and opinions expressed by stakeholders and had issued its Order No. 13/2010-11 dated 12th January 2011 in the matter;

the Authority proposes to adopt the following approach towards determination of tariffs for aeronautical services provided by DIAL:

(i) Be guided by provisions of the SSA read with the provisions of OMDA and other agreements as far as these are consistent with provisions of the Act; and

(ii) Wherever possible, have recourse to principles of tariff determination contained in Order No. 13/2010-11 dated 12th January 2011 and Guidelines embodied in Direction No5/2010-11 issued on 28th February 2011.

D. Issues under consideration

1. Regulatory Period

62. DIAL have made a five year tariff filing for the five-year block comprising 2009-10 to 2013-14 as the first regulatory period (comprising past financial years 2009-10 and 2010-11, current financial year 2011-12 and future financial years 2012-13 and 2013-14). In the original proposal a collection period of the revised tariff has been considered from 1st September 2011 to 31st March 2014. Subsequently the collection period has been revised and indicated as 1st February 2012 to 31st March 2014. Considering the timelines involved, the Authority considers that the collection period w.e.f 01.04.2012 may be practicable.

63. Section 13 (2) of the Act requires that *"the Authority shall determine the tariff once in five years and may if so considered appropriate and in public interest, amend, from time to time during the said period of five years, the tariff so determined."*

64. The SSA authorizes DIAL, under clause 3.1.2 and Schedule 6, to levy Aeronautical Charges for various Aeronautical Services at the rates set forth in Schedule 8, for a period of two years from the Effective Date. Further, Schedule 6 also requires that from the commencement of 4th year after the Effective Date, Aeronautical Charges will be set by Economic Regulatory Authority/GoI in accordance clause 3.1.1 read with Schedule 1 of the SSA.

65. It is submitted that, one of the Principles of Tariff Fixation, provided under Schedule 1 of the SSA, pertains to provision of: "*appropriate incentives to operate in an efficient manner, optimising operating cost, maximising revenue and undertaking investment in an efficient, effective and timely manner and to this end will utilise a price cap methodology as per this Agreement (SSA)"*.

66. The principle of Consistency refers to "*pricing decisions in each regulatory review period*" and the illustrative example relates to a five-year regulatory period.

67. In view of the above, it is apparent that in terms of the provisions of Section 13 (2) of the Act, and consistent with provisions of the SSA, tariffs would need to be determined for a five-year regulatory period.

68. Another issue which arises for the consideration of the Authority is the date of commencement of the first regulatory period. In this regard the guidance is available in Schedule 6 of the SSA which envisages that:

"From the commencement of the fourth (4th) year after the Effective Date and for every year thereafter for the remainder of the Term, Economic Regulatory Authority / GoI (as the case may be) will set the Aeronautical Charges in accordance with Clause 3.1.1 read with Schedule 1 appended to this Agreement……."

69. Schedule 1 of the SSA also provides that

"If despite all reasonable efforts of the GOI, AERA is not in place by the time required to commence the first regulatory review, the Ministry of Civil Aviation will continue to undertake the role of approving aero tariff, user charges, etc."

70. It may be observed that clause 3.1.2 and Schedule 6 of the SSA provide for tariffs to be determined from the commencement of fourth year after the "Effective Date" which has been defined as under, as per clause 1.1 of the OMDA:

> ***"Effective Date"*** *means the date on which the Conditions Precedent have been satisfied or waived according to the terms hereof.*

3rd May 2006 has been taken as the Effective Date for DIAL. This would imply that the first regulatory period should technically commence from 3rd May 2009 and end on 2nd May 2014.

71. In terms of requirements of information for tariff determination, information already / normally maintained by DIAL and other entities for financial years followed in our country i.e. 1st April to 31st March of the subsequent year, the above periodicity would imply that :

    (i) The information would need to be segregated for a number of periods:

- 3rd May 2009 – 31st March 2010;
- 1st April 2010 – 2nd May 2010;
- 3rd May 2010 – 31st March 2011;
- 1st April 2011 – 2nd May 2011;
- 3rd May 2011 – 31st March 2012;
- 1st April 2012 – 2nd May 2012;
- 3rd May 2012 – 31st March 2012;
- 1st April 2013 – 2nd May 2013;
- 3rd May 2013 – 31st March 2014
- 1st April 2014 – 2nd May 2014;

  at times requiring adoption of certain approximations and assumptions especially on operational data;

(ii) Analyses of such information would not necessarily correspond to analyses of other information that may be available on relevant aspects.

72. In view of the above, the Authority is of the opinion that it is more practicable to consider the regulatory period from 1st April 2009 to 31st March 2014, i.e., in line with the normal Financial Years(s) reckoned in the country. This approach would imply consideration of an additional period from 1st April 2009 to 2nd May 2009 (a period of 32 days) in the first regulatory period while implying consideration of the period from 1st April 2014 to 2nd May 2014 (a period of 32 days) in the next regulatory period. However, in view of the issues in data segregation and analyses mentioned above, the consideration of the regulatory period from 1st April 2009 to 31st March 2014 is more practicable. DIAL have also made its filings accordingly.

73. In view of the position indicated above, determination of tariffs for the first regulatory period for DIAL will be effected during the 3rd year of the regulatory period. Also, determination and notification of revised tariffs for aeronautical services, after stakeholder consultation, would only be possible towards the end of the current FY 2011-12. As stated hereinabove the new tariff are likely to be operationalized only w.e.f. 01.04.2012.

74. DIAL, in one of its submissions, suggested that to smoothen the price path, the Authority may consider elongating the tariff regime over the next regulatory period so that the increase in tariffs would not be affected over the next two years but over the next seven years. However, this proposal does not appear to be acceptable for the following reasons:

(i) Section 13(2) of the Act and SSA contemplate a five year regulatory period. While tariff can be amended within this period of five years in public interest, there is no provision in law to extend the regulatory period.

(ii) In the instant case, DIAL have estimated the Target Revenue for each of the five years in the regulatory period, only its recovery is proposed to be spread over the next regulatory period. If this proposal is accepted, it would mean that in the next regulatory period, the users would have to pay for not only the Target Revenue and Price Cap determined for that regulatory period but also the balance of the present regulatory period. It is possible that due to the fact that DIAL have only recently undertaken a major capital expansion programme, the Target Revenue requirement for the next regulatory period may not be as high as the current period. Further, the recovery would be spread over the entire regulatory period whereas, in the present case, three years would have already elapsed by the time recovery of revised tariff commences. However, in the absence of estimates/ figures for the next regulatory period, it is not possible to take a definitive view about the expected price path therein. In the circumstances, if this proposal were to be accepted, the Authority would be open to the challenge that it has postponed the problem without any factual data based evaluation.

(iii) DIAL have proposed that the recovery, if spread over the next regulatory period, should be allowed on NPV basis. Thus, it would involve a proportionately higher burden on the users though the price path may be smoothened to a certain extent.

75. In view of the above, the Authority proposes that the first regulatory period may be reckoned from 1st April 2009 to 31st March 2014 and recovery of the revised tariff may be contemplated with effect from 1st April, 2012 up to 31st March 2014, i.e., the end of the first regulatory period.

2. Regulatory Building Blocks

76. DIAL have determined the Target Revenue (TR) by aggregating terms in the following formula:

$$TR = RAB_i \times WACC_i + OM_i + D_i + T_i - S_i$$

Where;

- **RAB:** Regulated Asset Base pertaining to Aeronautical Assets only. The Assets other than Aeronautical Assets will be excluded from the scope of RAB.
- **WACC:** Weighted average cost of capital
- **OM:** Efficient Operating and Maintenance costs pertaining to aeronautical services.
- **D:** Annual Depreciation charged on aeronautical assets based on depreciation reference rates prescribed as per the Companies Act, 1956
- **T:** Corporate Income taxes pertaining to aeronautical services only.
- **i:** Number of year in the regulatory control period
- **S:** Subsidy to the extent of 30% of the Gross Revenue generated from the Revenue Share Assets, which are defined to include:
  a. Non Aeronautical Assets;
  b. Assets required for provision of aeronautical related services not included in the Non Aeronautical Assets

77. DIAL's submissions and the observations on the individual elements / regulatory building blocks in the above formula are presented in the following sections / paragraphs.

a. Regulatory Asset Base (RAB)

Project Cost

78. DIAL submitted a project cost of Rs.12,857 crores in respect of modernization of IGI Airport, New Delhi as part of their tariff application. DIAL stated that this project cost of Rs.12,857 crores has been approved by the DIAL Board and the same was submitted to the Authority for approval in March' 2010. The Authority vide its Consultation paper No.02/2011-12 dated 21.04.2011 considered an amount of Rs.12760 Crores as the final project cost. DIAL further submitted that they have responded to the proposed disallowances and requested the Authority to consider the entire amount for tariff calculation even if the some part is disallowed for DF purposes. DIAL, accordingly, considered for the purpose of determining its RAB an amount of Rs.12,857 crores while making appropriate adjustment for removing Upfront fee to AAI while determining RAB.

Observation on Project Cost

79. The capital cost for the expansion and modernization of DIAL, as per the finalized Master Plan, was estimated to be Rs.8975 crores in December 2007. However, during the construction phase there was an escalation of cost over the initial estimate. Finally, according to the submissions made by DIAL, the project cost increased to Rs. 12,857 Crores. The Authority had considered this issue in detail and issued a Consultation Paper No.02/2011-12 on 21st April, 2011 indicating that, tentatively and subject to the stakeholder's comments, it was inclined to take the final project cost at Rs.12059.01 Crores at stage 1. After including the cost not incurred (as on 31.03.2010) amounting to Rs.701 crores, the total allowable project cost was tentatively indicated to be Rs.12760.01 crores at Stage 2. Full details of the reasoning of the Authority are given in the said Consultation Paper No.02/2011-12 dated 21st April, 2011.

80. The Authority has, after considering the stakeholders comments on the aforementioned Consultation Paper, issued the DF Order thereby determining the allowable project cost, the rate and period of levy of DF.

The allowable project cost as per the DF Order is Rs.11801.86 crores at Stage 1 and Rs.12502.86 crores at Stage 2 (including costs not incurred as on 31.03.2010).

New ATC Tower

81. DIAL, in their tariff application, projected a capitalization of Rs.350 crore in 2013-14 on account of New ATC Tower and associated works. Subsequently, DIAL also submitted a revised monetization schedule for DF in 2011-12, 2012-13 and 2013-14 corresponding to the New ATC Tower amounting to Rs. 80 crores, Rs. 150 crores and Rs. 120 crores, respectively in the three years.

82. MoCA had informed, at the time of consultation in respect of levy of DF, that in terms of the CNS-ATM agreement, DIAL are obligated to construct the New ATC tower and associated facilities and, therefore, needed to bear the cost.

83. However, the ATC Tower would not be used by DIAL for provision of any aeronautical service(s) that need to be considered under the present multi-year tariff determination. The shifting/ construction of the New ATC Tower has been proposed pursuant to the CNS-ATM Agreement between AAI and DIAL. Accordingly, though the cost of Rs. 350 crores has been considered as part of the Total Project Cost for the purposes of levy of DF, the same cannot be included in the capital expenditure/RAB estimates for the purpose of determination of tariffs for aeronautical services provided by DIAL.

84. The Authority, accordingly, proposes to disallow the projected capitalization of Rs.350 crores related to the New ATC Tower in RAB in 2013-14 for the purpose of determination of aeronautical tariffs. Consequentially, the monetization of DF related to ATC tower as submitted by DIAL is not being considered for the purpose of the current determination of aeronautical tariff.

Computation of Regulatory Asset Base (RAB)

85. DIAL have computed the RAB, representing aeronautical assets, for the purpose of their tariff application, as under:

RAB at the start of a year/period (Opening RAB) **+** ***Projected capital investment*** **-** ***Projected depreciation*** **=** ***RAB at the end of a year/period (Closing RAB)***

86. DIAL calculated RAB for each year as the average of the opening and the closing RAB. Changes in RAB have been submitted to have been computed by applying the aforesaid methodology. Further, the return has been proposed to be calculated on average RAB.

(Amount in Rs. Crores)	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Opening RAB	-	58	132	2,987	3,677	10,538	9,312	8,986
Investment	60	77	1,784	835	8,325	606	181	550
Deletion/ Disallowance						18		
Depreciation & Amortization	1	4	48	144	282	365	370	404
Assets funded out of DF	-	-			1,827	1,449	138	109
Financing Allowance During Construction					645			
Hypothetical Asset Base	-	-	1,119					
Closing RAB	58	132	2,987	3,677	10,538	9,312	8,986	9,023
Average RAB for Return	29	95	1,559	3,332	7,108	9,925	9,149	9,004

87. DIAL have applied following principles for computation of RAB:

"

- *Opening RAB is calculated based on the historical cost of assets created by the airport. In addition to above a value is determined on the assets acquired on privatization (Hypothetical Asset Base) in line with the SSA.*
- *Working Capital is not included in the RAB.*
- *Capital expenditure during the relevant year is added to the RAB.*
- *In addition to the interest during construction, additional capitalization for the financing allowance being the amount due on equity invested (including quasi-equity), foregone at the WIP stage, has been considered as part of RAB as Financing Allowance. However the same has been considered only up to the date of actual capitalization of assets.*
- *Upfront fees and pre-operative expenses, incurred by DIAL towards bid preparation are considered as inadmissible and therefore not included in RAB."*

88. Further, the following approach has been adopted by DIAL for firming up RAB during the regulatory period:

"*(i)* Financial year 2009-10 has been taken as the first year of the control period.

(ii) Opening RAB has been firmed up by aggregating the aeronautical assets as on the last day of the previous year.

(iii) Addition and deletion thereafter during 2009-10 and 2010-11 has been taken as per audited financial statements.

(iv) For the financial year 2011-12, 2012-13 and 2013-14, Capex is projected and added to the respective years.

(v) Apart from above an addition of financing allowance on WIP during construction period, to extent of Rs. 645.1 Crores, has been added to the RAB.

(vi) Further, an amount of Rs.17.50 Crores spent towards Runway 10/28 rehabilitation, has been reduced from RAB in FY 2011-12 due to

disallowance of the same as capital expenditure proposed by AERA (and the same has been treated as revenue expenditure).

(vii) Additions in 2011-12 and onwards are on account of:

a. Project cost pending capitalization and also finalization due to on-going closure of contracts, etc.

b. An amount of Rs.93 Crores for 2011-12, Rs.183 Crores for 2012-13 and Rs.200 Crores for 2013-14 towards Capex that would be necessitated at the airport.

c. On-going New ATC tower works"

89. DIAL have provided the following year-wise and category-wise asset addition figures, as on 31st March 2011 (Rs in crores) as follows:

Category	2006-07	2007-08	2008-09	2009-10	2010-11
Building	1.43	7.46	372.16	508.23	5,487.05
Plant & Machinery	4.04	3.59	382.44	128.17	3,381.57
Computer	4.76	8.95	32.15	25.91	7.4
Furniture & Fixtures	1.96	1.04	15.02	18.14	104.2
Intangibles	195.5	-	-	257.07	-
Office Equipments	2.66	5.36	14.06	8.86	2.41
Vehicles	1.14	12.46	2.1	0.46	0.86
Land	-	-	-	-	-
Runway, Taxiway & Apron	-	45.55	986.55	24.27	499.07
Total	**211.50**	**84.41**	**1804.47**	**971.12**	**9482.54**

Observations on the computation of RAB

90. While reviewing the submissions made in respect of computation of RAB, DIAL were requested to submit clarifications/Auditor Certificates in respect of the following:

(i) The historical year-wise and category-wise Asset Addition and CWIP figures; and

(ii) The historical year-wise and category-wise breakup of deletions and forex adjustment to the fixed assets

91. In response, DIAL have submitted the following certificates for consideration of the Authority:

(i) The historical year-wise and category-wise Asset Addition and CWIP figures.

(ii) The historical year-wise and category-wise breakup of deletions and forex adjustment to the fixed assets

(iii) The historical year-wise and category-wise Asset Addition and CWIP figures in accordance with Income Tax Act, 1961

92. The Auditor certifications for category-wise historical asset additions and certain differences identified in the category-wise breakup as well as year-wise total asset additions have been reviewed. Consequently, the historical year-wise and category-wise asset addition values were updated in the financial model submitted by DIAL, based on the Auditor's certificate.

93. The year-wise and category-wise asset addition figures, as on 31st March 2011, based on DIAL's Auditor Certificate are presented as below:

	2006-07	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Building	1.43	47.71	477.03	482.74	5,672.34
Plant & Machinery	4.35	3.65	395.86	114.81	3,208.92
Office Equipment and Computer	8.65	14.97	65.84	15.2	9.32
Furniture & Fixtures	3.87	2.11	15.53	17.63	104.16
Vehicles	1.14	15.23	2.1	0.46	0.86
Intangibles	195.5	-	-	257.08	-
Runway, Taxiway & Apron	0	-	935.25	1.48	498.59
Total	214.94	83.67	1891.61	889.4	9494.19

94. The Auditor had certified consolidated figures for Office Equipment and Computer. The same have been split between Office Equipment and Computers based on ratio as per DIAL's tariff submission.

95. The year-wise and category-wise asset deletion and forex adjustment figures, as on 31st March 2011, based on DIAL's Auditor Certificate are as follows:

	2006-07		2007-08		2008-09		2009-10		2010-11	
	Deletion	*Forex Adjustment*	*Deletion*	*Forex Adjustment*	*Deletion*	*Forex Adjustment*	*Deletion*	*Forex Adjustment*	*Deletion*	*Forex Adjustment*
Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10
Runway, Taxiway & Apron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
Plant & Machinery	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	3.98
Office Equipment and Computer	0.00	0.00	0.14	0.00	0.00	0.00	1.83	0.00	0.00	0.00
Furniture & Fixtures	0.00	0.00	0.63	0.00	0.00	0.00	2.38	0.00	0.00	0.13
Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	2.77	0.00	0.00	0.00

96. The net additions based on the figures / information indicated in paras 93 to 95 above is presented below. Since these figures are duly certified by the Auditors, the same have been used for further analysis and determination. The consolidated figures (i.e., after taking into account asset additions and deletion) are as under :

	2006-07	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Building	1.43	47.71	477.03	482.74	5,665.24
Plant & Machinery	4.35	3.65	395.86	114.38	3,204.94
Computer	5.55	9.36	45.81	11.33	7.03
Furniture & Fixtures	3.87	1.47	15.53	15.25	104.03
Intangibles	195.5	-	-	257.08	-
Office Equipments	3.1	5.47	20.03	2.04	2.29
Vehicles	1.14	15.23	2.1	-2.31	0.86
Land	0	-	-	-	-
Runway, Taxiway & Apron	0	-	935.25	1.48	498.15
Total	**214.94**	**82.89**	**1891.61**	**881.99**	**9482.54**

Allocation of Assets

97. DIAL have in their submission stated that in a hybrid model, cost and assets are to be allocated for determining the target revenue over the regulatory period. Further, considering that the OMDA and the SSA define and also make a distinction amongst the following terms viz., Aeronautical charges; Aeronautical services; Aeronautical assets; Non-aeronautical assets and Non-transfer assets. DIAL in their submission have made these distinctions and the assets have been segregated and allocated.

98. DIAL have submitted that based on the list of activities to be included in aeronautical services **(OMDA Schedule 5)**, following key principles have been considered by them in allocating costs and assets :-

*"1. **Full allocation**: No Items should be missed out in allocation exercise.*

*2. **Attribution quality**: The methodology of measurement must be credible.*

*3. **Relevance**: The allocation must be used based on the relevant usage of that area.*

*4. **Consistency**: The methodology adopted must be applied consistently.*

*5. **Continuity:** The methodology adopted for allocation of assets must also continue to apply to costs.*

*6. **Avoidable Cost**: the primary activity of the airport is to provide aeronautical services and the users should bear their full cost. The resources essential to the primary activity of operation of the airport, even if there were no secondary (non-aeronautical) should be allocable to aeronautical activities. Where, however, the presence of non-aeronautical activities has generated an additional requirement for space or facilities, which would otherwise have not been needed, these resulting avoidable costs should be regarded in full as non-aeronautical.*

*7. **Transparency**: The allocation must be carried out in a transparent manner."*

99. In the allocation exercise the total assets of the airport have been classified under the following categories:

- Aeronautical
- Non-Aeronautical and
- In-Admissible Asset

100. DIAL submitted that they have adopted the following methodology for the allocation of the total assets (as reproduced from DIAL's concept document for allocation of assets, attached with the Auditors Certificate dated 15.06.2011):

"1. Firstly, the admissibility test has been applied to all assets in the books. The Upfront Fee paid to AAI, capitalized as Intangible asset, has not been considered as part of Aeronautical Asset since it is not mandated to be classified under Aeronautical Assets as per SSA. As such this has been tagged as In-Admissible Assets.

2. On the balance assets: Asset which directly related to an activity covered under Schedule 5 of OMDA is tagged as Aeronautical. Assets on airside are classified into Aeronautical Assets and are 100% allocable to the Aeronautical Assets. Investment in assets like Runways, Drainage and Culverts, Taxiways, Aprons and Bays, Airfield Ground Lighting 'AGL', Satellite rescue and fire station, perimeter roads, boundary wall, Sub-stations etc. have been allocated as Aeronautical.

3. Terminals: The investment in cargo terminal is considered as non-aeronautical as the same is covered as Non-Aeronautical Service as per Schedule 6 of OMDA. In case of the passenger terminal building 'PTB's, they are primarily used for passenger processing and facilitation. PTB's are therefore aeronautical asset except in where such area is clearly identified to retail or commercial activity which are classified as Non-Aeronautical Asset.

4. Assets which are not directly allocable to either aeronautical or non-aeronautical are classified as mixed assets. In case such assets are related or located to a particular terminal the same has been allocated based on that terminals area allocation mix.

5. Assets which have common usage and support the overall functioning of the management of the airport for example Administrative office

furniture, laptops etc. have been allocated on the overall terminal area mix of Indira Gandhi International Airport.

6. *For terminal assets, as advised by Airport Consultancy firm Jacobs Consultancy the floor area has been used for allocation of aeronautical and non-aeronautical Terminal capex. A separate exercise of allocation of terminal areas was carried out by Jacobs Limited. A certificate to this effect obtained from them. The Aero Non aero classification obtained in the aforesaid exercise for the respective terminal areas is as under*

Summary of Area Allocation of all Passenger Terminal Assets at IGIA

Passenger Terminal	*Aeronautical Area (%)*	*Non-Aeronautical Area (%)*
Terminal 3	*82.32*	*17.68*
Terminal 1A	*96.00*	*4.00*
Terminal 1C	*75.00*	*25.00*
Terminal 1D	*83.00*	*17.00*
Terminal 1 (A,C & D)	*84.00*	*16.00*
Terminal 2	*84.20*	*15.80*
Overall Weighted Average	*82.70*	*17.30*

7. *The Value of Assets Considered is before reducing the Development Fee of Rs.1,817/ - Crores.*
8. *We have considered a sum of Rs.250.88 Crores towards Voluntary Retirement Scheme (VRS) payable to Airports Authority of India (AAI) as per OMDA. The same has been classified as Mixed Asset and allocated in the overall weighted ratio.We are of the opinion that this payment is to be allocated because of imposed constraints in OMDA and allowable as per Point NO.5 of Clause 5 of SSA."*

   [Note: The DF Sanctioned by the MoCA is Rs.1827 crores as against Rs.1817 mentioned by DIAL in point 7 above]

101. The bifurcation of the Aeronautical and Non Aeronautical Assets, as per the initial certificate submitted by DIAL in June, 2011, was 89.25% and 10.75% (Auditors Certificate dated 15.06.2011). The final bifurcation of the Aeronautical and Non Aeronautical Assets as certified by DIAL's Auditors (certification dated 18.11.2011) taking in to consideration the effect of certain disallowances made in DF Order is as follows:

Aeronautical Assets	Non-Aeronautical Assets	Total Assets
Rs. 11,148.10 Cr.	Rs.1,142.88 Cr.	Rs. 12,290.98 Cr
90.70%	9.30%	100%

Dual use Assets

102. DIAL submitted that in general the vast majority of the income at a given airport tends to be clearly allocable to either Aeronautical or Non-Aeronautical categories, as the case may, be and that most assets are also relatively simple to deal, with the important exception of the terminal (in which Aeronautical and Non-Aeronautical activities take place alongside each other under a common roof).

103. **Terminal area allocation –** DIAL have stated that the most important asset used for both aeronautical and non-aeronautical services is the terminal building. For the terminal assets allocation, DIAL have, as advised by M/s Jacobs Consultancy, allocated the floor area requirement within the terminal building, which according to them provides a fair, credible and accurate measurement system and that the same allocation can be used for allocation of aeronautical and non-aeronautical capex on the terminal building. DIAL have stated that a separate exercise of allocation of terminal areas was carried out by them and have appended, to the MYTP submission, a certificate to this effect obtained from Jacobs Consultancy.

104. In their report dated 14.06.2011, Jacobs stated that they have adopted a systematic approach in allocating Terminal assets between aeronautical and non-aeronautical functions. In their opinion, in any price cap regulatory regime which is not based on a single till, revenues, costs and assets need to be allocated among two or more distinct categories for regulatory treatment, with a distinction between aeronautical and non-aeronautical tills.

   - Two of the regulatory building blocks (return on capital and depreciation) are dependent on the Regulatory Asset Base (RAB). In a dual or hybrid till system, the RAB should be calculated using aeronautical assets only;
   - A third regulatory building block is operating expenditure. In a dual or hybrid till system, only aeronautical operating expenditure is taken into consideration when calculating aeronautical charges;

- In a hybrid till system, where part of the non-aeronautical revenues or profits are used to cross- subsidize the aeronautical business, non-aeronautical revenues and costs need to be clearly defined.

105. As stated earlier, the key principles followed by Jacobs in allocating Terminal assets between aeronautical and non-aeronautical functions are Full Allocation, Attribution Quality, Relevance, Objectivity, Consistency, Continuity, Avoidable Cost and Transparency.

106. In the case of passenger terminal at IGI Airport, New Delhi, which according to Jacobs is the most important joint use asset, the allocation of the aeronautical and non-aeronautical functions has been done on a floor area basis. Jacobs have also opined that the areas within the terminal buildings relating to passenger facilitation represent an aeronautical asset in accordance with the principle of avoidable cost concept. Investments in the terminal building purely on account of retail or commercial activities have been allocated to non-aeronautical and finally, assets which serve both the functions jointly (aeronautical and non-aeronautical) are classified as common area assets. For terminal assets, the floor area requirement provides a credible and accurate measurement system for allocation of aeronautical and non-aeronautical activities. The presence of non-aeronautical activities generates an additional requirement for space. The floor area directly drives the capital expenditure of a majority of assets: the greater the area serviced, the higher the cost of the asset. For the purpose of area analysis, the terminal floor area has been divided into sub components and each component categorized as Aeronautical, Non-aeronautical/ Commercial areas and Common areas.

107. Jacobs have stated that the area take-offs have been made for each component and an aeronautical/ non-aeronautical allocation proportion has been estimated for each level for every terminal building. Some estimates have been made for places such as seating areas and circulation as these may not necessarily be either all aeronautical or all non-aeronautical and, accordingly, an assumption of 50% aero for seating areas and 90% aero for circulation has been made for all domestic and international sections of the passenger terminal building, principally because the airport would need adequate seating/circulation area for passengers even if there were no retail inside the terminal. Similarly, an estimate of 95% aero has been

made for circulation inside the piers; mostly because there is very little retail in the piers.

108. The summary of aero and non-aero classification obtained in the aforesaid exercise for the terminal areas at IGIA (after revising the T3 area for excluding 8652 sq. mtr. of Gross Floor Area) is as under:

Terminal	Aeronautical Area %	Non-Aeronautical Area %
Terminal 3	84.07	15.93
Terminal 1A	96.00	4.00
Terminal 1C	75.00	25.00
Terminal 1D	83.00	17.00
Terminal 1 (A,C & D)	84.00	16.00
Terminal 2	84.20	15.80
Overall Weighted Average	84.10	15.90

109. **On this basis, DIAL's Auditors have certified Aeronautical Assets of** Rs.11,080.65 crores and Non Aeronautical Assets of Rs. 1334.98 crores out of the total assets of Rs. 12,415.63 crores. This indicates an overall allocation of 89.25% towards Aeronautical Assets and 10.75% towards Non-Aeronautical Assets.

110. In this connection, DIAL had also organised a presentation by Jacobs on July 5, 2011 explaining the guiding principles and the methodology used for the allocation, and the resultant aeronautical and non-aeronautical split of floor areas and operating expenses. During the presentation, the Authority raised several issues, mainly as to why revenue split was not being used as a driver for allocation and what allocation methods are being followed in other airports/countries.

111. Jacobs in their response have submitted as under:

(i) An allocation by revenue is effectively a tax rather than a cost driven allocation and this has been explicitly criticised in regulatory circumstances. In support of their claim Jacobs have referred to the Water Services Regulation Authority, England & Wales (OFWAT); The Office of Fair Trading (OFT), UK's consumer and competition authority.

(ii) The OFWAT, in its Accounting Guideline 5.04, Section 1.10.2: Principles of Allocation, states that:

'The key principle is that costs should be allocated in relation to the way resources are consumed. Allocations based entirely on turnover, volume or direct labour rates should not be used as they are unlikely to reflect the activities involved'.

(iii) The UK Office of Fair Trading Background to Cost Allocation, 2006 suggests that the revenue based allocation method should not be used for allocating common costs.

'The Revenue method: where common costs are attributed in proportion to their share of total revenues. This may not be appropriate where the cost allocation method is used to facilitate the determination of prices'.

(iv) The Office of Fair Trading Assessing Profitability in Competition Policy Analysis, 2003 mentions that:

'For competition policy purposes, value-based cost drivers should be used with caution, as a circularity problem may arise. For example, if revenue is used as a cost driver, excessively high profits tend to be overlooked, since higher prices lead to higher levels of cost allocated to that line of business and, consequently, lower estimates of profitability. To the extent that the competition authority is interested in whether prices are cost-reflective, the cost-allocation method used should embody the 'cost-causality principle', which means that costs are allocated to the source that caused those costs to be incurred'.

(v) The approach of OFWAT has been specifically referred to in the case of airports by submissions on behalf of CAA.

'Revenue method: Common costs are attributed to services in proportion to their share of the company's revenues. The OFWAT, the Office of Water Regulation, states in its regulatory accounting guidelines that distributing charges to group companies on the basis of profitability or turnover will not provide a proxy for activity and apportionment on this basis should be avoided'.

112. In view of the above, Jacobs have submitted that reason for the objection in the case of airports is fairly clear, as revenues do not reflect in any way

the true allocation of costs between aeronautical and non-aeronautical of key areas such as staff, purchase materials, maintenance and Utilities. This is particularly the case where there are differences in margin between the activities. Where other allocations are not available, good regulatory practice appears to support the use of EPMU (equi-proportional mark-up) effectively allocation in proportion to direct cost.

113. Jacobs have submitted that the objections to allocation of overheads by a tax are particularly significant in the case of DIAL because there are already two substantial 'taxes' on non-aeronautical revenue (i) a 46% revenue share and (ii) 30% contribution to aeronautical revenue which represent a straight 76% impounding tax. The addition of a revenue based allocation of costs (which would transfer costs from the aeronautical to the non-aeronautical side) would take the overall revenue impounding close to 100% and there is a clear circularity in basing an allocation that determines aeronautical revenue on the basis of revenue it is meant to determine.

114. As regards the practice in other airports / countries, Jacobs have indicated the practice in the airports at Auckland, New Zealand; Athens, Greece; Schiphol, Amsterdam and Australia. In the case of Auckland Airport and Athens Airport, Jacobs have submitted that the Airport uses terminal floor area as a basis to allocate asset base and operating cost. There is no reference to revenue as an acceptable allocation base whereas in the case of Schiphol, Amsterdam the airport uses activity based allocation as a basis of allocating costs and assets and there is no reference to revenue based allocation as the basis of allocation. In the case of Australian Airports, the Australian ACCC Airport prices monitoring and financial reporting guideline 2009 provides that the costs are to be allocated by relevant drivers and there is no reference to revenue based allocation as the basis of allocation.

115. On the issue of basing the allocation on the revenues, there appears to be some merit in the argument made by Jacobs at least that relating to circularity. Further, if going forward allocation of mixed/ dual use assets is based upon actuals of the previous year/period, the area allocation would keep changing irrespective of actual use/ requirement. However, some significant issues remain to be resolved in the methodology adopted by Jacobs/ DIAL. These are :

(i) Jacobs have applied a principle of avoidable cost, i.e., based on the premise that the primary activity of the airport is to provide aeronautical services and the users should bear their full costs. The resources essential to the primary activity of operation of the airport, even if there was some secondary (non-aeronautical) activity should be allocable to aeronautical activities. Where, however, the presence of non-aeronautical activities has generated an additional requirement for space or facilities, which would otherwise have not been needed, these resulting avoidable costs should be regarded in full as non-aeronautical.

(ii) Allocation of common use assets on overall terminal area mix of the airport.

116. The Authority has considered the issue in detail. It is conscious of the fact that allocation of the airport assets in to Aeronautical or Non-Aeronautical categories is important in a shared till model, as is the case in determination of tariff for IGI Airport, the cost and assets are to be allocated for determining the target revenue over the regulatory period. However, in the current determination, only 2 years of the regulatory period are left. Considering the short time available with the Authority to commission an independent analysis of the allocation, and the resultant aeronautical and non-aeronautical assets and in the absence of any other relevant basis for allocation the Authority proposes, presently, to accept the **proposal made on the basis of the Jacobs' Report.** However, the Authority may commission an independent study in this regard. If upon analysis / examination pursuant to such study the Authority concludes that the allocation mix herein and costs needed to be changed, it will consider truing up the allocation mix and costs at the beginning of the next regulatory control period. Further, if any excess revenue had accrued to DIAL, in view of the present approach, the same shall be clawed back.

DF Disallowances

117. The Authority had, vide its Order No. 28/2011-12 dated 08.11.2011 for the determination of DF to be levied by DIAL at IGI Airport, disallowed the following costs from the project cost of DIAL:

a. An Upfront Fee of Rs. 150 Crores, paid by DIAL to the AAI.

b. An increase of Rs. 23.82 Crores due to additional apron area on the basis of fair valuation.

c. An increase of Rs. 37.50 Crores due to rehabilitation of runway 10-28. However, out of this, an amount of Rs.17.50 crores was considered to be allowable as opex.

d. An increase of Rs.35.67 Crores on account of escalation for reinforcement, and

e. An amount of Rs.107.15 Crores on account of disallowance of an area admeasuring 8652 sq. mt. in the Gross Floor Area of T3.

118. **Based on Authority's Order (No.28/2011**-12 dated 14.11.2011), DIAL submitted a certificate from its Auditor on the revised allocation of assets into Aeronautical and Non-Aeronautical Assets and submitted that the disallowances in the DF order have resulted in a change in the asset allocation percentage between aeronautical and non-aeronautical assets.

119. **As per DIAL's Auditor certificate, the allocation percentage towards** aeronautical assets has become 90.70% from the earlier figure of 89.25%. DIAL further submitted that on application of the revised allocation percentage to common-use/ mixed use assets, the total quantum of aeronautical assets after DF disallowance becomes Rs.11,074.29 Crores.

120. DIAL had proposed in its tariff application that the amount received on account of DF would be monetised and reduced from the RAB in the following manner:

Year	FY 2011-12	FY 2012-13	FY 2013-14
Amount proposed to be monetised (in crores)	1449.29	137.70	109.02

121. **Based on Authority's Order as referred earlier, DIAL vide its letter** DIAL/2011-12/Fin-Acc/1583 dated 15.11.2011, requested for an updation in the proposed year-wise monetization. Further, DIAL have accepted to change the numbers based on revised DJB monetisation schedule in the following manner:

Year	FY 2011-12	FY 2012-13	FY 2013-14
Amount proposed to be monetised (in Crores)	1303.35	157.50	127.50

__Observations on DF Disallowances__

122. On review of the submission made by DIAL, it is observed that the allocation percentage is based on the use of dual-use or mixed-use assets between aeronautical and non-aeronautical and a disallowance of area, which is directly attributable to non-aeronautical services, in the Gross Floor Area (GFA) of T3 does not impact the use of such dual-use or mixed-use assets. Further, the other costs disallowed, i.e., Rs.23.82 crores (Apron Area) and Rs.37.50 crores (Rehabilitation of Runway 10-28) are directly attributable to aeronautical assets. Hence, it is felt that a disallowance in GFA of T3 should not necessarily involve a change in the allocation percentage towards aeronautical and non-aeronautical assets.

123. **In view of the Authority's Order on DF and exclusions as discussed in** above paras, the RAB as certified by **DIAL's Auditor is proposed to be** updated as below:

    a. Amount of Rs. 23.82 crores and Rs. 20.00 crores, on account of apron and runway rehabilitation, to be reduced from the value of aeronautical assets, since an amount of Rs.17.50 crores on account of runway rehabilitation has been accepted by DIAL to be reduced and considered as opex.

    b. Amount of Rs. 107.15 crores, on account of disallowance of 8652 sq.mt. from the GFA, to be reduced from the value of non-aeronautical assets, and

    c. Amount of Rs.35.67 crores, on account of escalation for reinforcement, to be reduced from the value of aeronautical assets and non-aeronautical assets in the ratio of overall asset allocation percentage of 89.25% as submitted by Jacobs Consultancy.

124. In line with the exclusions from RAB mentioned in para 123 above amounting to a total of Rs. 204.14 Crores, the means of finance corresponding to such assets are also proposed to be reduced for the purpose of determination of WACC. The exclusions are proposed to be made from the means of finance (i.e. Equity, Rupee Term Loan, ECB Loan and Lease Deposits) in FY2010-11, in the respective ratio of such means of

finance. This would translate to the following reduction from the means of finance for the purpose of determination of WACC.

Sl. NO.	**Head**	**Amount of considered exclusion (Rs. Crores)**
1	Equity	53.40
2	Rupee term Loan	82.99
3	ECB Facility Loan	36.17
4	Lease Deposits	31.57
	Total	**204.14**

125. DIAL have clarified/ certified that the assets pertaining to above mentioned exclusions in the DF Order were capitalised in the FY 2010-11. Hence, the reduction in RAB is proposed to be carried out in FY2010-11.

126. It is proposed to accept the revised year-wise monetization of DF and update the RAB accordingly. The impact on the X factor based on the DF Order disallowances, as indicated above, is as under:

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
DF Order Disallowances	-774.30%	-137.94%	-773.10%	-137.87%

__Deposit for Metro Rail__

127. The project cost of DIAL includes an amount of Rs.350 Crores towards the funding for metro connectivity to IGI Airport. MoCA, vide letter dated 01.11.2007 allowed DIAL to provide Rs.350 Crores towards funding the project executed by Delhi Metro Rail Corporation (DMRC) and contributed by DIAL to DMRC by way of any instrument but shall not be in the form of equity/any form of debt. The letter further states that the contribution shall be non-refundable/ non-repayable and DIAL shall have the exclusive and all commercial development rights within the airport boundary including the Metro Station towards the contribution of Rs.350 Crores and that the contribution shall be classified as "Aero Assets".

Observations on Deposit for Metro Rail

128. The OMDA defines Aeronautical Assets as under:

 ***"Aeronautical Assets"** shall mean those assets, which are necessary or required for the performance of Aeronautical Services at the Airport and such other assets as JVC procures in accordance with the provisions of the Project Agreements (or otherwise on the written directions of the GOI/ AAI) for or in relation to, provision of any Reserved Activities and shall specifically include all land (including Excluded Premises), property and structures thereon acquired or leased during the Term in relation to such Aeronautical Assets.*

129. The Authority is of the view that the contribution made by DIAL to DMRC is difficult to be classified as an Aeronautical Asset as it is not an asset which is necessary or required for the performance of any Aeronautical Service. Further, Metro Rail connectivity is not a Reserved Activity. Therefore, it cannot be treated as "such other Assets as JVC procures in accordance with the project Agreements for or in relation to, provision of any Reserved Activities" as well. The Authority had, while reviewing the levy of DF at IGI Airport, New Delhi, considered the subject item as part of the project cost for the purpose of funding the financing gap by way of DF. However, for the purpose of tariff determination, only the costs related to the creation of an aeronautical asset, necessary for the provision of aeronautical service should be considered for the purpose of tariff determination. Further, it is also noted that DIAL have not included any income in lieu of this investment nor have assets been added to the account of DIAL.

130. In view of the above observations, an option available to the Authority is to proceed with the determination of tariff for aeronautical services without including the amount of Rs.350 crores by DIAL to DMRC, i.e., based on the project cost of Rs.11,451.86 Crores (Stage 1 project cost of Rs.11,801.86 Crores less Rs.350 Crores) as the RAB.

131. Also, assuming that there is no change in the allocation of Non-Aeronautical assets, the summary of allocation of the assets, as on 31.03.2011, on the above basis could be reworked as under:

Aeronautical Assets	*Non-Aeronautical Assets*	*Total Assets*
Rs. 10,116.88 Cr.	Rs.1,334.98 Cr.	Rs. 11451.86 Cr
88.34%	11.66%	100%

132. However, the approach suggested in para 130 above, would amount to the Authority reversing a decision taken by MoCA/Government before the Authority was established though there is no indication in the MoCA's letter whether such a decision was taken by it as the then regulator. In this view of the matter, another option available to the Authority is to accept the cost of Rs.350 crores paid by DIAL to DMRC towards aeronautical assets.

133. The Authority has considered the issue in detail. Since the Authority has till now, more or less, adopted an approach wherein it has desisted from reopening and revising the decisions taken by the GoI before its establishment, it proposes to accept the cost of Rs.350 crores paid by DIAL to DMRC towards aeronautical assets.

134. While taking the tentative view as above, the Authority also notes that such a treatment of this cost may amount to a situation wherein the asset base – created out of Rs.350 crores paid by DIAL may possibly also be reflected in DMRC's financial books.

Treatment of VRS amount

135. DIAL have indicated that an amount of Rs.288.82 crores is payable by them to AAI on account of the retirement compensation for the AAI employees in terms of Article 6.1.4 of OMDA. Out of this an amount of Rs.250.88 crores was capitalized by DIAL in the year 2009-10. Consequently an amount of Rs.213.68 crores has been included in the Aero RAB as intangible assets.

136. DIAL's Auditor has certified that the VRS payment has been considered as mixed asset and allocated in the overall weighted ratio and that the DIAL

management is of the opinion that this payment is to be allocated since this is one of imposed constraints in OMDA.

Observations in respect of the treatment of VRS amount

137. While reviewing the treatment of VRS amount, DIAL were requested to submit an Auditor's certificate towards the actual payments made by them to AAI towards VRS.

138. The Auditor Certificate submitted by DIAL, certifies that DIAL have paid a sum of Rs.151.10 crores to AAI towards VRS against the total liability of Rs.288.82 crores raised by AAI vide their Invoice Numbers AAI/IGIA/DIAL/OSC/2009-10/5/165-167 and AAI/MC/JVC-14/VRS/ 2011-12/1267 and the amount were spent as under:

Year	2009-10	2010-11	2011-12
Amount in Rs. Crores	80.00	32.72	38.38

139. Aforesaid liability is arising out of the provisions made in OMDA. As per clause 6.1.1 of OMDA, for a period of three years from the effective date, AAI were to provide operational support to the JVC (DIAL) through the general employees in the manner and subject to the terms provided in the OMDA. This period has been termed as Operation Support Period. Further, as per clause 6.1.4, at any time during the operation support period not later than three months prior to the expiry of the Operation Support Period, the JVC shall make offers (on terms that are no less attractive in terms of salary, position etc. than the current employment terms of such employees) of employment to the general employees that it wanted to employ. However, JVC was required to make offers to a minimum of 60% of the general employees. The general employees had the option to accepting or declining the offer within one month. The general employees who accepted offer of the JVC, upon resigning from AAI were treated to have ceased to be the AAI employees from the date of acceptance of offer or completion of the operation support period as applicable. The OMDA also provided that if less than 60% of the general employees accept the offer of employment made by the JVC then the JVC was required to pay to AAI retirement compensation for such number of general employees as

represent the difference between the 60% of the general employees and the number of general employees accepting offer of employment made by the JVC.

140. From the correspondence placed on record by DIAL's email dated 30.11.2011, it is observed that:

(i) The total amount of Rs.250.88 crores is claimed by DIAL as its liability on the account of VRS payment. However, as per AAI's letter No.AAI/MC/JVC-14/VRS/2011-12/ 1267dated 19.07.2011 **(Annexure - III)** a total claim of Rs.186.58 crores only has been made by the AAI for the period May'2009 to April'2019.

(ii) The claim made by the AAI for the first regulatory period is as under:

Year	AAI's claim (Rs in crores)	Amount certified to have been paid by DIAL's Auditor (Rs in crores)
2009-10	18.87	80.00
2010-11	20.10	32.72
2011-12*	19.68	38.38
2012-13	19.38	-
2013-14	19.07	-
Total	**97.10**	**151.10**

(* upto 30.09.2011)

(iii) It has been clarified by DIAL (vide their email dated 02.12.2011) that AAI had raised two invoices towards the total retirement compensation of Rs.288.82 crores, the details of which are as under:

Details	**Reference**	**Amount**
AAI supplementary Bill for retirement compensation claim – **ONE TIME**	Bill Number IGIA/co-ord. cell/VRS/2011-12/01 dated 08-04-2011	1,033,866,603.00
Retirement Compensation Claim-Details of **MONTHLY CLAIM- DIAL**	Letter Number AAI/MC/JVC/-14/VRS/2011-12/1267 dated 19th July 2011	1,865,796,735.00
	Total	2,899,663,338.00
Less	Amount Contested by DIAL	11,377,590.00
Amount capitalized in books of account As on 31.03.2011 Rs.250.88 crores Capitalised during half year ending 30.09.2011 Rs. 37.94 crores		2,888,285,748.00

(iv) Against the above claim, DIAL have paid an amount of Rs.80 cores against the One Time Claim and amounts of Rs.32.72 crores and Rs.38.38 crores have been paid in 2010-11 and 2011-12 (upto 30.09.2011), respectively against the monthly claims. Balance amount of Rs.9.80 crores (for balance period of 2011-12), Rs.19.38 crores (2012-13) and Rs.19.07 crores (2013-14) is payable by DIAL to AAI during the current regulatory period.

(v) As stated in paras 135 and 136 above, DIAL have amortized the VRS liability, as claimed by them, over the 30 year lease period by considering the VRS payment as mixed asset and allocated the same in the overall weighted ratio.

141. In this background, two options appear to be available regarding the treatment of VRS liability:

(i) Option I – The amount of Rs.199.35 crores determined in line with para 140 (iv) above, may be expensed out as opex, as the payments are HR related, after allocating these to aero costs on overall weighted ratio and the amount of Rs.213.68 crores may not be included in the Aero RAB; or

(ii) Option II – The amortization of Rs.213.68 crores proposed by DIAL on the grounds that of imposed constraints in OMDA may be considered.

142. The impact of Option-I on the 'X' factor has been analysed as under:

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
VRS Treatment	-774.30%	-137.94%	-778.94%	-138.42%

143. It is noted that the payments made by DIAL on account of the VRS are staggered. Since the VRS amount is not being paid on a one time basis, the Authority considers the treatment of amortisation of this amount incorrect. Therefore, the Authority proposes that the amount of Rs.199.35 crores

determined in line with para 140 (iv) above, may be expensed out as opex as the payments are HR related after allocating these to aero costs on overall weighted ratio and the amount of Rs.213.68 crores may not be included in the Aeronautical RAB. However, upon such a treatment as noted above, the X factor increases slightly.

Future Capex

144. DIAL have projected an amount of Rs.93 Crores for 2011-12, Rs. 183 Crores for 2012-13 and Rs.200 Crores for 2013-14 towards Capex that would, in its view, be necessitated at the airport. DIAL have also projected to capitalise Rs.570 crores of Capital Work in Progress assets during the FY 2011-12.

145. The projected capex is further segregated as Maintenance Capex of Rs.244.17 crores and Future Capex of Rs.230.00 crores to be spent as under:

Year	2011-12	2012-13	2013-14
Maintenance Capex in Rs. Crores	63.08	80.83	100.26
Future Capex in Rs. Crores	30.00	100.00	100.00

Observations on Future Capex

146. Section 13 (1)(a)(i) of the Act lays down that the Authority shall determine the tariff for aeronautical services taking in to consideration the capital expenditure incurred and timely investment in improvement in airport facilities.

147. While finalising the Order in the matter of Economic Regulation of Airports (Order No.13/2010-11 dated 12.01.2011) the Authority noted the concerns of stakeholders and Airports on the consultation protocol proposed by the Authority. The Authority reiterated its objective to propose a consultation protocol to be followed by Airport Operators in respect of the decisions to be made on capital investment. The Authority stated that it is a well-accepted principle and best practice that future development at the airport, primarily in terms of capital investment, needs to be informed by views expressed by users of airport. The consultation protocol provides a framework between Airport Operators and users which is intended to be an

on-going, continuous process during the project life cycle that should inform decisions during key phases of investment planning.

148. Amongst the principles of Tariff fixation, Schedule 1 of the SSA, the 9th principle is on the Consultation to be followed by the JVC i.e., DIAL. The principle states that ***"The*** Joint ***Venture Company will be required to consult and have reasonable regard to the views of relevant major airport users with respect to planned major airport development".***

149. In normal course, it would need to be assumed that DIAL have followed the principles enumerated in the SSA; and have ensured consultation with the stakeholder; and have had reasonable regard to the views of relevant major airport users with respect to planned major airport development. However, presently, no evidence whatsoever has been placed on record to support this assumption.

150. DIAL have in their clarifications on the estimate of maintenance capex submitted that the estimate of One Euro per passenger has been taken based on European Airport standards and in their case where a mix of old and new airside and terminal infrastructure exists, the basis of age of facility and elasticity to passenger has been used for projecting the maintenance capex. In addition, DIAL have also made an internal estimate of the activity-wise spend required to be incurred in future years, which is reproduced hereunder:

Maintenance Capex Projections - 2011-12 TO 2012-13 (Rs in lakhs)			
Terminal / Department/ Head	**Section**	**2011-12**	**2012-13**
T1	MEP	94	79
	CIVIL	349	97
HT Network	MEP	34	92
	CIVIL		
CARGO	MEP	9	
	CIVIL	1583	
T3	Mechanical	40	300
	Electrical	70	195
	Airport Systems	88	101
	ACB - ASB		
	CIVIL	800	510
	STP/WTP		200
Airside, TMT & CS	Airside Civil	2216	2325

Maintenance Capex Projections - 2011-12 TO 2012-13 (Rs in lakhs)			
Terminal / Department/ Head	**Section**	**2011-12**	**2012-13**
	Central Stores	85	134
	AGL T1 & T2	683	631
	TMT	278	265
	AGL T3		455
	T1 & T2 Airside Electrical		2465
	T3 Airside Electrical		45
Landscaping and Irrigation		150	
TOTAL		**6479**	**7892**

151. As per DIAL, the figures arrived for FY 2011-12 and FY 2012-13 are in line with the assumptions of One Euro per passenger along-with the elasticity assumptions and assumptions on elasticity to the age of the facility.

			Figures in Rs. Crores		
	Quin 1	Quin 1	Quin 1	Quin 1	Quin 1
Regular Capital Expenditure	**2010**	**2011**	**2012**	**2013**	**2014**
New Developments (T3 & New R/W)					
Elasticity to Pax growth			50.0%	50.0%	50.0%
Elasticity based on age of Facility			10.0%	15.0%	20.0%
Annual Increase			5.0%	7.5%	10.0%
Capex Per Pax in Euros (€)	-	-	1.00	1.00	1.00
Conversion Rate of Euro to Indian Rupee			65.0	65.0	65.0
Nos. of Pax in Crores	2.61	2.97	3.23	3.55	3.86
Total Maintenance Capex (A)			11	17	25

Old Terminals, City Side and Airside Assets (T1 & R/w 28/10, 27/09					
Elasticity to Pax growth			50.0%	50.0%	50.0%
Elasticity based on age of Facility			50.0%	55.0%	60.0%
Annual Increase			25.0%	27.5%	30.0%
Capex Per Pax in Euro (€)	-	-	1.00	1.00	1.00
Conversion Rate of Euro to Indian Rupee			65.0	65.0	65.0
Nos. of Pax in Crores	2.61	2.97	3.23	3.55	3.86
Total Maintenance Capex (B)			53	64	75
Total Maintenance Capex (A+B)			63	81	100

152. DIAL further clarified that the Future Capex is on account of miscellaneous capex which is projected to be incurred during the proposed period.

153. It is relevant to note that having projected a capitalisation of assets of Rs.570 Crores in FY2011-12 and Rs. 350 Crores in FY2013-14 and having also considered a maintenance capex for existing assets, DIAL's projection of another Rs. 230 Crores of capex from FY2011-12 to FY2013-14 is supported neither by any consultations with the stakeholders/ users at the airport nor by any detailed analysis of the activities that shall be undertaken as part of the projected capex.

154. Considering the fact that, at present, DIAL have not submitted any basis/ documentary evidence for the projected future capex, Rs.230 Crores from FY2011-12 to FY2013-14, the Authority proposes not to reckon the same. The impact of disallowance of Future Capex from RAB on the 'X' factor has been analysed as under:

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
Disallowance of Future Capex	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
	-774.30%	-137.94%	-770.82%	-137.59%

155. As regards the maintenance capex, DIAL were requested to support their claim of a spend of One Euro per passenger being based on European Airport Standards. However, DIAL have not furnished the same. Instead, as mentioned in para 150 above, a detailed headwise assessment has been furnished for the years 2011-12 and 2012-13. The figures, now, represented are Rs.64.78 crores and Rs.78.92 crores for these years respectively, as against the earlier projected figures of Rs.63.08 crores and Rs.80.83 crores respectively. Total maintenance capex is projected to be Rs.244.17 crores over the period 2011-12 (Rs.63.08 crores), 2012-13 (Rs.80.83 crores) and 2013-14 (Rs.100.26 crores).

156. It is observed that :

(i) No justification has been furnished by DIAL to support the proposed maintenance capex during 2013-14.

(ii) In the year 2011-12, a capex of Rs.15.92 crores has been shown in respect of Cargo Services. This maintenance capex does not appear to

be acceptable for the present tariff determination purposes as DIAL have otherwise claimed cargo services to be non-aeronautical services and have kept the other cargo capex outside the RAB. Further, they have also requested for the cargo revenue to be treated as non-aeronautical revenue.

(iii) Considering the position explained at (ii) above, the DIAL have given justification only in respect of maintenance capex of Rs. 48.86 crores in 2011-12 and Rs.78.92 crores in 2012-13.

157. In view of the above, the Authority, for the present, proposes to consider only the capex of Rs.127.78 crores (i.e., Rs.48.86 crores + Rs.78.92 crores) during 2011-12 and 2012-13. As no justification is forthcoming in respect of 2013-14 figures, the same is proposed to be not accepted.

158. The impact of the position stated in para 157 above **on the 'X' factor has** been analyzed as under :

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
Disallowance of Maintenance Capex	-774.30%	-137.94%	-771.64%	-137.67%

159. While taking the view, indicated in para 157 above, the Authority is also conscious that for a project of this size it would not be realistic to assume a zero maintenance capex in any year. Therefore, in case DIAL, during the stakeholder consultation, is able to substantiate/ justify the proposed capex, the Authority may be inclined to consider the same favorably.

RAB for return

160. As highlighted earlier, DIAL have calculated the RAB for each year as the average of the opening and the closing RAB and the return is calculated on the average RAB.

Observations on RAB for return

161. The Authority has decided, vide the Guidelines dated 28.02.2011, that RAB for the purpose of determination of tariffs shall be the average of the RAB value at the end of a tariff year and the RAB value at the end of the preceding tariff year, which is consistent with the approach adopted by DIAL in the tariff application.

162. The RAB value at the end of a tariff year is in turn determined in the above mentioned Guidelines as follows:

Closing RAB = Opening RAB + Commissioned Assets - Depreciation - Disposals + Incentive Adjustments

163. As per SSA the RAB for the year 'i' is to be determined in the following manner :

$$RB_i = RB_{i-1} - D_i + I$$

164. It would, therefore, appear that the regulatory base for the year 'i' is to be calculated by adding the investments undertaken during the period and subtracting the depreciation pertaining to the period. In absence of any other guidance, it has to be understood that the investments undertaken during the period essentially refer to the value of assets capitalised during the period.

165. From the formula given in SSA, it can be argued that the Return on RAB for the purpose of tariff determination is to be calculated based on the closing RAB. However, the determination of Return on RAB at the closing value of RAB has following associated issues:

    (i) Such an approach would tantamount to providing returns for the full period (year) for an asset which gets capitalised, say, even during the last month of the year;

    (ii) Such an approach would also tantamount to not providing any returns on an asset which gets disposed during, say, the last month of the year.

166. In view of the above, the Authority considers that the approach suggested by DIAL, which is in accordance with the Guidelines in respect of other airports, may be accepted.

RAB considered for tariff determination

167. Based on the analysis and the options presented above, the Authority proposes that the year-wise RAB indicated below, may be considered for the purpose of tariff determination:

				Regulatory Period				
(Amount in Rs. Crores)	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Regulatory Asset Base	-	61	108	2,394	2,813	8,966	7,918	7,626
Investment	62	51	1,866	540	8,231	550	79	-
Deletion/Disallowance						-		
Depreciation & Amortization	1	3	47	121	251	375	363	364
Assets funded out of DF	-	-			1,827	1,223	8	8
Hypothetical Asset Base	-	-	467					
Closing Regulatory Asset Base	61	108	2,394	2,813	8,966	7,918	7,626	7,255
Average RAB for Return	31	85	1,251	2,604	5,889	8,442	7,772	7,440

b. **Hypothetical Regulatory Asset Base**

168. DIAL submitted that Schedule 1, pertaining to Principles of Tariff Fixation, of the State Support Agreement lays down the mechanism for determination of the Target Revenue; and that one of the components in the determination of the Target Revenue is Regulatory Asset Base (RAB) pertaining to aeronautical assets. According to them, the mechanism set

forth in the SSA for the computation of the Regulatory Base of Aeronautical Assets in any given year is based on the following formula:

$$RB_i = RB_{i-1} - D_i + I_i$$

and that Schedule 1 requires, at the time of determination of initial Regulatory Base pertaining to Aeronautical Assets, consideration of a Hypothetical Regulatory Base.

169. DIAL further submitted that the SSA prescribes the following components to be considered while determining the Hypothetical Asset Base as under:

Calculation	***Explanation***
Aeronautical revenue	Aeronautical revenue of preceding Year of tariff determination
Less : O&M costs	Aeronautical Operation and Maintenance costs
Less: Taxes	Net Of Taxes if any
Balance = Net Revenue	The Net Revenue arrived is multiplied by reverse of WACC: as the hypothetical asset base multiplied by WACC should give last year's Net Aero Income. DIAL considered the Bid WACC for the aforesaid purpose.

170. In light of the provisions of the SSA, DIAL considered 2009-10 as the first year of the regulatory period and Hypothetical Asset Base was considered based on revenues and expenses of the year 2008-09.

171. *According to DIAL, the "Hypothetical Assets Base represents the assets that were transferred to DIAL as part of the concession… valuation of such assets should be based on* ***sustainable*** *operating and maintenance costs and also exclude the operation and maintenance costs of new assets created after the start of concession e.g. new runway."*

172. DIAL have further stated that:

"In the year 2008-09 there was an overlap of manpower costs of AAI staff as well as DIAL staff. From a valuation point of view the manpower cost of only AAI staff for the relevant period is considered (Operational Support Cost) to result in a fair valuation. The manpower cost of DIAL staff has been excluded as the AAI staff was mandated to support the working of existing terminals for that period while the DIAL staff was getting oriented and trained. The

operation and maintenance cost of the new assets viz. new runway are also excluded."

173. DIAL stated that they have used a "Bid WACC" of 11.6% to determine the Hypothetical Regulatory Base.

174. Details of calculation of Hypothetical Regulatory Base submitted by DIAL are as under:

Particulars	**2008-09** Figures in Rs. Crores
Aero Revenue [A]	434
Aero Expenses [B]	385
Less : Expenses Not Considered [C]	82
DIAL Manpower Cost	81
Runway 11/29 Operations & Maintenance cost	1
Eligible Expenses [D=B-C]	304
Aero EBIDTA [A-D]	130
WACC	11.60%
Hypothetical Asset Base	1,119

<u>*Observations*</u>

175. In considering DIAL's submissions and formulating tentative views on the issue, following aspects need to be reviewed:
    (i) Definition of Hypothetical Regulatory Base under the SSA;
    (ii) Date of determination of Hypothetical Regulatory Base; and
    (iii) Each of the components for determination of Hypothetical Regulatory Base as per provisions of the SSA.

176. According to Schedule 1 of the SSA:

"RB_0 for the first regulatory period would be the sum total of

(i) the Book Value of the Aeronautical Assets in the books of the JVC and

(ii) the hypothetical regulatory base computed using the then prevailing tariff and the revenues, operation and maintenance cost, corporate tax pertaining to Aeronautical Services at the Airport, during the financial year preceding the date of such computation."

177. As discussed earlier, the first regulatory period for tariff determination for DIAL is proposed to be considered from 1st April 2009 to 31st March 2014. Accordingly, hypothetical regulatory base has to be computed using the

relevant costs and revenues for the financial year 2008-2009, as proposed by DIAL.

178. The hypothetical RAB would, accordingly, need to be computed using values of the following components for financial year 2008-09:

   (i) Revenues at prevailing tariffs in the year;
   (ii) Operation and Maintenance cost; and
   (iii) Corporate tax pertaining to Aeronautical Services at the Airport.

179. Further, the computation would require consideration and adoption of a suitable discount factor for the purpose of valuation.

180. **With respect to the issue of considering "*sustainable operating and maintenance costs and also excluding the operation and maintenance costs of new assets*" for the valuation of hypothetical asset base as raised by** DIAL, it is noted that no such guidance is provided in the SSA which provides for consideration of a hypothetical regulatory base in the first place. In addition, Principle 5 in Schedule 1 of the SSA states that:

   "... Further in respect of regulation of Aeronautical Services the approach to pricing regulation should encourage economic efficiency and only allow efficient costs to be recovered through pricing, ***subject to acceptance of imposed constraints such as the arrangements in the first three years for operations support from AAI*** *(emphasis supplied)."*

181. As seen from the definition of Hypothetical RAB (para 176 above), there is no reference to efficient Operation and Maintenance costs. Instead, it is referring to the prevailing, ie., actual cost of operation and maintenance.

182. Accordingly, there appears to be no warrant in the SSA to exclude the manpower cost of DIAL staff from the operation and maintenance costs while computing hypothetical RAB. Further, the SSA also does not provide that the opex in respect of any new asset (i.e., any asset which has been built by DIAL and has not been inherited from AAI) should not be included. **Therefore, DIAL's proposal to exclude the operation and maintenance cost** of the new assets viz. new runway in determining the hypothetical asset base also does not appear to be acceptable.

183. The tariff model submitted by DIAL had a provision to review the impact, on determination of hypothetical asset base, of also considering the DIAL

staff costs and operation and maintenance cost of the new assets viz. new runway for financial year 2008-09.

184. The hypothetical asset base as reworked without considering exclusion of such costs would be as under:

Particulars	2008-09 Figures in Rs. Crores
Aero Revenue [A]	434
Aero Expenses [B]	385
Aero EBIDTA [A-B]	48
WACC	11.60%
Hypothetical Asset Base	416

185. **The impact of considering such hypothetical asset base on the 'X' factor** would be as under:

	X Factor as per DIAL submission		X Factor after considering above mentioned costs for determination of Hypothetical RAB	
Operating Expenses for Hypothetical RAB	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-689.01%	-128.87%

186. **DIAL have used "Bid WACC" to determine Hypothetical RAB in their tariff** submission. The issue arising for consideration is whether the same could be accepted.

187. It is observed that at the time of restructuring of Delhi and Mumbai airports, an indicative WACC of 11.6% was given in the RFP. In the pre-bid clarifications, the significance of the same was stated as under :

"The post tax cost of equity and debt assumed under the indicative post tax nominal WACC of 11.6% are 22.8% and 6.0 respectively. The purpose of the indicative post tax nominal WACC of 11.6% given in the RFP is to ensure consistency between Business Plans submitted by Bidders as part of their Offer."

Thus, it is apparent that WACC of 11.6% mentioned in the RFP document was only indicative and the same was indicated to ensure consistency between the Business Plans submitted by the Bidders as part of their offer. Such consistency would not have been possible if each bidder was to use its

own estimate of WACC. In this view of the matter, it is clear that the figure of 11.6% mentioned in RFP cannot in any way be treated to be the return which the bidder could have expected from the transaction. As such, the use of "Bid WACC" for calculation of hypothetical RAB does not appear to be justified.

188. In this context, it is noted that the SSA does not provide any explicit guidance on the use of any particular WACC value for the determination of hypothetical regulatory base. Further, the SSA provides for determination of hypothetical regulatory base at the commencement of the first regulatory period. For determination of tariffs for aeronautical services during the first regulatory period, the SSA provides for consideration of WACC as the nominal post-tax weighted average cost of capital, calculated using the marginal rate of corporate tax for the purpose of considering returns on regulatory base in general.

189. In this light following options appear to be available:

    (i) The WACC claimed by DIAL in their tariff proposal could be used being their expectation of return; or

    (ii) The WACC, which the Authority would allow, may be used being the Authority's assessment of fair return.

190. DIAL had computed and proposed a WACC of 16.15% in their submission dated 20.06.2011 which was subsequently revised by DIAL to 16.16% (based on the Auditor's certification of Interest rates applicable as on 18.08.2011 for Rupees Term Loan) for the purpose of considering returns on regulatory base.

191. The hypothetical asset base as reworked considering the WACC proposed by DIAL for the first regulatory period would be as under:

Particulars	2008-09 Figures in Rs. Crores
Aero Revenue [A]	434
Aero Expenses [B]	304
Aero EBIDTA [A-B]	130
WACC	16.16%
Hypothetical Asset Base	804

192. On the other hand, as discussed subsequently in para 265 below, a WACC of 10.33% is assessed as reasonable for being allowed to DIAL.

193. The hypothetical asset base as reworked considering the WACC, now, tentatively proposed to be considered by the Authority would be as under:

Particulars	2008-09 Figures in Rs. Crores
Aero Revenue [A]	434
Aero Expenses [B]	304
Aero EBIDTA [A-B]	130
WACC	10.33%
Hypothetical Asset Base	1256

194. **The impact of considering such hypothetical asset base on the 'X' factor** would be as under:

	X Factor as per DIAL submission		X Factor after considering DIAL proposed WACC for determination of Hypothetical RAB	
WACC for determination of Hypothetical RAB	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
As submitted by DIAL - 11.6%	-774.30%	-137.94%	-735.97%	-133.94%
As determined by Authority for -10.33%	-774.30%	-137.94%	-790.93%	-139.64%

195. The hypothetical asset base as reworked considering the WACC now tentatively proposed to be considered by the Authority and considering the manpower cost of DIAL staff, for the first regulatory period would be as under:

Particulars	**2008-09 Figures in Rs. Crores**
Aero Revenue [A]	434
Aero Expenses [B]	385
Aero EBIDTA [A-B]	48
WACC	10.33%
Hypothetical Asset Base	467

196. The Authority is of the view that out of the three options available namely use of "Bid WACC", or use of WACC proposed by DIAL, or use of WACC now assessed by the Authority, the last option appears to be most reasonable as it represents the Authority's assessment of fair return for DIAL though it results in some increase in the Hypothetical RAB.

197. As indicated in para 178 above above, one of the elements to be considered for computing the hypothetical RAB is "Corporate tax pertaining to Aeronautical Services at the Airport, during the financial year preceding the date of such computation". It is observed that the Income Tax Act, 1961 does not define the term "corporate tax". As per FAQ available on the website of the Income Tax Department (www.incometaxindia.gov.in) in reply to Q.6 it is stated that "when companies pay taxes under the Income Tax Act it is called corporate tax". In a further reply under Q.34, the department has clarified that "The tax to be paid by the companies on their income is called corporate tax". It has been ascertained from the Balance Sheet of DIAL for the year 2008-09 that no tax on income was paid or payable. Hence, Corporate Tax element is proposed to be considered as zero while computing the hypothetical RAB.

198. DIAL, vide their email dated 07.12.2011, have stated that *"Besides the regular aeronautical revenues like landing, parking and housing fee, passenger fee, we had considered fuel farm royalty as aeronautical for the first tariff filing. From discussions, it appears that while the Authority is treating the concession fee received by DIAL from cargo concessionaires as non-aero, it is considering treating the revenue of DIAL from direct cargo handing prior to concessioning as DIAL's aeronautical revenue. Given this premise, for the year 2008-09, DIAL was directly operating cargo activity. In such case the value of Hypothetical RAB needs to be revised………"*

199. Based on the above submissions DIAL have proposed revision of hypothetical RAB, as Under:

Particulars	Tariff Filing	Revised
Aero Revenue	434 crs	645 crs
Aero efficient Costs	304 crs	306 crs
WACC	11.60%	11.60
Hypothetical Asset Base	**1,119 Cr**	**2,928 Crs**

200. It is observed that the solely the Hypothetical Asset Base is to be determined in line with the SSA provisions as there is no provision in this regard in the Act. As already indicated in para 61 above, the Authority proposes to take the following approach towards determination of tariffs for aeronautical services provided by DIAL – i.e. be guided by provisions of the SSA read with the provisions of OMDA and other agreements as far as these are consistent with provisions of the Act; and wherever possible, have recourse to principles of tariff determination contained in its Airport Order and Guidelines. As per the Schedule 6 of the OMDA, Cargo handling and Cargo Terminals are "Non Aeronautical services". Further, as per the Schedule 1 of the SSA (refer para 176 above), the book value of "**Aeronautical Assets**" in the books of the JVC and "…. *prevailing tariff and the revenues, operation and maintenance cost, corporate tax pertaining to **Aeronautical Services** at the Airport…..*" shall be considered for computation of hypothetical RAB.

201. In view of the above, the Authority is not persuaded to accept this latest proposal for revision of hypothetical RAB.

Other RAB Components - Financing Allowance

202. On the consideration of other components / elements for the Regulatory Base, DIAL have submitted that:

(i) Working Capital is not included in the RAB.

(ii) In addition to the interest during construction, additional capitalisation for the financing allowance being the amount due on equity invested (including quasi-equity), foregone at the WIP stage, has been considered as part of RAB as Financing Allowance. However the same has been considered only up to the date of actual capitalisation of assets.

(iii) Upfront fees and pre-operative expenses, incurred by DIAL towards bid preparation are considered as inadmissible and therefore not included in RAB.

203. The SSA defines the regulatory base on which returns are admissible at the rate of WACC as:

"Regulatory base pertaining to Aeronautical Assets and any investments made for the performance of Reserved Activities etc. which are owned by the JVC, after incorporating efficient capital expenditure ***but does not include capital work in progress to the extent not capitalised in fixed assets (emphasis supplied)****. It is further clarified that working capital shall not be included as part of regulatory base. It is further clarified that penalties and Liquidated Damages, if any, levied as per the provisions of the OMDA would not be allowed for capitalisation in the regulatory base. It is further clarified that the Upfront Fee and any pre-operative expenses incurred by the Successful Bidder towards bid preparation will not be allowed to be capitalised in the regulatory base."*

204. It would, therefore, appear that DIAL have not considered the following components as part of regulatory base in conformity with the above mentioned explicit provision of the SSA:

(i) Working Capital; and

(ii) upfront fees and pre-operative expenses.

205. However, the consideration by DIAL of "in addition to the interest during construction, additional capitalisation for the financing allowance being the amount due on equity invested (including quasi-equity), foregone at the WIP stage" as part of the regulatory base does not appear to be acceptable in view of the provisions of the SSA.

206. The provision of the SSA quoted above provides that WACC returns should be provided for *"Regulatory base pertaining to Aeronautical Assets and any investments made for the performance of Reserved Activities etc. which are owned by the JVC, after incorporating efficient capital expenditure* ***but does not include capital work in progress to the extent not capitalised in fixed assets".*** Put differently, the SSA provides that WACC returns on regulatory base should be on capitalized assets and not on capital work in progress. The SSA also does not provide for returns on capital work in progress to be provided subsequently in deferment, upon capitalization of the asset.

207. In view of the above, it is proposed that the financing allowance claimed by DIAL as part of the regulatory base for aeronautical assets should not be considered for the purpose of tariff determination.

208. The impact of not considering such financial allowance as part of the regulatory base on the 'X' factor would be as follows:

	X Factor as per DIAL submission		X Factor after not considering financial allowance as part of regulatory base	
Impact of not considering financial allowance as part of RAB	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-723.68%	-132.63%

c. Weighted Average Cost of Capital (WACC)

Means of Finance

209. DIAL have submitted that their means of finance for the project cost of Rs.12,857 Crores were as under:

Particulars	Firmed up Cost (INR Crore)
Equity	
Equity	1,200
Additional Equity	1,250
Internal Accruals	50
Quasi Equity (Lease Deposits / Trade Deposits)	1,471
Total Equity	**3,971**
Debt	
Rupee Term loan	3,650
External Commercial Borrowing (ECB)	1,616
Additional Debt proposed*	97
Total Debt	**5,363**
Airport Development Fee (incl. additional)	**3,523**
Total	**12,857**

210. **Equity:** The total equity infused by promoters is Rs. 2,500 Crores (Rs.2,450 Crores by way of Equity and internal accrual of Rs.50 Crores).

211. **Quasi Equity:** DIAL leased out 45 acres of land (Non-Transfer Assets) and the Security Deposit of Rs. 1,471.51 Crores from this transaction was used by DIAL to part finance the project. According to DIAL the Non-Transfer

Assets are Non-Revenue Share Assets and are not to be used to subsidize determination of tariffs for aeronautical services.

212. In their submission, DIAL have stated that these assets are outside the regulatory till and it was not mandated for DIAL to use these fund for financing the project. Considering that the these funds have been utilized for financing the project, DIAL have stated that they should be provided a fair return on these funds which has opportunity cost. DIAL have further submitted that these funds are quasi-equity by nature given their super long tenor and being culled out from a bottom-line impacting revenue stream. On this basis, they have submitted that they have considered an equity return on these funds.

213. **Debt**: DIAL have submitted that the debt for the project was Rs.5,266 Crores comprising Rupee Term Loan of Rs. 3,650 Crores and External Commercial Borrowings (ECB) of Rs. 1,616 Crores and that the lenders had expressed their concern on raising further debt in the company as this would lead to serviceability issues. However, a notional debt of Rs.97 crores has been assumed by DIAL on account of disallowance proposed in DF.

214. **DF**: MoCA had approved collection of DF from embarking passengers for a period of 3 years, on NPV basis which, as on 01.03.2009, worked out to Rs. 1,827 Crores ***(apparently inadvertently mentioned as Rs.1817 crores in their concept document for allocation of assets)***. In addition to the above, an additional DF of Rs. 1,696 Crores (NPV) to complete the project has been reduced upfront from the Regulatory Asset Base.

215. The Authority has vide its Order No.28/2011-12 dated 14.11.2011 finalized the project cost and also determined the levy of DF at IGI Airport, New Delhi by DIAL. In its Order, the Authority has noted that an amount of Rs.1484.08 crores stands collected as on 01.06.2011. Further, the Authority has identified a confirmed funding gap of Rs.1230.27 crores to be bridged through DF in Stage 1 and an additional amount of Rs.701 crores as the funding gap in case the costs (not incurred as on 31.03.2010) are incurred in Stage 2. Hence the total DF amount that will be required to be reduced upfront from the project cost shall be Rs. 3415.35 crores. This amount includes an amount of Rs.350 crores towards the cost of ATC

Tower, which as dicussed in paras 81 to 84 above, is not being included in the RAB ab-initio.

i. ***Cost of Debt:***

216. DIAL submitted the following details on the components of current and forecast debt over the proposed five year regulatory period:

Debt facility	Amount (INR Crores)
Rupee Term Loan	3,650
External Commercial Borrowing	1,616
Proposed additional debt	97

217. It has been stated that the cost of debt needed to be determined with reference to the cost of the different tranches within the rupee term loan and the external commercial borrowing facility.

218. Rupee Term Loan: DIAL submitted that they had signed a rupee facility agreement with a consortium of ten domestic lenders for Rs.3,650 Crores with door to door tenor of 17 years. The significant terms and conditions of the Rupee Term Loan were submitted to be as under:

Particulars	**Terms and conditions**
Nature of Facility	Rupee Term Loan
Amount of Facility	INR 3,650 Crores
Door to Door Tenure	17 Years
Average Maturity	13.5 Years
Pricing	Sub BPLR Interest Rate decided on the Date of Drawdown

219. DIAL submitted, in their original tariff application, that the weighted average cost of debt for the Rupee Term Loan up to FY 2010-11 was 10.62% p.a. and this rate was reset upwards by the rupee lenders at 11.75% p.a. Seeing the hardening trend of interest rates, DIAL forecasted a nominal increase of 50 basis points every year for each of the financial year 2012-13 and 2013-14.

220. However, vide their submission dated 15.11.2011, DIAL stated that the above rates have been more recently increased to 12.17% p.a. and that the earlier assumption needs to be amended in the financial model. DIAL have requested the Authority, vide the above submission, to accordingly

revise the rupee debt cost to 12.17% p.a. for the year 2011-12 with the earlier assumption of 0.5% p.a. year on year increase in interest rate continued for the subsequent years.

221. DIAL submitted that apart from the increase in interest rates witnessed by them in the recent past, their justification for the assumption of 0.5% p.a. year on year increase in interest rate was that the RBI repo and reverse Repo rates as well as the PLR of most of the banks have been on a constant rise in recent months. Details of such increases were provided by DIAL as below:

RBI Rate Hike: - RBI increased its Repo and Reverse Repo rates 13 times as depicted in graph below. There has been an increase of 3.5% in repo and 4% increase in reverse repo rate since March 2010.

SBI PLR: - SBI PLR has increased 2.5% (from 12.25% to 14.75%) since august 2010.

Date	***Prime Lending Rate* (SBAR - State Bank Advance Rate)**
13-Aug-11	14.75
11-Jul-11	14.25
12-May-11	14.00
25-Apr-11	13.25
14-Feb-11	13.00
03-Jan-11	12.75
21-Oct-10	12.50
17-Aug-10	12.25

ICICI Bank Prime Lending Rate (I-Bar): - ICICI Bank PLR (I-BAR) also increased 3% (from 15.75% to 18.75%) since June 2009.

Date	***Prime Lending Rate* (I-BAR - ICICI Bank Benchmark Advance Rate)**
13-Aug-11	18.75
04-Jul-11	18.25
07-May-11	18.00
24-Feb-11	17.50
03-Jan-11	17.00
06-Dec-10	16.75
18-Aug-10	16.25
05-Jun-09	15.75

222. External Commercial Borrowing: DIAL stated that they had entered into an External Commercial Borrowing (ECB) Facility Agreement for USD 350

million. In the recent period, the weighted average cost of debt for the ECB facility was 7.76% and the same has been used for the purpose of calculating the weighted average cost of capital (WACC).

Observations on Cost of Debt

223. DIAL were requested to submit Auditor's certificate(s) supporting their submissions on the rates of interests for the Rupee Term Loan as well as their ECB Facility.

224. DIAL submitted a certificate dated 3rd Nov 2011 from their Statutory Auditors M/s Brahmayya & Co., wherein the Auditors certified that the weighted average interest rate was 12.17% as on 18th Aug 2011 for Rupee Term Loan amount of Rs. 3,650 Crores.

225. DIAL also submitted a copy of the Rupee Facility Agreement among DIAL (The Borrower) and ICICI Bank Limited (Rupee Facility Agent), AXIS Bank Limited (Security Trustee) and Banks/FIs (The Rupee Lenders).

226. In the above agreement dated 7th Dec 2007, following is mentioned regarding rate of interest and reset thereon:

"The Borrower shall pay to the Rupee Lenders, interest on the respective Advances for the Interest Period at the Lending Rate. The Rupee Lenders shall notify to the Borrower and the Rupee Facility Agent, the Lending Rate for each Advance on the date of Drawdown of that Advance.

The Lending Rate shall be reset after the expiry of 36 months from the Initial Drawdown Date (hereinafter referred to as the ***"First Interest Reset Date"****). Thereafter the Rupee Lenders may reset the Lending Rate on the expiry of every 36 month period thereafter during the currency of the Rupee Facility, and the Borrower shall pay interest on the Loan at the reset Lending Rate (each date on which interest is reset being an* ***"Interest Reset Date"****) commencing from such Interest Reset Date, to be paid on and from the next Interest Payment Date immediately following such Interest Reset Date. The Rupee Lenders shall notify to the Borrower and the Rupee facility Agent of such reset Lending Rate on each Interest Reset Date.*

Provided however, after the final Drawdown, a Rupee Lender may, in its sole discretion, after providing 5 (five) days' notice to the Borrower, charge interest on its Advances at the weighted average of the Lending Rates applicable to all its respective Advances.

Provided further that the interest payable by the Borrower shall be subject to the changes in the interest rates made by the Reserve Bank of India from time to time."

227. Further, DIAL have submitted copy of letter from one of their Bankers on the reset of rate of interest on term loan wherein the Bank has indicated that the reset of the spread to be done annually.

228. The Authority, in its Order No.13/2010-11 dated 12.01.2011, had decided that *"For estimating the cost of debt, the Authority will consider the forecast cost of existing debt likely to be faced by the airport, subject to the Authority being assured of the reasonableness of such costs based on review including of the sources, procedure and method through which the debt was raised. For future debt likely to be raised over the control period or debt which is subject to a floating rate, the Authority may use forecast information on the future cost of debt, subject to the Authority being assured of the reasonableness of such costs, based on a review including of its sources, procedures and methods to be used for raising such debts."*

229. In view of the above and the fact that the actual cost of Rupee Term Loan for 2011-12 has been adjusted upwards at 12.17% p.a., as certified by DIAL's Statutory Auditors, the Authority proposes to consider the same as the base cost of domestic debt for forecast of future cost of debt.

230. As stated earlier DIAL have considered an upward revision of 0.5%p.a. in the interest rates. This assumption has been justified on the basis of continued increase in RBI repo and reverse repo rates since March, 2010 and a similar increase in SBI PLR. The Authority notes that while it is possible that this trend may continue for some more time to come, the contrary view is that the interest rates may have peaked and may not increase further. In fact in its "Mid Quarter Monetary Policy Review: December, 2011", the RBI have decided to keep the policy repo and reverse repo rates unchanged. Further, as per media reports, recently one

of the major Public Sector Banks (Union Bank of India) has revised the minimum lending rates downwards by 10 basis points.

231. In view of the above, the Authority proposes not to accept the increase of 0.5% p.a. proposed by DIAL in the future cost of debt.

232. The impact of considering the adjusted cost of domestic debt of DIAL of **12.17% p.a. (leaving unchanged DIAL's assumption of 0.5% p.a. year on** year increase in interest rates in future years) on X factor is be as under:

	X Factor as per DIAL submission		X Factor after considering base cost of domestic debt at 12.17% p.a.	
Base cost of domestic debt at 12.17% p.a.	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-779.73%	-138.52%

233. The sensitivity of not considering the 0.5% p.a increase in cost of debt is as under:

	X Factor as per DIAL submission		X Factor after considering base cost of domestic debt at 12.17% p.a. and annual increase in debt as 0%	
Base cost of domestic debt at 12.17% p.a. and annual increase in debt as 0%	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-773.65%	-137.87%

234. As stated earlier, DIAL have raised ECB amounting to US$ 350 million and in their tariff proposal projected this amount as Rs.1616 crores. The amount of Rs.1616 crores was also reflected by DIAL in their submissions relating to levy of DF.

235. **It has now come to notice of the Authority, based on certification by DIAL's** Statutory Auditors, that the equivalent amount of External Commercial Borrowing received in India Rupees was Rs. 1,591.79 Crores based on conversion rates applicable on the dates of withdrawal.

236. Since the Auditors Certificates are based upon the actual conversion rates applicable on dates of withdrawal, it may be appropriate to consider the figure of Rs.1591.79 crores in rupee terms towards ECB.

237. Further, DIAL have shown a Forex Adjustment of Rs. 11.65 crores and Rs. 12.93 crores in FY 2010-11 for ECB Loan facility. DIAL have further proposed Rs. 11.65 crores adjustment in RAB in FY 2010-11 and Rs. 12.93 crores adjustment in CWIP for FY12.

238. The Authority, in its Order No.13/2010-11 dated 12.01.2011, had stated that it shall not consider any adjustments related to foreign exchange variations while determining the tariff for aeronautical services. In line with the view taken by the Authority in the above referred Order and Guidelines, it is proposed not to consider any adjustments related to foreign exchange variations and disallow foreign exchange adjustments from ECB Loan facility as well as RAB. The impact of this disallowance is as under:

	X Factor as per DIAL submission		X Factor change in assumptions due to disallowance of the Foreign Exchange Variation	
Foreign Exchange Variation	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-772.64%	-137.76%

ii. ***Cost of Equity:***

239. DIAL have submitted that given the importance of an accurate estimate of the cost of equity, they had mandated an independent study by consultancy firm Leigh Fisher for this purpose. The study of Leigh Fisher is based on Capital Asset Pricing Model (CAPM) and considers in detail, the risk free rate in India, the risk premiums and airport betas. The study is specific to DIAL and the recommended cost of equity is 25.1%. In line with this recommendation, DIAL have taken a marginally lower number of 24% as the cost of equity.

Observations on Cost of Equity

240. The Authority had, in its Consultation Paper No.03/2009-10 dated 26.02.2010, stated that it recognizes that the assessment of the cost of equity will be highly material to the Authority's reviews of airport charges. The Authority considers that the CAPM is the most appropriate approach for determining the cost of equity. However, the CAPM approach will potentially result in a wide range of results, depending on assumptions made around different components of CAPM and where the range of results derived from

CAPM is considerable, the Authority will consider the application, where appropriate, of benchmarks for the cost of equity, most notably from other regulatory estimates, but recognizing the differences in risk profiles between sectors. In estimating the cost of equity the Authority will also take account of:

- the issues reported in regulatory consultation papers, responses to those papers and decision papers supporting those decisions;
- differences in the structure or operation of the respective regulatory regimes compared with that operated by the Authority;
- any differences in the commercial environments of the respective airports compared with those in India;
- decisions relating to cost of equity assessments made by other regulators in India and comparable jurisdictions;
- other aspects of the overall regulatory regime (e.g. forecasting error correction term etc.);
- any other relevant academic or other studies and, in particular;
- responses to the Authority consultation by airports, users and other interested parties.

241. The Authority has, in its Order No.13/2010-11 dated 12.01.2011, stated that the it shall adopt the CAPM as the most appropriate approach for determining the cost of equity. However, depending on the circumstances of a particular case, the Authority will not be precluded from considering a range of evidence relating to its assessment of the cost of equity.

242. The Authority has in the past noted that none of the private airports are listed companies. Therefore, the equity betas for these companies are not available thereby making the task of assessing the RoE difficult. In this background, the Authority had requested the National Institute of Public Finance and Policy (NIPFP), New Delhi to estimate the expected cost of equity for the private airports at Delhi, Mumbai, Hyderabad, Bangalore and Cochin.

243. Director, NIPFP has, vide DO letter dated 13.12.2011, forwarded the Report (portion relevant to IGI Airport, New Delhi at **Annexure -IV**). The salient features of the Report are as under :

(i) Keeping in view the Authority's decision, the CAPM has been used for estimating the cost of equity.

(ii) The Risk free rate (Rf) has been assessed as 7.35% on the basis of arithmetic average of daily yield on 10-year Government of India bonds over the period from January 1, 2001 to December 31, 2010.

(iii) The Equity risk premium (Rm – Rf) has been assessed as 6.71% taking into account the historical risk premium of 4.31% for the US markets (geometric average of premium for stocks over treasury bonds over the period of 1928-2010) and a risk spread of 2.4% for India (given the local currency sovereign rating of Ba1).

(iv) An average asset beta of 0.51% has been estimated on the basis of information in respect of 27 foreign airport companies. This average asset beta has been recommended to be adjusted to 0.4 keeping in view the risk mitigating factors.

(v) The asset beta of 0.4 has been relevered on the basis of market value of equity (Rs.5316 crores estimated by Banks of America – Merrill Lynch, August, 2011) to estimate the equity beta of 0.8.

(vi) Corresponding to asset beta of 0.5, the estimated equity beta is 1.

(vii) The cost of equity for DIAL has been estimated in the range of 12.70% (equity beta=0.8, if asset beta = 0.4) and 14.06% (equity beta=1, if asset beta = 0.5).

(viii) The report also comments on the estimates submitted by other agencies namely Jacobs Consultancy's report for HIAL, Leigh Fisher Management Consultant's report for DIAL, KPMG's report for APAO and KPMG's report for AAI. It has been brought out that the differences in NIPFP estimates and the estimates submitted by the other agencies are arising due to :

(a) Choice of index and time period for estimating equity risk premium;

(b) Selection of comparative airport companies for estimating beta; and

(c) Equity value used for relevering.

244. It is observed that the estimation of cost of equity (RoE) is a technical matter and requires expert assessment and computation. NIPFP is a centre for advanced applied research in public finance and public policy. It is an

autonomous society which is widely believed to be used as a think tank by the Ministry of Finance and other Government departments/ agencies. NIPFP report also discloses the reasons for differences in the RoE estimates suggested in the reports prepared at the instance of the airport operators. In view of this, the Authority proposes to consider the estimates suggested in the NIPFP report.

245. It is observed that NIPFP report suggests cost of equity of 14.06% corresponding to equity beta of 1 if asset beta is taken as 0.5. However, if the asset beta is adjusted downwards to 0.4 after accounting for risk mitigating factors, the cost of equity works out to 12.70%. The report acknowledges two factors in this respect namely monopoly and UDF. In respect of monopoly it has been stated that "*Typically, such monopoly power is expected to decrease the Beta for an enterprise*". However,the report also states that "*monopoly is also applicable in at least some of the foreign airport companies whose Beta estimates we have used for computing the average asset Beta. So we are not adjusting the Beta estimate for this factor*". As regards UDF as a mitigant, the report recommends downward adjustment of asset beta to 0.4 but with the following caveat:

> "*….we are given to understand that it is only over the past 3-4 years that this instrument has been extensively used. Therefore, sufficient historical data is not available to estimate how well will UDF as a mitigant work to reduce the Beta for the respective airports. So, we have to estimate the impart as Beta, based on an a priori understanding of how this might work, and then revisit the estimate once we have data on its effectiveness during the coming years.*"

In view of this caveat it would appear that, presently, adjustment of asset beta downwards for UDF as a mitigant may not be sufficiently justifiable. Further, in the present determination, only 2 years of regulatory period would be left for operationalistion of tariff. Though, DIAL have proposed charging of UDF during this period, since any true up would be possible only in the next regulatory period, there is no practical likelihood of UDF being used as a tool to recover a revenue shortfall during the current regulatory period. In this light, the Authority does not propose to accept

the proposed downward adjustment of asset beta to 0.4. Accordingly, the Authority considers 14.06% (say 14%) as the recommended cost of equity.

246. During several discussions with the merchant bankers, regulated entities, mutual funds etc., it has been suggested that the Authority should benchmark its proposed return on equity with the returns given by other sectoral regulators. Otherwise, the airport sector will be perceived as less attractive for investment, which will not be in the long term interest of the sector. In this background, an attempt has been made to review the RoE in other sectors.

247. Central Electricity Regulatory Commission (CERC), in its Terms and Conditions of Tariff Regulations for 2009-14 issued on 20.01.2009, vide regulation 15, computes the RoE at the base rate of 15.5% in the manner indicated therein. The Authority, has noted that in its regulatory framework the Corporate Tax is being allowed as a cost pass through and the RoE on CAPM.

248. It is understood that State Electricity Regulatory Commissions normally consider 16% as cost of equity in respect of distribution companies.

249. In the Port sector, the Tariff Authority of Major Ports (TAMP) is understood to be using 16% as return on equity. However, the model of tariff determination of TAMP is understood to be different – TAMP finalizes and announces the tariff upfront and then bids out with revenue share as the decision or selection parameter.

250. In case of National Highways, the NHAI is also understood to determine the toll upfront. In a recent report, a Committee headed by Shri B.K. Chaturvedi, Member, Planning Commission has stated that Equity IRR of upto 18% may be acceptable for certain types of projects.

251. Another issue which has been raised from time to time is that at the time of restructuring of Delhi and Mumbai airports a "Bid WACC" of 11.6% had been considered. As per a clarification issued at the relevant time this was based on an assumption of post tax cost of equity and debt of 22.8% and 6.0%, respectively. Therefore, the bidders were "assured" of a RoE of 22.8%.

252. This matter has been discussed earlier in the section pertaining to hypothetical regulatory base. As has been brought out therein, it is evident from the clarification that WACC of 11.6% given in the RFP was only **"indicative" and for the purpose of ensuring consistency between the** Business Plans submitted by the Bidders as part of their offer. Therefore, there appears to be no substance in the argument that a WACC of 11.6% and RoE of 22.8% was assured to the bidders. As such, treatment of 11.6% **as "Bid WACC" is completely misplaced and incorrect. Briefly, the WACC of** 11.6% was only indicative for comparison purposes and cannot be construed as assured return by any stretch of imagination.

253. Keeping in view the discussion above, the sensitivity has been considered for RoE of 14%,16% and 18% which is as under:

Sensitivity - Impact on X Factor from Cost of Equity

	X Factor as per DIAL submission		X Factor after change in assumptions	
Cost of Equity @	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
18%	-774.30%	-137.94%	641.04%	-122.93%
16%	-774.30%	-137.94%	-598.07%	-117.75%
14%	-774.30%	-137.94%	-555.81%	-112.46%

254. In view of its significance, the Authority has given a detailed consideration to the issue at hand. It has also noted the range of estimates of RoE as calculated by NIPFP in accordance with the CAPM framework adopted by the Authority. It is however felt that there is a case for considering an upward adjustment for the following reasons – This is the first case of tariff determination by the Authority and as such a strong signal needs to be given to the investors; other infrastructure regulators are offering a RoE in the range of 16%. **Further, the Authority has been informed vide MoCA's** letter No.AV.24032/037/2011-AD dated 30.12.2011, that matter regarding **" Regulatory Approach of AERA - fair rate of Return on Equity (ROE)" is** under examination in the Ministry and that the views of the Ministry thereon would be made available in due course of time. However, for the purpose of this Consultation Paper **seeking stakeholder's considered** responses and keeping in view the aforesaid factors, the Authority has

considered 3 different costs of equity mentioned in para 253 above, giving sensitivity for each number. For the purpose of the Aggregate Revenue Requirement and consequent impact on the tariff the Authority has, for the present, considered 16% as an estimate of RoE for DIAL. The Authority would like to request the stakeholders to specifically comment on this important issue.

Treatment of Refundable Interest-free Security Deposits (RSD)

255. As indicated above, DIAL have stated that the refundable interest-free security deposits (RSD)/Commercial Property Development (CPD) (repayable after 57 years) totally amounting to Rs. 1471.51 crores, which it used for financing the project, should be treated as quasi-equity in view of certain features of such funds mentioned below and cost of equity (proposed by DIAL at 24%) applied to compute WACC:

    a. These amounts are culled out from a bottom-line impacting revenue stream.
    b. The amount is not repayable during the term of concession – same as in case of equity.
    c. The utilization of the money is at the discretion of the shareholders and had no limitations.
    d. The money could have been invested in any other venture and/or developing Non Transfer Assets/Non Aeronautical Assets by DIAL and has opportunity cost of equity.
    e. The amount has been used to finance the RAB and as such it needs to be serviced.
    f. Lenders have also treated this amount as equity to compute debt-equity ratio for lending purposes.

256. To further support their proposal, DIAL submitted that the amount was generated through what are termed as Non-transfer Assets (NTAs) and that DIAL is permitted to monetize land of about 210 acres of which, in the first instance, it monetized 45 acres and obtained this security deposits. DIAL submitted that it was free to utilize the amount obtained through land monetization as it deemed appropriate and that as a corollary, DIAL was not required under any agreement to use the money for the project.

Observations in respect of RSD

257. Above submission of DIAL has been examined. It is observed that while Equity is not defined under the SSA, OMDA defines equity as under:

*" **'Equity'** shall mean the paid-up share (equity and preference) capital of the JVC and shall include any Sub-ordinate Debt advanced by shareholders of the JVC to the JVC, provided that the Lenders' or their agent classifies such Sub-ordinate Debt as equity and conveys the same by a written notice to the AAI; provided however that notwithstanding the foregoing, any amounts that have been infused in the JVC as paid-up share capital or Subordinate Debt would not be classified as 'Equity' to the extent that such amount do not related to Transfer Assets."*

258. It is to be noted that the above definition is exhaustive in nature and not inclusive. Therefore, only the items specifically stated therein can be considered as "equity" and it may not be permissible to include any other items therein.

259. The land in question was leased to DIAL which delineated 45 acres for development in the first instance and received the amount as interest-free security deposit. In view of the nature of transaction, the amount was received by DIAL as a corporate entity. As such, with reference to the definition of Equity under OMDA, such amount is neither paid-up share capital nor subordinate debt advanced by shareholders of DIAL to DIAL.

260. As regards DIAL's argument that this amount was available to DIAL to be used as it wished, and without the requirement of using it for the airport project, this appears to be a matter of interpretation of the covenants of SSA and OMDA, which is in the domain of GoI and AAI. However, it is observed from the records that the DIAL have been consistently projecting RSD as a distinct head in the means of finance and separate from equity. Further, DIAL have been permitted to levy DF after exhausting all other means of finance including RSD. The Authority has separately stated that it will permit DF only as a measure of last resort. Therefore, DF would not have been permitted to DIAL in case it would have applied a ready source of finance like RSD for any other purpose. In this light, the argument that

RSD amount was available to DIAL to be used as it wished can at best be termed as hypothetical.

261. The cost of this amount to DIAL is zero as the security deposits are interest free. Further, SSA contemplates a return on RAB on WACC basis which has been defined therein as under :

"WACC = nominal post-tax weighted average cost of capital, calculated using the marginal rate of corporate tax"

Thus, WACC has to be calculated by taking into account the cost of each component of capital, which in the case of RSD is zero. In this light, the Authority is not persuaded to consider RSD as quasi-equity and proposes to consider its actual cost, i.e., zero for computation of WACC.

262. The impact of considering a 0% cost of the RSD on WACC on the 'X' factor is analysed as under: .

	X Factor as per DIAL submission		X Factor after considering 0% cost of RSD	
Cost of RSD at 0%	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-589.82%	-116.73%

263. As regards the argument of DIAL that such fund had an opportunity cost, the nature of opportunity cost to the project itself is debatable. However, the impact, on WACC and the tariff increase requirements, of taking into account the weighted average cost of debt as the opportunity cost of the RSD to the project has been considered. The impact on 'X' factor are found to be as under:

	X Factor as per DIAL submission		X Factor after considering cost of domestic debt as the opportunity cost of RSD to the project	
Cost of Deposits at Weighted Average Cost of Debt i.e., 10.53%	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-669.19%	-126.23%

264. Another aspect which needs to be considered herein is that while DIAL is not required to pay any interest on subject deposits, it would need to return

the same after 57 years. It is to be observed that the assets funded out of RSD are part of RAB on which depreciation is admissible. Therefore, there appears to be no need to separately provide for repayment of RSD.

265. The computation of WACC based on the change in assumptions made in respect of Cost of Debt, by treating the cost of RSD at 0% and at different estimates of cost of equity, considered earlier, is as under:

Sl.No.	Cost of Equity @	WACC
1.	14%	9.81%
2.	16%	10.33%
3.	18%	10.86%

266. In line with the position indicated in para 254 above, the Authority proposes to consider a WACC of 10.33% (based on 16% cost of equity) for the present exercise.

d. Depreciation

267. DIAL in their submission have stated that:

"Depreciation is the Return of Capital and is dependent on the life of the underlying assets. Depreciation has been computed as per schedule XIV of the Companies Act 1956."

268. DIAL further stated that "no depreciation has been charged on asset funded from Development Fund grant".

269. Further, the tariff model submitted by DIAL was found to be calculating depreciation with reference to closing RAB values in respective years.

Observations

270. According to Schedule 1 of the SSA:

"D = depreciation calculated in the manner as prescribed in Schedule XIV of the Indian Companies Act, 1956. In the event, the depreciation rates for certain assets are not available in the aforesaid Act, then the depreciation rates as provided in the Income Tax Act for such asset as converted to straight line method from the written down value method will be considered. In the event, such rates are not available in either of the Acts then depreciation rates as per generally accepted Indian accounting standards may be considered."

271. According to Schedule XIV of the Indian Companies Act, 1956:

"Where, during any financial year, any addition has been made to any asset, or where any asset has been sold, discarded, demolished or destroyed, the depreciation on such assets shall be calculated on a pro rata basis from the date of such addition or, as the case may be, up to the date on which such asset has been sold, discarded, demolished or destroyed."

272. The Authority vide its Order No. 13/2010-11 dated 12th January 2011 and Guidelines embodied in Direction No.5/2010-11 issued on 28th February 2011 envisaged that:

"For projecting depreciation on forecast of assets to be commissioned or disposed off during a Control Period, it shall be assumed that such assets have been commissioned or disposed of half way through the Tariff Year and depreciation related to such assets shall be calculated pro-rata."

273. In other words, the Authority has taken a view that depreciation of assets to be commissioned or disposed off during a Regulatory Period should be calculated pro-rata considering that such assets have been commissioned or disposed of half way through the Tariff Year.

274. This aspect was discussed with DIAL in a meeting held on 09.11.2011, wherein DIAL agreed to the methodology proposed by the Authority and the tariff model was changed to incorporate the same - calculating depreciation on average RAB values rather than on the closing RAB values. Further, DIAL have also submitted Auditors Certificate dated 03.11.2011, indicating the amount of depreciation.

<u>Depreciation of Hypothetical RAB</u>

275. DIAL have proposed that the Hypothetical RAB may be depreciated on a tariff year wise average depreciation rate for aeronautical assets. In this regard there is no specific provision in the SSA. However, it is to be observed that Hypothetical RAB is the part of the opening RAB (RB_o) for the first regulatory period. SSA also provides that RB for year 'i' has to be determined in the following manner :

$$RB_i = RB_{i-1} - D_i + I_i$$

Therefore, the RB for year '1' would be determined as under :

$RB_1 = RB_o - D_1 + I_1$

Thus, it can be inferred that RBo as a whole, i.e., inclusive of Hypothetical RAB would need to be depreciated.

276. It is to be further observed that hypothetical RAB if not depreciated would imply continuing with hypothetical assets in the regulatory books in perpetuity and providing returns thereon also in perpetuity.

277. **In view of the above, DIAL's claim of allowing depreciation on hypoth**etical RAB appears to be acceptable. In case the hypothetical RAB is not to be depreciated, the impact thereof is analysed as follows:

	X Factor as per DIAL submission		X Factor after not considering depreciation on Hypothetical RAB	
No depreciation of Hypothetical RAB in the control period	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-756.07%	-136.05%

278. However, the issue which arises in case the hypothetical RAB is to be depreciated is the rate of depreciation which should be applied to hypothetical assets. In this respect following options appear to be available:

(i) A tariff yearwise average depreciation rate for aeronautical assets may be applied as proposed by DIAL which works out to the hypothetical RAB getting fully depreciated in about 26 years; or

(ii) Hypothetical RAB is being determined at the commencement of fourth **year leaving a remainder of 27 years of the "Term". Therefore, it** could be depreciated based on straight line method for a period of 27 years.

(iii) As per clause 18.1 of OMDA, DIAL have a right to extend the original term of 30 years by an additional term of 30 years. In the development of CPD, DIAL have raised deposits for 57 years indicating a sub lease for 57 years. In this light, the Hypothetical RAB could be depreciated based on straight line method for a period of 57 years.

279. If the Hypothetical RAB were to be depreciated (based on straight line method) over the period of 57 years, the impact on X factor would be as under:

	X Factor as per DIAL submission		X Factor after considering depreciation on Hypothetical RAB based on straight line method for a period of 57 years	
Depreciation based on straight line method for a period of 57 years	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-764.29%	-136.91%

280. If the Hypothetical RAB were to be depreciated (based on straight line method) over the period of 27 years, the impact on X factor would be as under :

	X Factor as per DIAL submission		X Factor after considering depreciation on Hypothetical RAB based on straight line method for a period of 27 years	
Depreciation based on straight line method for a period of 27 years	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-773.42%	-137.85%

281. The Authority finds that the option of depreciating the hypothetical RAB at the tariff yearwise average depreciation rate for aeronautical assets, as proposed by DIAL, is most appropriate for the reason that hypothetical RAB having got subsumed in RB_o should be depreciated at the rate at which other components of RB_o depreciate. Accordingly, the Authority proposes to accept depreciation of hypothetical RAB at the tariff yearwise average depreciation rate for aeronautical assets.

e. Operating Expenses

Operation and Maintenance Expenses

282. DIAL submitted that the SSA allows for the recovery of efficient operating and maintenance expenses (O&ME) pertaining to aeronautical services and

adopted the following principles to determine the efficient aeronautical operating and maintenance costs:

a. In line with the principle of allowing efficient cost recovery as enshrined in SSA, all aeronautical O&ME incurred by DIAL has been considered, in computing target revenue requirement.

b. Any savings in O&ME during the control period beyond the forecast shall accrue to DIAL. (As per DIAL this will create an incentive for DIAL to identify savings which aids to innovation and will benefit users in the subsequent regulatory period).

c. Uncontrollable costs will be a pass-through. DIAL have assumed that uncontrollable costs include other genuinely uncontrollable operating costs like statutory operating costs (including but not limited to DGCA, Customs, Immigration, etc.), property taxes, safety and environment cost, cost variance due to increase in service levels, exchange rate, etc. Further, any change in direct and indirect tax, should be allowed as pass-through.

283. DIAL submitted that in accordance with the principle of efficiency as laid down in Schedule 1 of the SSA, only efficient costs are to be considered in the tariff building block while determining the target revenue. Therefore, the target revenue itself incorporates the efficiency factor and no additional improvement factor should be imposed on DIAL. Further, they furnished the basis and assumptions considered for each category and provided rationale and justifications for variance. In general, DIAL stated that the addition of new integrated Terminal 3 to the existing terminals, with improved level of service, was the primary reason for increase in the O&M expenses. DIAL submitted that the airport had an aggregate terminal floor area of less than 1 lacs sq.mtrs as against approx. 6.lacs sq. mtrs operational terminal area currently, and while this has resulted in 6 times increase in total area, resultant operating costs has increased only marginally. Further, they stated that in addition to the increase in terminal area, the airport was functioning with 3 fully operating runways as against 2 in the past.

284. Summary of Operating, Maintenance and Manpower Costs (Aeronautical) actual/projected by DIAL as per the initial submission dated 20.06.2011 is as under:

Rs. in Crores

Aero Expenses	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Staff Cost	91.28	125.11	131.36	144.82	152.07
Administrative General Expenses	60.05	101.96	127.37	133.74	140.42
Electricity & Water charges	31.21	60.82	121.66	125.31	129.07
Operating Expenses	113.12	166.25	243.96	240.24	250.25
Airport Operator Fee	25.16	31.44	33.13	84.00	128.26
Property Tax	-	-	52.52	21.89	21.89
Total Aero Expenses	**320.82**	**485.57**	**710.01**	**749.99**	**821.95**

Manpower costs

285. DIAL submitted that in addition to the manpower deployed directly by them, manpower costs upto 02.05.2009 included a major portion pertaining to Operation Support, payable and mandated under OMDA Clause 6.1.4 to AAI, requiring DIAL to retain 100% AAI's existing staff base at IGIA for a period of three years from the Effective Date. DIAL have charged the operation support cost amount of Rs.312 Crores, incurred during this period, to the P &L Account (Rs.78 Crores in 2006-07; Rs.108 Crores in 2007-08; Rs.115 Crores in 2008-09 and Rs.10 Crores in 2009-10).

286. In the current filing, DIAL have estimated a 5% p.a. real increase in salaries and wages, keeping in mind their operating environment and also the attrition levels currently experienced by the airport industry in India which in their submission is getting transformed and maturing leading to high competition for the skilled talent, that is quite scarce. DIAL have also assumed a 5% increase in manpower numbers in financial year 2012-13 and also showed the manpower cost in the 2010-11 net of capitalization due to completion of project.

287. During the various discussions held as also during the validation of the DIAL's Financial Model, DIAL were requested to submit a note on their Wage Policy in support of the increase in unit staff costs projected by them

in the tariff model. DIAL, vide their email dated 19.11.2011, submitted a Note on Wage Policy and stated that the overall increase in salary cost is a function of following:

a. Increments on an overall basis on account of-
   - Inflationary; and
   - Business, competitive and retention factors.

b. Increase in number of employees.

Administrative and General Costs

288. DIAL submitted that the administrative cost category contains a number of types of costs, the most significant ones of which are consultancy expenses, advertisement, travel and communication costs, business promotion etc. and a majority of these costs are attributable to the airport as a whole. DIAL forecasted the administrative costs based on the actual data for 2010-11, escalated by 5% p.a. in real terms. Further, as compared to 2011-12, a portion of the cost in 2010-11 has been capitalized.

289. DIAL were requested to submit a note on the various components under Administrative and General Expenses as well as details on drivers and underlying basis for projection considered for them under the tariff model.

290. In their additional clarifications, DIAL stated that for 2011-12, the fund center wise break up of the Administrative and General costs have been submitted as part of the Financial Model and for future projections, 2012-13 onwards, they have assumed the same to increase by 5% in real terms, uniformly applicable to all the sub-heads under this category.

Operations and Maintenance Cost

291. **Operation Cost –** DIAL have submitted that the entire operation at the airport is carried out under the Operations department which carries out the most crucial functions ensuring that airport functions in a safe, efficient and smooth environment - both Airside and Terminal. The Operations Department is further sub-divided into (i) Airside operations, (ii) Airside Planning; (iii) Airport Operation Control Centre (AOCC); (iv) Airfield Rescue Fire Fighting (ARFF); (v) Baggage handling & Storage (BHS); (vi) Safety, Health and Environment (SHE); (v) Slot department and (vi) Terminal standards.

292. DIAL stated that the IT function has been outsourced to an independent entity through competitive bidding process which provides the IT solution to all users at the airport and the IT costs are forecasted based on payments due from DIAL to the joint venture company providing IT services. DIAL stated that any IT-related revenues received from end users are deducted and the deficit is borne by DIAL.

293. The housekeeping component of operations costs is projected to increase in 2011-12 due to the first full year of Terminal 3 operations.

294. DIAL further submitted that the Operations Costs committed in 2011-12 are based on individual departments and associated sub-activities (fund centre) and while some of the costs are through committed contracts the balance are forecasted based on individual department assessment. For the future years, DIAL forecasted expenses assuming 5% p.a. increase in costs due to higher level of activity. However in cases, where there were long term contracts, no escalation was considered.

295. **Maintenance Cost** - DIAL have submitted that repair and maintenance of the airport site primarily covering all airside, Terminal building and city side areas are undertaken by their Maintenance Department. DIAL also detailed the various sub-functions, under the Maintenance Department, which relate to the maintenance of earmarked activities that contribute to the overall maintenance costs. DIAL stated that the activities undertaken are unique which require specialized engineering and technical skills. The functions being carried out by the Maintenance Department are furnished in detail in DIAL's proposal.

296. DIAL submitted that increase in cost for 2011-12 is mainly due to first full year of Terminal 3 operations as compared to last financial year. The increase in total utility costs in 2011-12 as compared to 2010-11 is also principally due to commissioning of Terminal 3 and new Runway 29/11.The increase in maintenance cost associated with the first full year of Terminal 3 operations is partially offset by the decrease associated with the full year closure of Terminals 1A and Terminal 2.

297. The amount committed in 2011-12 is based on individual departments and associated sub-activities. In some cases, costs are committed through long

term contracts and the balance cost are forecasted based on individual department assessment of works to be undertaken. For future years, DIAL forecasted expenses assuming 5% p.a. increase in costs due to higher level of activity. However, in cases, where there were long term contracts, no escalation was considered.

Utility Costs

298. DIAL have calculated Utility Costs at gross level for both electricity and water less recoveries from the airlines and concessionaires. Costs under this head have been escalated by 3% p.a. in real terms on account of increase in consumption due to higher passengers and air traffic movements, based on the fact that going forward, there will be increase in the throughput of passengers and increased aircraft movements. Further, DIAL also stated that there is a scarcity of fossil fuels leading to abnormal increase in energy cost. The substantial increase in 2011-12 is due to the fact that 2011-12 includes the first full year of Terminal 3 operations.

299. DIAL, vide their submission dated 04.10.2011, submitted a revised model for the 5 year period taking in to account the higher cost of power owing to the recent increase in the power tariff.

Increase in EWC is as under (Rs in Crores)

Year	2009-10	2010-11	2011-12	2013-14	2013-14
Submission dated 20.06.2011	31	61	122	125	129
Revised submission 04.10.2011	31	61	133	151	155

Property Tax

300. DIAL stated that, in a recent development, both DIAL and AAI have been adjudicated to bear liability on account of property tax to the Municipal Corporation of Delhi. While AAI would settle its share of liability pre Effective Date, i.e., for period up to 02.05.2006, thereafter DIAL have to pay a sum of Rs.60 Crores for the period up to 31.03.2011 from the Effective Date. DIAL estimated the future liability on this account as approximately Rs.25 crores p.a based on the current property tax rates and

requested that additional demands of property tax in the future, from other civic bodies, should be allowed as a pass through.

301. DIAL were requested to explain the basis for increasing Electricity and Water Charges, Airport Operator Fee and Property Tax by inflation. DIAL agreed that Airport Operator Fee should not have been indexed to inflation whereas in respect of Property Tax they requested for a treatment commensurate with the fact that Property Tax is a statutory due.

302. DIAL in their additional clarifications to the Authority submitted that Electricity and Water Charges may increase in future as they perceived pending tariff adjustment requirements for these services. They submitted that they had projected an increase for such expenses based on inflation in view of the same. It was observed that Electricity and Water Charges are fixed by regulatory authorities/agencies and may not necessarily be linked to (CPI) inflation. They submitted that in the case of water charges, the same continues to remain highly subsidized and that while DJB spends Rs.24 to treat and supply a kilolitre of water, consumer pays around Rs.16. At present, DJB earns Rs.450 crores but it is not sufficient to meet its expenditure that runs into a few thousand crores. Even with the last hike, only another Rs.300 crores will come in from the 18 lakh metered connections. There are many important projects stalled because the utility has no money to pay for these and as such the trend is going to be of increase in the water charges and their assumption of an inflation linked increase in water charges is reasonable. However, in their final submissions, DIAL have stated that water charges are akin to payment of statutory dues and an approach can be taken to treat them accordingly.

303. In the matter of Electricity charges, DIAL submitted that Delhi Electricity Regulatory Commission (DERC) had increased power tariff at the rate of 22% across the board effective from 01.09.2011. Further, the new rates will be effective only for seven months as DERC will announce new tariffs in March 2012. DIAL submitted that DERC had also announced that the hike reflects only partial recovery of costs for power companies and the remaining dues would be adjusted over the next four years — clearly hinting at a series of tariff hikes in the years to come. Over and above this hike, power bills were also expected to show increases every three months

as DERC had allowed fuel price adjustment on a quarterly basis that will be implemented from October 2011. Under this adjustment, any variation in fuel cost incurred by utilities BSES Yamuna, BSES Rajdhani and NDPL will be passed on to the consumers as fuel surcharge every three months. The first fuel surcharge amount will be shown in the December bill. However, in their final submissions DIAL have stated that electricity charges are akin to payment of statutory dues and an approach could be taken to treat them accordingly.

Allocation Mechanism

304. DIAL have submitted that in a hybrid model, cost and assets are to be allocated for determining the target revenue over the regulatory period. Further, considering that the OMDA and the SSA define and also make a distinction amongst the following terms viz., Aeronautical charges; Aeronautical services; Aeronautical assets; Non-aeronautical assets and Non-transfer assets, DIAL in their submission have made these distinctions and the assets have been segregated and allocated.

305. DIAL submitted that based on the list of activities to be included in aeronautical services (as given in OMDA Schedule 5) the following key principles have been considered by them in allocating costs and assets :-

(i) ***Full allocation**: No Items should be missed out in allocation exercise.*

(ii) ***Attribution quality:** The methodology of measurement must be credible.*

(iii) ***Relevance**: The allocation must be used based on the relevant usage of that area.*

(iv) ***Consistency**: The methodology adopted must be applied consistently.*

(v) ***Continuity**: The methodology adopted for allocation of assets must also continue to apply to costs.*

(vi) ***Avoidable Cost**: the primary activity of the airport is to provide aeronautical services and the users should bear their full cost. The resources essential to the primary activity of operation of the airport, even if there were no secondary (non-aeronautical)*

activities should be allocable to aeronautical activities. Where, however, the presence of non-aeronautical activities has generated an additional requirement for space or facilities, which would otherwise have not been needed, these resulting avoidable costs should be regarded in full as non-aeronautical.

(vii) ***Transparency****: The allocation must be carried out in a transparent manner.*

306. Jacobs were engaged by DIAL to offer their advice on the allocation of airport operating expenses between aeronautical and non-aeronautical activities. The allocation of DIAL's operating expenses was conducted by Jacobs, in line with the high level principles outlined above. While there are certain costs which can be directly classified as Aeronautical and Non-Aeronautical, in respect of the costs which cannot be directly classified, relevant drivers have been used to allocate such costs. The main drivers that were reported to have been used for allocating operating costs as aeronautical and non-aeronautical were: direct allocation, area allocation, and asset base allocation. In line with these drivers and the principles outlined above, the major areas of cost were allocated as under:

a) **Manpower cost –** these costs have been analysed at department level and wherever possible, the allocation has been made directly in line with the split of activities such as:

- Aeronautical: DIAL airside operations;
- Non-aeronautical: commercial property development (CPD);
- Based on asset base: Common departments that function for the airport as a whole and cannot be identified separately for aeronautical or non-aeronautical activities such as legal and finance.
- The manpower cost of the commercial department has been apportioned as 50% aeronautical and 50% non-aeronautical.

DIAL's allocation of Manpower costs directly in line with the split of activities undertaken by the respective departments, was as under:

Basis of Allocation

Department/ Function	Basis of allocation
Operations	Direct allocation to aeronautical activities
APDE (Maintenance)	Pro rata to assets

Department/ Function	Basis of allocation
IT	Pro rata to assets
Legal	Pro rata to assets
Finance & Accounts	Pro rata to assets
HR	Based on average deployment of other departments
Quality	Direct allocation to aeronautical activities
Internal Audit	Pro rata to assets
Corporate Communication	Pro rata to assets
Corporate Relations	Pro rata to assets
Commercial	50% manpower is assumed for airlines marketing and recoveries.
CEO	Pro rata to assets
Security	Direct allocation to aeronautical activities
Property	Direct allocation to non aeronautical activities

b) **Non Staff costs –** DIAL have indicated that they have done a stepwise process of allocation of expenses amongst aero and non-aero segments as under:

- Total expenses of each department like Operations, Maintenance, etc. were identified.
- Thereafter the expenses of that department have been identified at activity level (fund centre). In this exercise the expenses have been identified and related to various activities like airside expenses, terminal expenses, runway lighting expenses, procurement expenses etc.
- Thereafter the activities were allocated amongst aero and non-aero based on the following principles:
  - The activities which could be directly attributable to aero assets were classified as aero like operation and maintenance of runways and taxiways etc.
  - The activities which could be directly attributable to non-aero assets were classified as non-aero like commercial/retail promotions etc.

- Terminal costs were allocated based on the area mix for the respective terminal as certified by M/s Jacobs Consultancy into aero and non-aero.
- Remaining unallocated common expenses of support functions like finance and accounts, legal, corporate communication, corporate relation, CEO office etc. were allocated based on the overall asset value allocation as mentioned in the foregoing section.

c) **Administrative cost –** the operations of DIAL were divided into several departments like operations, maintenance etc. These departments were submitted to have sub set of functions like Air Ground Lighting maintenance, terminal maintenance etc. which are called as fund centres. Jacobs have stated that a detailed analysis of the activity of these departments was undertaken and costs were allocated as either aeronautical or non-aeronautical based on the functions of these departments.

- The cost of fund centres which could be directly identified to aeronautical or non-aeronautical activities was allocated directly to aeronautical and non-aeronautical components respectively.
- The cost of common fund centres that could not be identified as either aeronautical or non-aeronautical but could be assigned to a specific terminal was allocated on the basis of the area allocation of respective terminals.
- The cost of common fund centres that could neither be identified as aeronautical or non-aeronautical nor be assigned to a specific terminal was allocated on the basis of allocation of the overall asset base.

d) **Operating and maintenance cost –** the operating and maintenance cost was analysed at fund centre level and the principles were submitted to have been applied here as used in the case of administrative cost.

e) **Airport property tax –** DIAL was required to pay a property tax to Municipal Corporation of Delhi (MCD) on all of the airport property including land and buildings. The same was allocated on the basis of the allocation of asset base.

f) **Utilities cost –** which includes cost towards power and water used at IGIA were considered net of recoveries made by DIAL from various retail tenants operating at IGIA. Accordingly, the entire non-aeronautical component was excluded from these costs and therefore, all of the utility cost included was submitted to be aeronautical in nature.

g) **Airport Operator fee –** under the terms of the OMDA, Schedule 8, DIAL was required to put in place an Airport Operator Agreement to ensure that DIAL operates, maintains and manages the Airport in order to meet stated service standards. The scope of services includes: general services, manager services and consultancy services. These encompass all services related to the operation and maintenance of aeronautical and non-aeronautical assets and since the services of the Airport Operator are being used for the airport as a whole, and not for specific sections or functions of the airport, there is no clear basis on which the cost can be allocated. Therefore, the Airport Operator fee was treated as an overhead and apportioned on the basis of pro-rata to other costs.

307. Considering that the Authority had in its Order No. 28/2011-12 dated 14.11.2011 excluded an amount of Rs.107 crores on account of Gross Floor Area exclusion, Jacobs have in their revised allocation certificate dated 21.11.2011 updated the operating expenses allocation based on the revision in T3 Gross Floor area allocation and RAB Allocation. While the base operating expense allocation has been carried out by DIAL, Jacobs have reviewed the principles on which the allocation is done and have certified the allocation.

Summary of Operating Expense Allocation for IGIA for FY 2011-12

	As per initial certification dated 14.06.2011		As per subsequent certification dated 21.11.2011	
Operating Expense	Aeronautical Cost (%)	Non-Aeronautical Cost (%)	Aeronautical Cost (%)	Non-Aeronautical Cost (%)
Manpower Cost	89.79	10.21	91.44	8.56
Administration Cost	70.28	29.72	71.11	28.89
O&M Cost	91.89	8.11	93.31	6.69
Airport Property Tax	90.99	9.01	90.69	9.31
Utilities Cost	100.00	0.00	100.00	0.00
Overall	**87.54**	**12.46**	**88.78**	**11.22**

Operating Costs of DIAL - Benchmarking Report by Leigh Fisher.

308. DIAL had also engaged M/s. LeighFisher International Management Consultants to provide various benchmarking data to help inform DIAL's discussion with the Authority.

309. LeighFisher, in their study, relied on data extracted from the published audited Report and Accounts of a range of airports around the world, supplemented in some cases by additional information requested from the airports. The overall approach taken is that financial measures were first calculated in units of local currency and then converted to a single unit of currency (Special Drawing Rights – SDRs), to enable comparisons to be made across multiple currencies. As per LeighFisher, a particular difficulty related to comparisons of airport performance is caused by the fact that the range of activities undertaken by different airports varies considerably. For example, a number of airports included in sample perform their own ground handling services or operate their own car parks, but many do not. A number of airports' Report and Accounts cover the activities of a national civil aviation administration, which in addition to operating the airports perform other functions such as the provision of air traffic control services. If this difficulty is not addressed, a number of performance measures, especially those related to staff numbers, are likely to be distorted. The approach taken by LeighFisher, to deal with this problem has been to identify those activities which do not constitute what can be regarded as being core to the operation of an airport, and to adjust the relevant data by deducting all revenues, costs and staff numbers associated with those additional activities. At the same time, it is reasonable to assume that if the airport did not itself carry out functions such as the operation of car parks it would appoint a concessionaire to do so, and that the concessionaire would pay the airport a fee. In these cases a notional fee is added back to the airport's revenues so as to allow like-with-like comparisons to be made with airports where concessionaires are actually in place. LeighFisher have stated that the initial selection criterion for comparator airports was that they should ideally be of a size comparable to DIAL in terms of its current passenger capacity of around 52 mppa (this figure makes allowance for the fact that capacity of around 10 mppa at Delhi is currently mothballed).

While there are a number of large US hub airports of this size most are not ideal for benchmarking purposes in an international context. This is partly because at many large US hubs one or more of the terminal buildings is operated by the airline(s) which use the airport as a hub, so the operating costs associated with those terminals are not borne by the airport. Second, at many large US airports there is a very heavy predominance of domestic traffic, so the airport's operating costs do not reflect the use of complex baggage sorting systems, and do not require space for Immigration and Customs areas, to the same extent as airports with a larger proportion of international traffic.

310. LeighFisher submitted that at this size the number of airports suitable for inclusion in a benchmarking sample is also limited by a lack of publicly available data for a number of important international hubs, including Dubai, Bangkok (Suvarnabhumi), Kuala Lumpur, Frankfurt and Paris (Charles de Gaulle). Taking these factors into account, LeighFisher have provided DIAL with a recommended selection of fifteen airports for which data are available and which broadly meet criterion of comparable airport size as under alongwith details of passenger throughput in 2010.

Airports selected for initial benchmarking sample	
Airport & Airport code	**Passenger numbers (millions) 2010 (calendar year)**
Amsterdam AMS	45.2
Beijing PEK	73.9
Copenhagen CPH	21.5
Delhi DEL	28.5
Hong Kong HKG	50.4
London Gatwick LGW	31.4
London Heathrow LHR	65.7
Melbourne MEL	27.7
Miami MIA	35.7
Munich MUN	34.7
Rome Airports ADR	40.9
San Francisco SFO	39.3
Singapore Changi SIN	42.0
Sydney SYD	36.0
Tokyo Narita TYO	33.8
Washington Dulles IAD	23.6

311. Leigh Fisher stated that for all of these airports it has been possible to produce benchmarks of total operating costs, staff costs and total non-staff

operating costs. In addition, data was available to produce benchmarks of maintenance costs for the following ten airports (as well as IGIA) Amsterdam, Beijing , Copenhagen, Hong Kong, London Gatwick, London Heathrow, Melbourne, San Francisco, Singapore Changi and Sydney. The results of the benchmarking study have been expressed in three ways:

a. on a per passenger basis;
b. on a per ATM basis;
c. in relation to airport capacity;

and in the following currencies (Units) for each of the three options above:

a. Indian Rupees;
b. US Dollars;
c. SDRs

312. Leigh Fisher stated that, in the particular case of Delhi, there are exceptional circumstances relating to the operational characteristics of the airport which necessitated a tailored approach to the data used for benchmarking. The data used for most of the sample of airports was for calendar year 2010 or financial year 2010/11 in the case of those airports whose financial year does not end on 31st December. Delhi's financial year 2010/11 consisted of three months before the new Terminal 3 came into operation and nine months from the start of operations in the new terminal. The airport's operating cost base changed very significantly with the opening of the new terminal, and DIAL indicated that it wished the benchmarking to reflect a full year of operations in it.

313. The approach chosen by Leigh Fisher is under:

a) Forecast financial data for 2011/12, reflecting a full year of operation in the new terminal, were used;
b) These were deflated back to 2010/11 values so as to correspond to data for the other airports;
c) Traffic data for 2010/11 were used, again to correspond with the data for the rest of the sample, amounting to 29,944,064 total passengers and 275,877 ATMs[1] (non-commercial ATMs have not been included in the analysis).

314. In line with the approach taken in DIAL's concession agreement the deflation factor used was submitted to be based on the Consumer Price

[1] 2010-11 AAI Statistics – Total Pax 29942888; Total ATM 255549

Index of Industrial Workers. In the absence of an official forecast of inflation between 2010/11 and 2011/12, Leigh Fisher have taken the compound average rate of inflation for the period April to June 2011, which amounts to 8.91%, and deflated the 2011/12 financial figures by that amount.

RESULTS OF THE ANALYSIS – PER PASSENGER BASIS

315. In a small number of cases, airports rank in different positions depending on the currency used as a denominator. However, Leigh Fisher states that DIAL's position has not been affected by the currency used. As per Leigh Fisher's analysis, Delhi ranks 13th out of 16 airports in terms of total costs per passenger, demonstrating a highly efficient position in terms of operating costs and that DIAL's total costs per passenger are around 42% of the average for the sample of airports. While the majority of the airports with higher cost bases are European and, therefore, subject to operations with relatively high levels of staff remuneration, Leigh Fisher states that Delhi is also competitive in relation to Singapore, Hong Kong and Beijing, where labour rates are closer to those in India. In terms of staff costs and non-staff costs per passenger Delhi ranks 13th and 12th, respectively. As per the analysis, Delhi's staff costs are only 22.9% of the average for the sample. Non-staff costs generally account for around two-thirds of operating costs although in Delhi's case the relationship is around 75%/25%, emphasizing Delhi's very low levels of staff costs. For maintenance costs per passenger, a smaller sample size of eleven airports including Delhi has been used, in which Delhi ranked in 8th position and its maintenance costs equate to 54% of the average for the sample.

316. While Leigh Fisher have doubted as to whether the figures reported for maintenance by each airport are necessarily made on similar cost allocation bases, they have stated that the percentage which maintenance costs represents as a proportion of total non-staff costs varies between around 16% and 58%. However, maintenance costs as a proportion of total non-staff costs falls within a fairly narrow range of 16.0% - 21.6% for eight of the eleven airports, which suggests a reasonably common approach in those cases.

RESULTS OF THE ANALYSIS – PER ATM BASIS	
Airports	**ATM**
Amsterdam AMS	402,375
Beijing PEK	517,584
Copenhagen CPH	245,640
Delhi DEL	268,383
Hong Kong HKG	316,000
London Gatwick LGW	235,738
London Heathrow LHR	449,220
Melbourne MEL	195,900
Miami MIA	376,208
Munich MUN	396,805
Rome Airports ADR	383,309
San Francisco SFO	383,457
Singapore Changi SIN	285,848
Sydney SYD	327,000
Tokyo Narita TYO	187,051
Washington Dulles IAD	336,000

317. The report states that the figures listed above relate to the financial year for each airport, so they may not coincide with published calendar year figures. In the case of Delhi, the figures are for the financial year 2010/11, with non-revenue (military) aircraft movements deducted and that similar adjustments for non revenue movements have been made for the other airports, if necessary.

318. If the number of ATMs in relation to passengers is high (as at Washington Dulles) then the airport's per ATM ranking will tend to be lower than it's per passenger ranking. Conversely, if the number of ATMs in relation to passengers is low (as at Tokyo Narita) then costs per ATM will tend to go up. Leigh Fisher have stated that Delhi's per ATM rankings are the same, or very similar, to its per passenger rankings and the comments made on the PER PASSENGER BASIS analysis, therefore, apply equally in the case of the per ATM metrics.

RESULTS OF THE ANALYSIS – AIRPORT CAPACITY BASIS

319. Leigh Fisher have stated that DIAL had also requested that the benchmarking analysis be carried out in relation to the airports' passenger capacity. In this context Leigh Fisher have also set out some observations on issues relating to the definition of airport capacities.

320. At any given time, airport capacity is a function of runway capacity, passenger terminal capacity and aircraft parking stand capacity. However, the first two of these variables may change over time, not necessarily as a result of either capital expenditure or operating expenditure being contributed by the airport. In the case of runway capacity, this may vary as a result of changes to air traffic control procedures, as well as because of incremental changes on the ground, such as the development of additional taxiways and the introduction of runway rapid entries/exits. As an example, it would be possible to raise the current hourly runway capacity at London, Heathrow from its current level of 86 to around 99 ATMs per hour, with minimal additional expenditure, if the government was prepared to approve mixed mode rather than segregated mode operations. Similarly, San Francisco International Airport has been in discussion with the FAA regarding the introduction of various improved operating procedures which are expected to raise hourly runway movements capacity with a corresponding increase in passenger capacity from 50 million passengers to 57 million passengers p.a. Thus the cost/capacity relationship may not be fixed at an airport over time. The capacity of passenger terminals is generally defined at the time of their construction. However, again over time, the capacity of the overall terminal structure may change as a result of minor capital investments which have little or no impact on operating expenditure. In addition, Leigh Fisher have also stated that it is not uncommon for the passenger throughput of a terminal to exceed its stated capacity on a routine basis. As an example, Aeroporti di Roma expects that, for the period 2010 – 2015, passenger throughput at Rome Fiumicino will exceed capacity by between 2% and 11%. In such cases, delays in capital projects combined with growth in passenger numbers mean that the airport is obliged to accept that passenger service standards will be adversely affected by crowding in the terminal(s). In view of these caveats, therefore, it must be accepted that designer declared capacities should only be regarded as approximations to the maximum potential capacity of the airport.

Assumed airport capacities (Millions of Passengers p.a.)	
Airports	**Capacity**

Assumed airport capacities (Millions of Passengers p.a.)	
Airports	**Capacity**
Amsterdam AMS	60.0
Beijing PEK	80.0
Copenhagen CPH	26.0
Delhi DEL	51.8
Hong Kong HKG	55.0
London Gatwick LGW	41.0
London Heathrow LHR	90.0
Melbourne MEL	35.0
Miami MIA	45.0
Munich MUN	50.0
Rome Airports ADR	45.0
San Francisco SFO	50.0
Singapore Changi SIN	73.0
Sydney SYD	43.0
Tokyo Narita TYO	40.0
Washington Dulles IAD	35.0

321. The figures shown above in relation to Delhi takes account of the fact that currently part of Terminal 1 and all of Terminal 2 are decommissioned. Thus, capacity for a little over 12 million passengers[2] is not currently operational.

322. **The analysis in this section expresses costs in relation to the airports'** passenger capacity. Therefore, by definition, per passenger capacity costs will be lower than per passenger costs unless the airport is already operating at close to its full capacity. When comparing the results for Total Costs per Passenger with those for Total Costs per Passenger Capacity it is noticeable that the ranking positions of the top six airports (Narita, Munich, Heathrow, Amsterdam, Gatwick and Copenhagen) remain unchanged because these airports have significantly higher costs per passenger than the average for the sample, and also because in the case of Narita and Copenhagen, these airports are operating at a relatively high percentage of assumed capacity. In the case of the two airports with the lowest percentages of capacity in use, Singapore and Delhi, the ranking positions fall, from 8th to 12th and from 13th to 14th respectively. Similar results apply in the case of Staff costs per Passenger and per Passenger Capacity.

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[2] It is observed that the LeighFisher report mentions that a capacity of around 10 mppa at Delhi is currently mothballed in para 1.310 as against a capacity of 12 million in para 1.321

Leigh Fisher states that here the difference between the results for the top eleven and bottom five airports becomes more pronounced. Delhi's position falls from 13th to 16th, although Singapore's remains unchanged. For Non-staff costs per Passenger and per Passenger Capacity there are a number of ranking changes, although Narita remains a top-end outlier by a significant margin. Delhi's position falls from 12th out of 16 to 14th. For Maintenance costs per Passenger and per Passenger Capacity Delhi's ranking position remains unchanged at 8th out of the 11 airports, although the differential between Delhi and the next highest ranking airport (London Gatwick) increases.

323. Leigh Fisher, in their conclusion indicate that Delhi's operating costs are very low in relation to those of its peers in the sample, particularly when expressed in terms of terminal capacity and while they feel it is correct to highlight the difficulties inherent in relying on capacity-based metrics, the differences between the per passenger and per passenger capacity metrics demonstrate that Delhi's average total costs per passenger can be expected to fall in relative terms as traffic builds up.

Observations

324. The Authority had in its Order for the Airport Operators (No.13/2010-11 dated 12.01.2011), in response to the stakeholder comment- ***"Under a dual or hybrid till, an airport's incentives to identify improvements in non-aeronautical operating and investment costs often brings down the aeronautical cost base as well",*** had observed that this is an important point but have some implicit assumptions; and that it is assumed that the measures aimed primarily at reducing non-aeronautical costs will have salutary effect on aeronautical costs. The relationship of these two costs could be tenuous and may not have one-to-one correspondence. Secondly, the issue needs to be balanced with other considerations.

325. Further the Authority had also observed that under a dual till, an Airport Operator has incentive to keep non aeronautical costs low. Although the incentives are not entirely in balance and an Airport Operator would have greater incentive to keep low the non-aeronautical costs rather than aeronautical costs. To the extent that the costs are allocations of common

costs, it could help augment the incentives the Airport Operator has for aeronautical costs too. This may particularly be the case for longer term investment planning decisions, where till-based regulation relies on the user consultation process to encourage optimum outcomes.

326. As against the aforestated proposition, however, two other consequences of dual till or hybrid till approaches need to be noticed.

327. The first is dependence on methodologies and exercise of discretion in the allocation of costs and assets between aeronautical and non-aeronautical tills. The Airport Operator would have an incentive to structure its investment and operating decisions to minimise the allocation of costs to non-aeronautical till, which could lead to overall inefficiency that may result in low non-aeronautical allocations of costs.

328. The second is the effect of incentives being out of balance. In making investment, operating and other business decisions, an Airport Operator could be more strongly encouraged to pursue options that bring benefit from non-aeronautical sources. Therefore, an Airport Operator may not necessarily choose options that bring the best overall benefits, while considering aeronautical and non-aeronautical sources together. This could be the cause for inefficiency.

329. The Authority, in its conclusion, stated that "*It is, thus, not clear whether the potential advantage in using a dual till or hybrid till, highlighted in this response, could be more than offset by the distortions caused by unbalanced incentives and allocation methodologies*".

330. Considering that DIAL has carried out a detailed analysis of the allocation of costs between aeronautical and non-aeronautical through M/s Jacobs Consultancy, the Authority could consider the asset allocation proposed by DIAL as reasonable. However, the reviewed allocation proposed on the basis of disallowances indicated in the Authority's Order is not acceptable for the reasons already mentioned in para 122 above.

Observations on Projected number of Manpower

331. DIAL had considered a total manpower number of 1401 in 2010-11, escalated by 5% every alternate year. However, the DIAL's Auditor certified a total manpower number of 1494, as on 31st March 2011. Subsequently,

DIAL made a submission to update the base manpower number to 1494, escalated by 5% every alternate year. Annual manpower numbers projected by DIAL are presented in table below:

Year	Initial Manpower Number Projection	Manpower Number Projection after **Auditor's Certification**
2011	1401	1494
2012	1401	1494
2013	1471	1569
2014	1471	1569
2015	1545	1647
2016	1545	1647
2017	1622	1729
2018	1622	1729
2019	1703	1816
2020	1703	1816

332. Since the updated number of 1494 is certified by the Auditors, the same could be accepted. However, it is to be noted that in its initial submission, DIAL had projected certain manpower numbers in subsequent years which according to DIAL were required. Therefore, subsequent change to the projected manpower number because of change in the base number may not be warranted.

333. DIAL had projected 1471 as the manpower requirement till 2013-14. In view of the fact that the existing manpower as certified by the Auditor is more than 1471, the Authority could consider the DIAL base manpower number of 1494 as constant till 2014. **In the alternate, since DIAL's initial** manpower projections are lower than the actual certified by the Auditors, the Authority could consider adopting the projections initially made by DIAL.

334. The Authority considers that the latter view is in consonance with the Principle of Economic Efficiency included in the SSA which provides that ***"….in respect to regulation of Aeronautical Services the approach to pricing regulation should encourage economic efficiency and only allow efficient costs to be recovered through pricing….."***.

335. In view of the above, the Authority proposes to take into consideration the initial manpower projections made by DIAL for the present exercise.

Interest on DF Loan

336. DIAL submitted, in a letter dated 25th November 2011, that as per Order No. 28/2011-12, the Authority had taken a view that the past interest on DF will be considered in the tariff determination. DIAL also submitted an Auditor's certificate dated 18th November 2011, certifying an amount of Rs. 40.55 crores as Interest on DF Loans till 31st October 2011. DIAL further submitted a certificate for interest on DF Loan for the month of November 2011 (an amount of Rs. 7.44 crores).

337. In this regard it is to be observed that the Central Government had approved the levy of DF by DIAL w.e.f. 01.03.2009, purely on an adhoc basis, to bridge a funding gap of Rs.1827 crores (NPV as on 01.03.2009). DIAL had securitized this to raise a loan of equivalent amount (i.e., Rs.1827 crores).

338. This loan was serviced by DIAL from the DF receipts. Pursuant to the judgment and Order of the Hon'ble Supreme Court dated 26.04.2011, DIAL were required to stop the levy of DF. However, they continued to do so till 01.06.2011 when the Hon'ble Delhi High Court passed an injunction against such recovery. Subsequently, DIAL claims to have been servicing the loan through other resources till the re-imposition of the levy w.e.f 01.12.2011 as per the Authority's Order No.28/2011-12 dated 14.11.2011. While passing the said Order the Authority had taken in to account the DF collection of Rs.1484.08 crores (w.e.f 01.03.2009 to 01.06.2011) on total basis without providing for interest paid therefrom. In this background, DIAL were requested to provide Auditor certified amounts of interest paid for relevant periods, which are as under:

Period	Interest paid (Rs. In crores)
01.03.2009 - 30.11.2011	350.50
01.04.2009 - 30.11.2011	349.69
27.04.2011 - 30.11.2011	56.90
01.06.2011 – 30.11.2011	47.99

339. It is observed that the assets funded out through DF have not been included in the RAB. Further, the debt raised by DIAL on securitization of DF has not been considered as an element in the means of finance.

Therefore, the cost of this debt is not being allowed to be recovered through WACC. It is in this context that the Authority had decided to consider expensing out the interest thereon at the time of tariff determination.

340. The impact of expensing out the interest on DF loan under the four different scenarios is as under:

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
Considering interest on DF for the period	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
01.03.2009 to 30.11.2011	-774.30%	-137.94%	-828.75%	-143.43%
01.04.2009 to 30.11.2011	-774.30%	-137.94%	-828.61%	-143.41%
27.04.2011 to 30.11.2011	-774.30%	-137.94%	-781.53%	-138.68%
01.06.2011 to 30.11.2011	-774.30%	-137.94%	-780.40%	-138.56%

341. After careful consideration, the Authority is tentatively of the view that expensing out of the interest for the entire period of 01.03.2009 to 30.11.2011 is the most appropriate option as adopting any other option would require the Authority to reconsider the net collections during the periods upto 26.04.2011 to 01.06.2011, which stand concluded by the **judgements of the Hon'ble Supreme Court and Hon'ble Delhi High Court.** The Authority has also noticed that technically the one month period of **March'2009 is outside the present regulatory period. It proposes to treat** the interest paid for this period, i.e., March 2009 as a carrying cost.

342. DIAL have also requested for defraying of collection charges paid by them to the airlines in respect of DF through OPEX. However, the Authority is of the view that this request of DIAL does not appear to be acceptable for the following reasons:

(i) As per the provisions of Section 13 (1) (b) of the Act read with Section 22A of the AAI Act, 1994, the Authority's function in respect of DF is confined to determination of the rate/amount thereof;

(ii) The issue of collection, deposit etc., of DF are not within the purview of the Authority.

343. **US Dollar Exchange Rate** - It is observed that DIAL have considered an exchange rate of USD Rs.45.00 for dollar denominated revenue in its tariff application and had revised the same to an exchange rate of Rs.45.26 based on last 6 months average RBI reference rate in their submission dated 21.11.2011. The Authority to have reference to RBI reference rate for latest 6 months, available till 25th November, 2011 which works out to an exchange rate of Rs.46.824. The sensitivity on the same is as under:

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
USD Exchange Rate	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
	-774.30%	-137.94%	-772.52%	-137.76%

In view of recent trend of sharp movements in the exchange rate, the Authority would review this aspect further and would use the latest rates (trends) as may be available to it at the stage of final determination.

344. **Efficiency Factor -** In any Price Cap based regulation, improvement in efficiency is one of the most important elements. In the present case, however, DIAL have submitted that in terms of the principle of efficiency as laid down in Schedule 1 of SSA, only efficient costs are to be considered in the tariff building block while determining the target. Therefore, the target revenue itself incorporates the efficiency factor and no additional improvement factor should be imposed on DIAL. Evidently this submission of DIAL is premised upon an assumption that only the efficient costs have been proposed for inclusion.

345. As per the Benchmarking study conducted by Leighfisher, which has been discussed in detail in preceding paras, DIAL's operating costs are amongst the lowest amongst the airports of similar size. Further, some of the operating costs, specifically the utility costs, are not in the control of DIAL

in as much as the prices of these services are decided by the independent regulators/ other entities. Though this does not take away from the fact that DIAL can exercise control over the consumption, in view of the Benchmarking study the arguments on consumption may not have greater salience.

346. Another important consideration in respect of efficiency is manpower cost. As discussed in para 331 above, DIAL had initially considered a total manpower number of 1401 in 2010-11, which was proposed to be escalated by 5% every alternate year. However, DIAL's auditor subsequently certified an actual number of 1494 (as on 31.03.2011), which was used by DIAL as the base figure for 5% escalation in subsequent submissions. In para 333 above, it has been brought out that the Authority proposes to adopt the initial projections made by DIAL in accordance with the principle of economic efficiency, consequently resulting in consideration of about 6% lower manpower costs as compared to the actuals.

347. Further, the Authority in its Order No.13/2010-11 date 12.01.2011 had stated that it will follow a bottom-up approach for assessment of operation and maintenance expenditure, which will include a review of the operation and maintenance expenditure forecast submitted by the Airport Operator. The Authority found that a review based on the following principles would be appropriate:

(i) Assessment of baseline operation and maintenance expenditure based on review of actual expenditure indicated in last audited accounts, and prudency check, inter–alia, with respect to underlying factors impacting variance over the preceding year(s) including treatment for one-time costs or atypical costs;

(ii) Assessment of efficiency improvement with respect to such costs based on review of factors such as trends in operating costs, productivity improvements, cost drivers as may be identified, and other factors as may be considered appropriate; and

(iii) Assessment of other mandated operating costs or statutory operating costs, where (i) other mandated operating costs are costs incurred in compliance to directions received from other regulatory agencies

including Director General Civil Aviation; and (ii) statutory operating costs are costs incurred on account of fees, levies, taxes or other charges, directly imposed on and paid for by the Service Provider.

348. The Authority had considered the submissions made by the stakeholders, **and decided to specify that only "other mandated operating costs" and "statutory operating costs" should be considered as uncontrollable costs.** Other mandated operating costs shall cover costs incurred in compliance to directions received from other regulatory agencies including Director General Civil Aviation. Statutory operating costs shall cover costs incurred on account of statutory fees, levies, taxes or other charges, directly imposed on and paid for by the Airport Operator. For the avoidance of doubts, it was clarified that the Authority would not consider: expenses that are required for meeting the required subjective and objective quality standards, exchange risks and cost to overcome under performance by allied parties, as uncontrollable costs. In effect, these costs would be **considered as controllable in the Authority's assessment of operating costs.** As part of the Airport Operators Multi-year Tariff Framework Application, the Authority expected Airport Operators to detail any uncontrollable cost consistent with this position, with supporting evidence and forecast these costs as part of the building blocks approach. As part of the Compliance Statement the Airport Operator would be required to present details of its audited uncontrollable cost compared to the forecast at the time of the tariff review. The Authority would reserve the right to undertake a detailed review of the uncontrollable costs and require the Airport Operator to provide detailed justification. The Authority would then adjust tariffs to reflect any adjustments in uncontrollable costs. The O&M expenditure related to mandated security expenditure as laid down by the Government/ Bureau of Civil Aviation Security (BCAS) shall be considered in determination of the PSF charge for which the draft guidelines for determination of Passenger Service Fee (PSF) have been issued separately. The Authority also did not support the position of the Airport Operators that allowances should be included for bad debts in operating costs and is of the opinion that any allowance provided for working capital should be net of allocations for bad debts.

349. The Authority has considered the issue of operating expenses and their projections in detail. It is conscious of the fact that the issue of efficient operating and maintenance costs only is salient in a price cap determination. Further, the allocation of these costs into aeronautical and non-aeronautical categories is specially important under a shared till regulation as in the case of IGI Airport. In this light, the Authority would have ideally liked to have commissioned an independent study to help it assess the aspects of "efficient operating and maintenance costs" and their allocation between aeronautical and non-aeronautical heads. However, the Authority is conscious that in the current determination, only 2 years of the regulatory period are left. In this light, the Authority, presently, proposes to accept the forecasts made by DIAL, subject to the modification indicated above.

350. However, the Authority may commission an independent study to benchmark the operating costs of IGI Airport New Delhi. If the opex (actual and forecast) proposed by DIAL are at variance with the independent assessment, the Authority will consider appropriately truing up the figures.

351. The summary of total operating expenses considered by the Authority, presently, for the tariff determination is as under:

Operating Expense (Related to Aeronautical Services after considering the impact of inflation)					(Rs in crores)
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Staff Cost	87.87	116.82	131.25	154.84	173.96
Administrative & General Expenses	60.04	101.96	136.27	153.10	172.01
Electricity & Water Charges	31.21	60.82	133.11	150.79	155.32
Operating Expenses	128.03	169.17	265.62	279.88	311.96
Airport Operator Fee	25.16	31.44	36.00	50.28	102.75
Property Tax	0.00	0.00	52.52	21.89	21.89
VRS Aero	70.03	28.64	42.18	16.97	16.69
Interest on DF Loan	164.77	122.19	63.55	0.00	0.00
Total	**567.11**	**631.04**	**860.50**	**827.74**	**954.57**

f. **Taxation**

352. DIAL submitted that SSA requires that corporate tax pertaining to aeronautical earnings be separately calculated and added as a building block to compute the final target revenue. DIAL computed the income tax, on aeronautical income, on the prevailing Income Tax laws and rules with the following assumptions:

    (i) Treating the Aeronautical Segment as a standalone entity with its own tax computations.(***which may not necessarily reflect the overall tax computation of DIAL as a whole);***

    (ii) Items excluded from the calculations of the regulatory building blocks have been excluded from the regulatory tax computation, which include:

    - Non-aeronautical operating costs or depreciation;
    - Revenue share costs as they are mandated to be excluded as per concession documents.
    - Tax Computation has also considered MAT provisions.

353. The matter has been further analysed in the light of the proposals made herein and the actual /forecast tax liability of DIAL in respect of Aeronautical Income, based on DIAL's regulatory accounts, has been computed as under:

Financial Year (Corresponding to the Tariff Year)	DIAL's forecast/Actual (Rs in crores)	Forecast based on the Authority's assessment (Rs in crores)
2009-10	-	-
2010-11	-	-
2011-12	-	-
2012-13	645	205*
2013-14	686	305*

* On account of carry forward losses for the past years it has been estimated that DIAL will be required to pay only the Minimum Alternate Tax for FY 2012-13 and FY 013-14

g. Sharing of non-aeronautical revenue

DIAL's Submission

354. With respect to cross subsidy from Non-Aeronautical Revenue, DIAL have stated that 30% of total non-aeronautical "income" will offset towards setting tariffs for aeronautical services. They stated that "*As a corollary any non-aeronautical income accruing from investment disallowed as part of Project Cost shall not be used for cross subsidization*."

355. DIAL further submitted that:

"The SSA states that only the gross revenue from the 'Revenue Share Assets' will be considered while determining the total subsidy contribution.

The Revenue Share Assets under SSA are:

- *Non Aeronautical Assets; and*
- *Assets required for provision of aeronautical related services arising at the airport and not considered in revenue from Non Aeronautical Assets.*

Non Aeronautical Assets have not been defined in SSA. Para 1.1 of the SSA - last paragraph has laid down that:

'Other Capitalised terms used herein (and not defined herein) but defined under the OMDA shall have the same meaning ascribed to the term under OMDA.'

OMDA lays down the following

'Non Aeronautical Assets' shall mean:

"1. all assets required or necessary for the performance of Non-Aeronautical Services at the Airport as listed in Part I of Schedule 6 and any other services mutually agreed to be added to the Schedule 6 hereof as located at the Airport (irrespective of whether they are owned by the JVC or any third Entity); and

2. all assets required or necessary for the performance of Non-Aeronautical Services at the Airport as listed in Part II of Schedule 6 hereof as located at the Airport (irrespective of whether they are owned by the JVC or any third

Entity), to the extent such assets (a) are located within or form part of any terminal building; (b) are conjoined to any other Aeronautical Assets, asset included in paragraph (i) above and such assets are incapable of independent access and independent existence; or (c) are predominantly servicing/ catering any terminal complex/cargo complex and shall specifically include all additional land (other than the Demised Premises), property and structures thereon acquired or leased during the Term, in relation to such Non-Aeronautical Assets.

Therefore cross subsidy of 30% shall be computed on gross revenue from Part I of Schedule 6 of OMDA as well as that from Part II of Schedule 6 to the extent these later assets:

a. *form part of terminal building; or*

b. *are conjoined to an aeronautical asset and such assets are incapable of independent access and independent existence; or*

c. *Predominantly servicing/catering any Terminal complex/ Cargo complex."*

<u>*Non Aeronautical Revenue*</u>

356. DIAL submitted the forecasts of non-aeronautical revenues, together with explanations to support them. An overview of non-aeronautical revenue forecast made by DIAL (submission dated 20.06.2011) is as under:

	Actuals		**Forecast**		
Non Aero Revenues (Rs in crores)	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Advertisement	28.0	42.6	57.6	66.5	75.7
Duty-free	120.0	81.1	118.1	135.1	152.9
Duty-paid	9.5	28.0	39.7	46.1	52.8
Food & beverage and Lounges	31.2	41.2	53.1	60.5	67.2
Car parking (Incl. Entry ticket & Left Luggage Fee)	26.1	10.1	5.6	6.5	11.0
Radio taxi	3.1	7.0	9.0	10.4	11.9
Transit Hotel	Nil	Nil	1.8	1.9	2.1
Forex, ATM and others	*	36.7	49.4	55.3	61.4
Airport Service Charge (ASC)	**	**	11.4	12.3	13.4

	Actuals		Forecast		
Non Aero Revenues (Rs in crores)	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Telecom	*	6.58	7.5	8.7	9.9
Miscellaneous	23.7	4.9	5.0	5.0	5.0
Total	**241.6**	**258.0**	**358.3**	**408.3**	**463.3**

**earlier included in miscellaneous income ;*

*** earlier included in concession incomes*

357. DIAL submitted that it expected an increase of approx. 38.76% in the total non-aeronautical revenues for 2011-12 vis-à-vis 2010-11, which is on account of T3 attaining first full year of operation in 2011-12 and expected to reach a stabilization stage thereafter.

Cute Charges on domestic flights

358. DIAL submitted to the Authority that in their rate card, any charge by way of cute counter charges for domestic airlines had not been contemplated. DIAL further proposed to introduce a cute counter charge @ Rs. 500 per departing domestic flight over and above the Rs. 1500 per international flight already being charged.

Revenue from area disallowed as per DF Order

359. In their letters dated 21.11.2011 and 25.11.2011, DIAL submitted that the Authority had disallowed an area admeasuring 8652 sq.mts and corresponding cost of Rs.107 crores from the total project cost while determining DF for the IGI airport vide Order No.28 dated 08.11.2011. DIAL have requested that non-aeronautical revenue arising from this area may not be used for cross subsidy purpose. As per the Auditor's certificated dated 22.11.2011, the details of revenue, requested to be not considered are as under:

Particulars	Area in Sqmts	Period	Amount (Rs. in Crores)
Food and Beverages	2069	July'2010 to March'2011	2.74
	2069	April'2011 to September'2011	2.39
Lounges	590	July'2010 to March'2011	1.26
	2029	April'2011 to September'2011	4.34

360. However, the request made by DIAL to exclude the non-aeronautical revenue arising from the area admeasuring 8652 sq.mts (disallowed as per DF Order) for cross subsidy purpose is not acceptable. The Authority has examined the matter in detail in its DF Order in view of the conflicting arguments and had observed that there has been a large increase in the gross floor area of T3 after the MDP stage -the increase is of the order of about 84000 sq. mt. The technical auditors had opined that the subject area of 8652 sq. mt. need not have been built and that the subject area is being used for food court and retail which are used directly by the airport users. The Authority also noted that none of the airport users have supported the inclusion of this area. In fact, it had been pointed out that sufficient food court and retail area are already available at departure and arrival levels. Further, a very limited number of passengers use CIP and Hotel level and that these passengers would be able to use the F&B facilities in the CIP Lounges and the Hotel. Therefore, on balance, the Authority felt that the area admeasuring 8652 sq. mt. may not be included in the GFA of T3 and consequently, the admissible project cost may be reduced by an amount of Rs. 107.15 crores on proportionate basis as recommended by the technical auditors. However, the fact is that the additional space has been built and is generating the non-aeronautical revenue. The SSA nor the OMDA does not provide for any exclusions from Non Aeronautical Revenue for cross subsidy purpose wherever such Non Aeronautical Revenue is arising from such area or space the project cost of which has been excluded by the Regulator.

361. In view of the same the Authority has considered the revenue from the 8652 sqmts of area, cost of which was excluded in the DF Order for the purpose of cross subsidy.

<u>Non-Aeronautical Revenues Forecast</u>

362. DIAL forecasted the total turnover of: (1) Car parking, Entry ticket and Left Luggage facility revenue; (2) Advertisement Revenues; (3) Duty Free and Duty Paid Revenues; (4) F&B and Lounge revenue; (5) Radio Taxi; (6) Foreign exchange concessionaires and (7) Telecom, for FY2011-12, based

on an annualized turnover of 4 months (Dec, 2010 to Mar, 2011) and subsequently considered an escalation in revenues based on traffic growth and a 5% p.a. increase on account of higher penetration. DIAL projected these revenues on the basis that this was the true reflection of future revenues for such services, as during this period all the 3 terminals including T3 were operational.

363. Revenue head-wise projection details as submitted by DIAL are presented below:

a) **Car parking, Entry Ticket and Left Luggage Facility revenues** - DIAL submitted that the scope of the new concession included Car parking, entry ticket and left luggage facility and included the new multi-level car parking (MLCP) provided at Terminal 3, Surface Car Parking at Terminal 1 and Cargo Terminal. Further, they also stated that under the new concession, the concessionaire was operating and maintaining the MLCP and has also funded a huge capex for the car park. Considering that in a typical multi-level car park model the margin left with the operator is minimal because of the huge capex involved, the revenue share payable under the new concession is on gross receipts as against fixed monthly license fee paid under the old concession. The revenue share as per the concession terms increases progressively from 10% of gross receipts in the initial three years to 15% for next two years. DIAL submitted that the fall in the revenues from car park in 2010-11 is mainly due to the new concession of the MLCP where the concessionaire incurred the entire capex for the MLCP. Further, DIAL have stated that in the year 2013-14 there will be a 71% increase compared to year 2012-13 because of increase in revenue share from 10% to 15%.

b) **Advertisement revenues –** DIAL submitted that for advertisement, the revenues to DIAL depended upon the revenue share percentage and the turnover of advertisement concessionaire. The contract was given out under a competitive bidding process at revenue share percentage of 55% of the gross revenue of concessionaire. DIAL further submitted that the advertisement revenue figures show a substantial jump of 52% in FY 2010-11 as compared to the previous year mainly on account of opening of

terminal 3. Further, a growth of 34.6% has been forecasted for financial year 2011-12 on account of terminal 3 being operational for the full year.

c) **Duty-free revenues –** DIAL submitted that the Duty free concession was given on a competitive bidding basis to the highest bidder, based on the revenue share as a percentage of total duty-free revenue. DIAL also submitted that the Contract with duty free provider specified a minimum amount of guaranteed revenue to DIAL (minimum monthly guarantee [MMG]). The MMG for the Duty Free concessionaire was expressed as a constant amount per passenger in US dollars.

DIAL showed a decrease of 32.5% in revenue in 2010-11 as compared to previous year and stated that this was primarily due to the fact that during the first 4 months of 2010-11, the earlier concessionaire's contract was on a revenue share of 15% on gross sales without any minimum guarantee or Fixed Monthly License Fee (FMLF) compared to 32% being paid now by the new concessionaire.

d) **Duty Paid (Retail) –** DIAL stated that the revenue share payable by the duty paid concessionaires was expressed as a percentage of total retail revenue and that the contracts with providers also specified a minimum amount of guaranteed revenue (minimum monthly guarantee of MMG). DIAL showed an increase of 193% in revenue in 2010-11 compared to FY 2009-10 and also increase of 42% in 2011-12.

e) **Food & Beverage and Lounges** - In case of food & beverage concessionaires and revenues from the lounges, the revenue shares payable to DIAL are expressed as a percentage of total food & beverage revenue/ lounge revenue. DIAL also stated that the contracts with the F&B concessionaires also specified a MMG.

f) **Transit Hotel –** DIAL submitted that the facility was provided to the passengers at Terminal 3 and was concessioned out on a revenue share basis which is a fixed percentage of gross revenue as well as an MMG. it has been further submitted that the Transit Hotel is a new venture and had recently begun its operations. It was expected to take some time to attain profitability and generate higher revenues. DIAL, therefore, forecasted only the MMG to be payable by the concessionaire for the forecast period.

g) **Radio taxi –** DIAL submitted that the radio taxi service providers pay different fees to DIAL for the use of facilities and submitted an average revenue share to arrive at the revenue projection.

h) **Foreign exchange and ATM revenue –** DIAL stated that there was a monthly rental per location per month for the ATM counters which was a fixed monthly amount payable to DIAL. In case of foreign exchange, DIAL submitted that there was a cap on the commission chargeable by the concessionaires and the concessionaire shared part of their commission with DIAL, which was expressed as a percentage of their total turnover. The contracts with concessionaries also specified a minimum amount of guaranteed revenue (minimum monthly guarantee of MMG). In 2010-11, foreign exchange revenue included ATM revenues and projected revenue for 2011-12 shows one time exponential increase as compared to previous year actual revenues because of the opening of T3.

i) **Airport Service Charges (ASC) –** DIAL submitted that the concessionaires paid fixed monthly service charges for common services which are escalated by CPI on the first day of January every year. DIAL further stated that the revenue of 2009-10 and 2010-11 of various concessionaires included ASC charges under respective heads. However, while forecasting for the year 2011-12 onwards DIAL treated this as a separate revenue source. Based on current estimates, DIAL assumed that a total Rs. 11 Crores would be generated from ASC for the year 2011-12. DIAL assumed an annual CPI based growth of 8.4% for future years.

j) **Telecom –** Telecom Revenues at the airport for the year 2011-12 were forecasted based on 2010-11 revenue and escalated by passenger growth and further increased by 5% pa.

Observations on Non-Aeronautical Revenues

364. DIAL were requested to provide certification from the Auditor for historical non-aeronautical revenues.

365. The Auditor's certifications provided by DIAL for head-wise historical non-aeronautical revenues were reviewed and certain differences identified in the head-wise breakup as well as year-wise total revenues. Consequently,

the historical year-wise and head-wise asset revenues were updated in the financial model submitted by DIAL, based on the Auditor's certificate.

366. The year-wise and head-wise non-aeronautical revenue figures for the years 2009-10 and 2010-11 certified by the DIAL's Auditor along with the projection for the rest of the control period are presented below:

Non Aero Revenues (Rs in crores)	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Advertisement	27.99	42.55	47.38	54.64	62.27
Duty-free	120.03	81.08	118.10	135.09	152.88
Duty-paid/ Retail	9.55	27.99	39.50	45.89	52.51
Food & beverage and Lounges	31.19	41.16	54.38	62.02	69.01
Car parking (Incl. Entry ticket & Left Luggage Fee)	26.07	10.09	5.63	6.49	11.09
Radio taxi	3.06	7.04	7.23	8.33	9.50
Transit Hotel	-	-	1.80	1.94	2.10
Forex, ATM and others	-	29.94	48.90	54.68	60.74
Airport Service Charge (ASC)	-	-	11.38	12.34	13.37
Telecom	18.96	11.06	12.66	14.60	16.64
Land, Space and Hangar	132.14	123.27	139.82	148.15	144.49
Flight Kitchen Royalty	13.00	28.87	31.48	34.57	37.52
CUTE Counter Charges	4.96	5.07	5.33	5.76	6.16
Into Plane Service	-	0.80	1.13	1.29	1.46
Other Commercial Income	4.72	7.13	7.13	7.13	7.13

367. It is to be noted that while DIAL estimated revenues from above concessionaires, most of them were being carried out by Joint Venture Companies (JVC) set up with equity participation of DIAL. The details of JVCs so setup by DIAL for carrying out various activities/services are as under:

Activity/Services	**Joint Venture Company (JVC)**
Advertising	TIM Delhi Airport Advertisement Pvt. Ltd

Activity/Services	**Joint Venture Company (JVC)**
Car Park	Delhi Airport Parking Services Pvt. Ltd.
I.T	Wipro Airport IT Services Ltd.
F&B	Travel Food Services (Delhi T3) Pvt. Ltd.
F&B	Devyani Food Street Pvt. Ltd.
F&B	Delhi Select Service Hospitality Pvt. Ltd.
Duty Free	Delhi Duty Free Services Pvt. Ltd.
Fuel Farm	Delhi Aviation Fuel Facility Pvt. Ltd.
Cargo	Celebi Delhi Cargo Terminal Management India Pvt. Ltd.
Cargo	Delhi Cargo Service Pvt. Ltd.
BME	Delhi Aviation Services Private Ltd.

368. While considering this matter, prima-facie, several observations were made and DIAL were requested to make a presentation in the matter.

369. In the presentation, DIAL, inter-alia, brought out that :

(i) Under clause 2.1.2 (iv) and 8.5.7 of OMDA, DIAL is permitted to concession out any activity.

(ii) Clause 2.3 of the OMDA also provides DIAL to invest in JV incorporated / created for undertaking Aero Services, Non-Aero Services and Essential Services.

(iii) It is a global practice by the airport operators to concession out non-core activities such as F&B, Duty Free, Car Park, Advertisement, Cargo and Fuel Farm etc. to specialized players with a view to imbibe global best practices, higher revenues, operating efficiencies and improve overall passenger experience.

(iv) More and more airport operators are opting for JV model for ensure better control on the performance and business continuity.

(v) In their view, there is better business logic in general in undertaking these activities in a concession under Joint Ventures with Airport Operator as compared to only concession model.

370. It is observed that :

(i) As per Clause 8.5.7 (i) (a) of OMDA "*Any activity may be sub contracted by the JVC, provided always that notwithstanding the sub-contract, the JVC retains overall management, responsibility, obligation and liability in relation to the subcontracted Airport*

Service. Any such subcontracting shall not relieve the JVC from any of its obligations in respect of the provision of such Airport Services under this Agreement…………"

(ii) Clause 8.5.7(ii) (a) of OMDA provides that "*Notwithstanding anything contained in Article 8.5.7 (i) above, under no circumstances shall the JVC sub-contract the overall operation and management of the Airport and the JVC shall at all times exercise and be responsible for overall management control and supervision of the Airport through its senior management staff, irrespective of any subcontracting of ctivities and/ or services ……………."*

371. A combined reading of these provisions makes it clear that DIAL retains overall management and responsibility in respect of any activity subcontracted by it and has to discharge all obligations and liabilities in respect thereof. Thus, one view could be that it may not be possible to treat the subcontractors of DIAL distinct from DIAL itself in so far as discharge of obligations, liabilities etc. under OMDA read with SSA are concerned. According to this view it is possible to argue that gross revenue generated in the hands of JVs of DIAL is the gross revenue generated by DIAL itself. Further, the Authority also notes that one of the submissions by an Airport Operator before the Appellate Tribunal has been to the effect that concessionaires are only agents of the airport operator. However, according to the OMDA the cost associated with generating said Non Aeronautical revenue is not a pass through. Therefore, according to this construction, revenue in the hands of the agent would be ascribed to revenue in the hands of DIAL. The Authority has contested this argument. Hence the Authority proposes to consider the non aeronautical revenues in respect of DIAL as the non aeronautical revenues that DIAL has actually received from the JVs. However, if the argument that gross revenue of agent is the gross revenue of the airport operator is held in the final outcome of the appellate proceedings, then the Authority proposes to consider the same appropriately.

372. Irrespective of the position and possible arguments stated in para 371 above, it is to be observed that :

(i) Most of the activities under consideration herein were earlier also, i.e., before the formation of JVs, subcontracted/ concessioned.

(ii) DIAL have in their presentation stated that JVs have been set up, inter alia, to generate higher revenues.

(iii) It is also DIAL's submission that going forward the revenue from the subject activities be escalated based on traffic growth and a 5% increase p.a. on account of higher penetration.

(iv) Thus is case the JVs have achieved the objective of generating higher revenues for DIAL, the revenues under the subject heads should at least get escalated/ increased in line with the assumptions made by DIAL as indicated at (iii) above.

(v) As indicated earlier, in the current Control Period the new terminal T3 and associated facilities have become operational during 2010-11. As per DIAL, the operations of new facilities could be stabilized only by December, 2010.

(vi) Further, as brought out in the subsequent section on Traffic Forecast, it is proposed to forecast passenger traffic at IGI Airport on the 10 year CAGR basis. Similarly, Cargo traffic at IGI Airport is also proposed to be forecast considering the 10 year CAGR.

373. Keeping in view the observations made in para 372 above, the authority proposes to adopt the following approach to make a comparative analysis:

(a) The non-aeronautical revenues for various revenue heads for 2008-09 to be considered as the base figure for forecasting the non-aeronautical revenues for FY 2009-10 and 2010-11, escalated by the historical passenger/ cargo growth rates plus a certain %age increase due to higher penetration as may be applicable (as proposed by DIAL) for those years;

(b) For 2011-12 to 2013-14, the base value of revenue arrived for 2010-11 to be projected based on the traffic growth plus a certain %age year on year increase due to penetration as per DIAL's estimate.

374. The non aeronautical revenues so projected and those indicated as actual/forecast by DIAL could be compared under the following three scenarios:

Scenario – 1 - Non Aeronautical Revenues: DIAL's basis of projection (Actuals upto 2010-11, base year for future projections 2010-11, further projections as per DIAL's forecast)

	2008-09	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Flight Kitchen Royalty	12.62	13.00	28.87	31.48	34.57	37.52
CUTE Counter Charges	2.70	4.96	5.07	5.33	5.76	6.16
Duty Free	88.11	120.03	81.08	118.10	135.09	152.88
Advertisement	47.61	27.99	42.55	47.38	54.64	62.27
Public Admission Fee	0.00	0.00	0.00	0.00	0.00	0.00
F & B Income and Lounges	23.45	31.19	41.16	54.38	62.02	69.01
Bridge Mounted Equipment	0.00	0.00	1.60	5.49	5.96	6.41
Retail	0.00	9.55	27.99	39.50	45.89	52.51
Foreign Exchange	0.00	0.00	29.94	48.90	54.68	60.74
Telecom	14.76	18.96	11.06	12.66	14.60	16.64
Land, Space and Hangar	56.35	132.14	123.27	139.82	148.15	144.49
Airport Service Charges		0.00	0.00	11.38	12.34	13.37
Radio Taxi	2.94	3.06	7.04	7.23	8.33	9.50
Car Park	23.06	26.07	10.09	5.63	6.49	11.09
Transit Hotel	0.00	0.00	0.00	1.80	1.94	2.10
Cargo Revenue	211.92	175.31	138.58	130.37	128.47	130.83
Ground Handling	19.97	37.74	42.87	40.78	44.32	47.67
Into Plane Service	0.00	0.00	0.80	1.13	1.29	1.46
Other Commercial Income	10.62	4.72	7.13	7.13	7.13	7.13
Total	**514.11**	**604.72**	**599.10**	**708.48**	**771.67**	**831.77**

Scenario – 2 - Non Aeronautical Revenues: Base year for future projections 2010-11 actuals, further projections as per Authority's forecast)

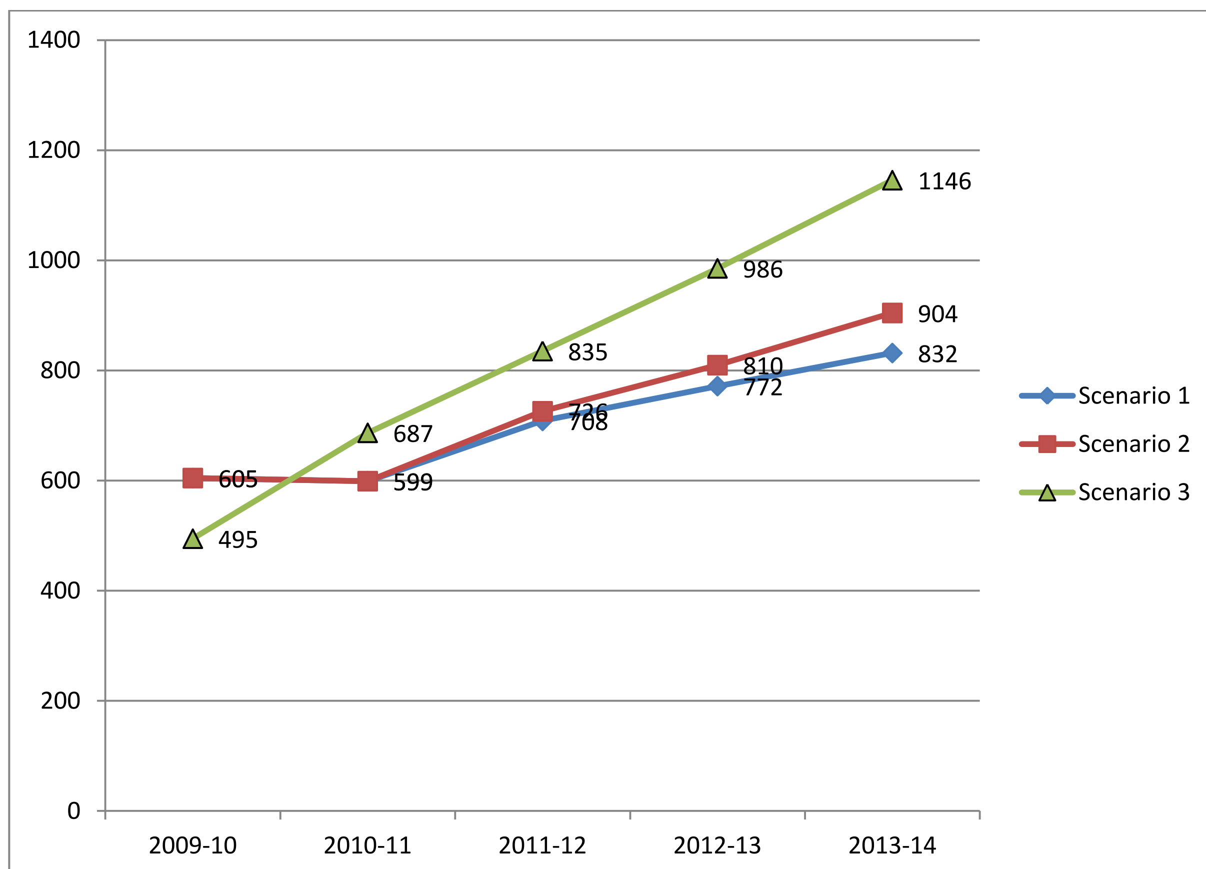
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Flight Kitchen Royalty	12.62	13.00	28.87	33.34	38.53	44.57
CUTE Counter Charges	2.70	4.96	5.07	5.80	6.47	7.22
Duty Free	88.11	120.03	81.08	120.80	140.42	163.22
Advertisement	47.61	27.99	42.55	50.19	60.91	73.97
Public Admission Fee	0.00	0.00	0.00	0.00	0.00	0.00
F & B Income and Lounges	23.45	31.19	41.16	56.71	67.40	79.15
Bridge Mounted Equipment	0.00	0.00	1.60	5.49	6.19	6.98
Retail	0.00	9.55	27.99	41.84	51.15	62.37
Foreign Exchange	0.00	0.00	29.94	49.80	56.47	64.21
Telecom	14.76	18.96	11.06	13.41	16.27	19.76
Land, Space and Hangar	56.35	132.14	123.27	139.82	148.15	144.49
Airport Service Charges		0.00	0.00	11.38	12.34	13.37
Radio Taxi	2.94	3.06	7.04	7.65	9.29	11.28
Car Park	23.06	26.07	10.09	5.96	7.23	13.18
Transit Hotel	0.00	0.00	0.00	1.80	1.94	2.10
Cargo Revenue#	211.92	175.31	138.58	132.82	132.41	137.81
Ground Handling	19.97	37.74	42.87	40.78	46.05	52.00
Into Plane Service	0.00	0.00	0.80	1.20	1.42	1.69
Other Commercial Income	10.62	4.72	7.13	7.13	7.13	7.13
Total	**514.11**	**604.72**	**599.10**	**725.93**	**809.78**	**904.48**

Cargo Revenue has been treated as Aeronautical during the period 2008-09 and part of 2009-10, when DIAL was rendering the services on their own (Refer para 402 to 403 below.

Scenario –3 - Non Aeronautical Revenues: As per Authority's basis of projection (Base year 2008-09 actuals, further projections as per Authority's forecast)

	2008-09	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Flight Kitchen Royalty	12.62	14.43	28.87	33.34	38.53	44.57
Duty Free	88.11	120.03	133.92	155.66	180.93	210.30
Advertisement	47.61	54.45	61.84	74.99	91.00	110.51
Public Admission Fee	0.00	0.00	0.00	0.00	0.00	0.00
F & B Income and Lounges	23.45	31.19	41.16	49.91	60.57	73.55
Bridge Mounted Equipment	0.00	0.00	1.60	1.81	2.04	2.30
Retail	0.00	9.55	27.99	33.94	41.19	50.02
Foreign Exchange	0.00	0.00	29.94	34.80	40.45	47.02
Telecom	14.76	18.96	21.53	26.11	31.69	38.48
Land, Space and Hangar	56.35	132.14	123.27	161.47	197.73	223.05
Airport Service Charges	0.00	0.00	0.00	11.38	14.26	17.88
Radio Taxi	2.94	3.36	7.04	8.54	10.36	12.58
Car Park	23.06	26.37	29.95	36.32	44.08	53.53
Transit Hotel	0.00	0.00	0.00	1.80	2.08	2.41
Cargo Revenue		34.27	122.31	136.51	152.57	170.76
Ground Handling	19.97	37.74	42.87	51.80	58.49	66.05
Into Plane Service	0.00	0.00	0.80	0.95	1.12	1.33
Other Commercial Income	10.62	12.15	13.79	15.93	18.41	21.29
Total	**299.49**	**494.65**	**686.89**	**835.25**	**985.50**	**1145.65**

375. A Graphical representation of the impact of the above three scenarios is as under:



Year/ Rs in crores	Non Aeronautical Revenues under Scenario 1	Non Aeronautical Revenues under Scenario 2	Non Aeronautical Revenues under Scenario 3
2009-10	605	605	495
2010-11	599	599	687
2011-12	708	726	835
2012-13	772	810	986
2013-14	832	904	1146

376. In line with the universally accepted principle that airports should strive to generate higher non-aeronautical revenue and DIAL's own objective of obtaining higher revenues through "concession under Joint Venture with the airport operator", it will only be fair if the higher of the figures in the above tables are used for present tariff determination purposes. Therefore, the Authority proposes to use the figures that have been arrived at based on

the approach recommended in para 373 above (i.e. scenario 3), for the tariff determination purpose.

377. The impact of position stated in para 376 on the X factor has been analysed to be as under:

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
Non-Aeronautical Revenues	-774.30%	-137.94%	-730.88%	133.40.%

Non Transfer Assets

378. In their submission, DIAL have not included gross revenue from Non-Transfer Assets (***assets other than Aeronautical and Non Aeronautical***) towards cross-subsidization of aeronautical costs while determining the target revenue.

379. They have submitted that Non Transfer Assets have been defined in OMDA as under:

"Shall mean all assets required or necessary for the performance of Non-Aeronautical Services as listed in Part II of Schedule 6 hereof as located at the Airport Site (irrespective of whether they are owned by the JVC or any third entity), provided the same are not Non-Aeronautical Assets."

380. DIAL have, stated that based on provisions of OMDA, they have considered all assets as Non Transfer Assets which are providing Non Aeronautical services as listed in part II of schedule 6 and which are:

- *"Not located within or form part of any terminal building*
- *are not conjoined to any other Aeronautical Assets,*
- *such assets are capable of independent access and independent existence or are not predominantly servicing/catering any terminal complex/Cargo complex."*

381. They have further stated that *"incomes from such assets are not to be included … for the purpose of cross subsidization"*.

382. It is observed that in terms of the SSA, 30% of the gross revenue generated by DIAL from the Revenue Share Assets is to be used to subsidize the Target Revenue. The Revenue Share Assets defined in the SSA do not include revenue from the Non Transfer Assets. Hence, the submissions of DIAL, on this count appear to be acceptable.

h. Treatment of Cargo, Ground Handling and Fuel Throughput Revenues

383. DIAL have considered the following streams of revenue as Aeronautical-related revenues and submitted forecasts for each of the streams along with explanation for such forecasts.

- Fuel throughput revenues and Into-Plane Concession Fee;
- Concession Fee from Cargo ;
- Concession Fee from In-flight kitchen ;
- Concession Fee from Bridge-mounted equipment ;
- Concession Fee from Ground handling;

384. DIAL submitted that in accordance with the provisions of SSA and OMDA, Cargo and Ground Handling are stated to be Non-Aeronautical services. Therefore, the revenues from such services should contribute to the extent of 30% for determination of tariffs for aeronautical services. DIAL also submitted that, in compliance with the Act, services and tariffs of the providers of these services may be treated as Aeronautical and appropriately regulated by AERA in line with the approved philosophy.

385. DIAL stated that Schedule 5 of OMDA clearly earmarks Fuel Farm Infrastructure as aeronautical services and Fuel throughput is not listed in the same schedule. In DIAL's view the Fuel throughput charge is akin to royalty and a profit sharing arrangement with the Oil Companies and not related to Hydrant Infrastructure usage. In their tariff application dated 20.06.2011, it has been stated that "*We understand that the issue of treatment of fuel throughput charges as aeronautical or non-aeronautical is*

sub-judice with the Appellate Authority. While we have treated, at this point of time, the Fuel Throughput charges as Aeronautical, appropriate modification in the tariff determination may please be made in the event of a contrary decision of the Appellate on this matter."

386. Further, vide their additional submission dated 15.11.2011, DIAL requested that the Authority may consider revising the financial model to remove the escalation of 7% in fuel throughput charges, envisaged w.e.f. 01.04.2011 and to include the same @ Rs. 601.07/KL w.e.f. the tariff approval date till 31.03.2013 with an annual escalation @ 7% every year thereafter. The change in assumption was requested by DIAL as they stated that the increase envisaged in the application could not materialize w.e.f 01.04.2011. Subsequently, however, vide their submission dated 25.11.2011, DIAL have requested for restoring the earlier request of increase w.e.f 01.04.2011.

387. DIAL stated that the three most significant categories of aeronautical-related revenues are fuel throughput royalty, cargo revenues and rentals. The growth in fuel throughput and cargo revenues was linked to independent traffic forecasts prepared for DIAL by MSE (through kilolitres of fuel and cargo tonnage respectively).

Aero Related Revenue Forecast Summary

Aero Related Revenue Forecast / (Rs in crores)	2009-10	2010-11	2011-12	2012-13	2013-14
Royalty from Fuel Throughput	85.00	105.30	120.20	139.80	160.90
Into Plane Fee	-	0.80	1.10	1.20	1.40
Cargo	175.30	138.60	131.80	130.10	132.60
In-Flight Kitchen	13.00	28.90	31.50	34.60	37.50
Bridge Mounted Equipment	-	1.60	5.50	6.00	6.40
Ground Handling	37.70	42.90	31.20	33.90	36.40
Space, Land & Hangar	132.10	123.30	144.00	152.60	148.80
CUTE	5.00	5.10	5.80	6.20	6.60
Total	**448.10**	**446.50**	**471.10**	**504.40**	**530.60**

388. **Cargo revenues** - As per OMDA, DIAL is to provide for two independent cargo providers to introduce competition in the Cargo Business at the airport. In line with this mandate, DIAL outsourced the existing brownfield

cargo business through a competitive bidding process to Celebi Delhi Cargo Terminal Management India Private limited (Celebi) and a second Greenfield operator was brought in through a competitive bidding process viz. Delhi Cargo Service Centre (DCSC). DIAL submitted that both the cargo service providers make two payments viz., the Rental (annual fixed area licence fee), and concession fee expressed as a percentage of the gross revenue of the cargo service providers. Celebi has a contracted revenue share of 36% of its turnover as a concession fee and DCSC has a revenue share of 24% of its turnover as a concession fee.

389. **DIAL's** forecast of the cargo concession fees receivable from the above concessionaires depend in part on the revenue percentages. These are based on concession contracts with cargo service providers, and are fixed throughout the concession term. The other variable is the forecast total revenue to the providers. This forecast is based on:

- Cargo traffic forecast growth , sourced from the MSE;
- Market share assumptions made by DIAL. Currently, Celebi provides 100% of international cargo services and CSC provides 100% of domestic cargo services. As the two providers start competing, market shares are assumed to be shared by both the operators. The International share of Celebi is assumed to go down from 100% to 70% in FY 2013-14 and Domestic share to increase from 0% to 30% in FY 2013-14.
- Emerging competition in the cargo business, tariff has been projected to reduce by 5% p.a. in FY 2011-12 and 2.5% p.a. in subsequent years.

390. DIAL submitted that the revenue of year 2009-10 also includes the gross turnover of the cargo business before it was concessioned out and that there has been a fall in the cargo revenue from the year 2010-11 due to outsourcing the cargo handling operations undertaken in terms of provision of OMDA wherein, DIAL receives a fixed revenue share from the cargo operator. The revenue for the year 2010-11 was also stated to be on a higher side due to higher demurrage charges mainly due to the software upgradation by customs, resulting in interruption of operations at the terminal leading to pile up of cargo and the closure of European skies due to the ash cloud problem.

391. DIAL assumed that going ahead the demurrage charges will be lower due to higher efficiency and this will lead to lower waiting time and demurrage resulting in lower revenue for DIAL. Further, going forward some of the revenues of international cargo will accrue from DCSC which has a lower revenue share of 24% with DIAL as compared to 36% in the case Celebi and as such on an overall basis there will be a fall in the revenue to DIAL from cargo business.

392. **In-flight kitchen revenues -** DIAL stated that the service providers make two types of payments, i.e., rental or an annual licence fee for the space and a concession fee expressed as a percentage of their total revenue. DIAL forecasted the concession fee based on concession contracts with in-flight kitchen providers. DIAL assumed that the market share and pricing of these concessionaires will remain the same and the forecast revenue is in line with the increase in number of departing passengers as forecast by the MSE. However, DIAL kept the rates constant due to competitive scenario.

393. **Bridge-mounted equipment (BME) –** DIAL stated that the service providers pay a fixed percentage of revenue as concession fee. The total concession fee payable is calculated by multiplying total revenue by the revenue share percentage. Total revenue consists of Ground power unit revenue; Pre air-conditioning unit revenue; and Potable water revenue. The forecasts for the revenue streams are based on the MSE forecast of air traffic movements as well as assumptions in aircraft types and use of remote stands. DIAL assumed no change in the rates in real terms.

394. DIAL assumed that in case of International movements, the revenues were considered from opening of Terminal 3 effective 28th July 2010 whereas, revenues from domestic movements were considered from 1st November 2010 and that the high growth rate observed in 2011-12 was due to the fact that the concession started part-way through 2010-11 (8 months).

395. **Ground handling revenues** - The Ground handling Service providers make two payments (1) Rental or annual licence fees, which has been covered under land rental below; and (2) concession fee expressed as a percentage of revenue. The forecast for the ground handling concession fees payable is based on the concession contracts with ground handling

service providers, and are fixed until the end of concession term. DIAL have made the following assumptions in forecasting the revenue from Ground handling:

- ATM forecast, sourced from the MSE;
- Ground handling service providers will have an equal market share;
- Split between different aircraft types, based on the current split and assumed to remain unchanged;
- Tariff assumptions, based on current tariff levels and assumed to remain unchanged in real terms.
- No revenues considered for NACIL "Air India" Flights (as both International and Domestic flights are being self-handled by Air India SATS Ground handling company).
- Current ground handling forecast has been based on historic ground handling revenues
- Forecasted revenues have been increased at the ATM growth rate of each year.

396. **Space, Land and Hangar rentals revenues –** DIAL submitted that the space rental accrues from the lease of space within the existing terminals and from the new Terminal 3. Further, due to a one-time settlement of legacy issues with NACIL in FY 2009-10 (which resulted in a spike in that FY), the revenues for past 4 years were recognized by DIAL. The revenue for the subsequent years are based on the contracts and the existing arrangements which have been escalated by 7.5% p.a. based on relevant contracts.

397. In case of lease of land, the revenue was based on various leases with Airlines, Government Agencies, Oil Companies and Private Agencies. On similar lines as in the case of space rent, due to a one-time settlement of legacy issues with NACIL the land revenues for past 4 years were recognized by DIAL. In addition to the above, the incremental land revenues for the year 2011 are mainly on account of the following:

- New lease with the Ground Handling Companies
- Concession of Cargo both Brownfield and Greenfield, and
- Revision of lease rates with Oil Companies.

398. DIAL assumed that from 2013-14 the payment from CISF is expected to stop accruing to DIAL as CISF has proposed to move their camp to their own land parcel.

399. The issues which arise for consideration herein are :

(i) **Whether the "aeronautical – related revenues" namely the fuel throughput** revenues and ITP concession fee; concession fee from cargo; concession fee from In-flight Kitchen; concession fee from Bridge Mounted Equipment; and concession fee from Ground Handling could be considered as non-aeronautical revenues?

(ii) Whether the revenue (both actual/forecast) projected by DIAL under these heads can be accepted?

<u>Observations in respect of treatment of revenues:</u>

400. **The Authority's position in respect of fuel throughput charges have been** appropriately reflected in its Order No.13/2010-11 dated 12.01.2011. DIAL have accepted the same subject to outcome of appeal.If the outcome of the appeal be in favor of DIAL then there will be charges to the Hypothetical RAB.

401. DIAL have treated ITP Services as non-aeronautical services in its submissions. In this regard, it is observed that ITP services are aeronautical services in terms of Section 2(a) of the Act. However, in the subject case, DIAL do not provide the ITP services themselves, and these are provided by the concessionaires. DIAL receives certain part of the revenue received by the ITP service providers as a concession fee. Therefore, the concession revenue received by DIAL from the ITP service provider(s) may be treated as non-aeronautical revenue in the hands of DIAL.

402. As regards Cargo and Ground Handling services, these are admittedly aeronautical services as per S.2(a) of the Act. DIAL have submitted that, in compliance with the Act, services and tariff of the providers of these services may be treated as aeronautical and appropriately regulated by the Authority. However, as per the provisions of OMDA and SSA, the revenues accruing to them from these services may be treated as non-aeronautical revenues. It is also observed that DIAL have kept the figures of expenditure etc. relating to these services outside the regulatory building blocks.

403. In this regard, it is observed that :

(i) As per Schedule 6 (Part I) of OMDA, inter-alia, following facilities and services have been termed as non-aeronautical services :

" *1. Aircraft cleaning services*
2. Airline Lounges
3. Cargo handling
4. Cargo terminals
5. General aviation services (other than those used for commercial air transport services ferrying passengers or cargo or a combination of both)
6. Ground handling services
7. Hangars
8. Heavy maintenance services for aircrafts
9. Observation terrace."

(ii) As per Section 2(a) of the Act, aeronautical service means any service provided **– *"……. (iv) for ground handling services relating to aircraft, passengers and cargo at an airport; (v) for the cargo facility at an airport; ……"***

Therefore, there is no doubt that the subject services have to be treated as aeronautical service in terms of the provisions of the Act and that the tariff for such services has to be determined by the Authority in accordance with the provisions of the Act.

(iii) In normal course, the revenue arising from any aeronautical services has to be treated as aeronautical revenue. However, in the present case, as discussed herein below, the request made by DIAL merits consideration as per provisions of Section 13(1)(a) itself.

(iv) As stated earlier, Section 13(1)(a) requires the Authority to, inter-alia, take into consideration ***"(vi) the concession offered by the Central Government in any agreement or memorandum of understanding or otherwise."*** Further, as per sub clause (vii) thereof, the Authority could also take into consideration ***"any other factor which may be relevant for***

the purposes of this Act." It is in light of these provisions that the provisions of SSA & OMDA are being considered in the present tariff determination exercise. Therefore, there is a case to see if the provisions of SSA & OMDA could be followed to the extent these could be reconciled with the provisions of the Act.

(v) A difficulty could arise in accepting the request of DIAL due to the provisions of sub clause (v) of Section 13(1)(a) which requires that the ***"revenue received from services other than the aeronautical services;"*** should be taken into consideration while determining tariff. Since the Cargo and Ground Handling are aeronautical services, it could be argued that the revenue received by DIAL from these services would not be covered under this sub-clause.

(vi) Cargo service at IGI Airport, New Delhi, presently, is not being provided by DIAL. Instead DIAL receives certain revenue as concession/ revenue share from the actual service provider(s). Hence, following the ratio of treatment of concession revenue received by DIAL from the ITP service providers as non-aeronautical revenue, the revenue received by DIAL from Cargo and Ground handling service providers could be considered as non-aeronautical revenue.

(vii) However, it is noted that DIAL was, for the part of 2009-10, providing cargo services on its own before the concessionaire Celebi Delhi Cargo Terminal Management India Pvt. Ltd., took over these activities. Consequently, the revenue received by DIAL from the cargo services during the part period of 2009-10 (when DIAL themselves were providing the services) may be treated as aeronautical revenue. Further, DIAL continues to provide cargo screening services at the concessioned out Cargo Terminals. The revenue and costs relating to cargo screening would, therefore, also need to be treated as aeronautical.

(viii) In light of the position explained in (vii) above, DIAL were requested to furnish the details in respect of revenue and costs relating to cargo services provided by them during 2009-10 as well as those relating to cargo screening services. These details are as at **Annexure- V.** The

impact of treatment proposed at (vii) above has been analyzed as follows:

	X Factor as per the base Model		X Factor after change in assumption	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
Cargo Related Sensitivity	-774.30%	-137.94%	-752.10%	-135.64%

404. The Authority has also considered the issue of treatment of services and revenue from Bridge Mounted Equipment (BME). It has been explained by DIAL vide mail dated 3rd December 2011 (**Annexure -VI**) that the concessionaire therein supplies (i) Power; (ii) Pre-conditioned air; and (iii) Water to the ground handling service providers and no direct billing or service is provided to the airlines by the concessionaire of BME.

405. As per Section 2(a) of the Act, any service provided for the ground handling services relating to aircraft, passengers and cargo at an airport is an aeronautical service. In the case of BME, the service is not being provided directly to the aircraft by the concessionaire but through the ground handling service provider. In other words, the BME concessionaire is a service provider to the ground handling service provider. However, activity itself is in the nature of ground handling service relating to the aircraft.

406. In view of the broad definition in the Act, it would appear that the service provided by the BME concessionaire may be treated as an aeronautical service. Consequently, BME concessionaire may be separately advised to take approval of the Authority in the matter. However, in view of the position discussed above, the revenue received by DIAL from the concessionaire could still be treated as non-aero revenue.

407. There does not seem to be any difficulty in recognizing the revenue received from in-flight kitchens as non-aeronautical revenue since there is nothing in the Act or the relevant agreements which would indicate otherwise.

Observations regarding proposed increase in FTC

408. As indicated earlier, DIAL have requested for an increase of 7% in the fuel throughput charges on the basis of their contractual arrangements. The issue of determination of FTC on the basis of contractual arrangements has been considered in detail in the Authority's Order No.07/2010-11 dated 04.11.2010. The Authority had therein made several observations against such an approach. However, the increases proposed therein were approved, on an adhoc basis, in the absence of a more appropriate alternative. Subsequently, it was expected that the users, i.e., airlines would suggest some viable alternatives. However, though the airlines had strongly resisted the approach suggested by the airports, they have not come up with any viable alternative approach till date. In this light, the Authority is inclined to consider DIAL's proposal for increase of 7% in the fuel throughput charges w.e.f. 01.04.2011. In any case, since the increased revenue from FTC is being considered towards aero yield the increase in the rate of FTC is likely to be mitigated substantially in terms of lowering of the other aero charges.

Observations regarding forecast

409. The issue of traffic forecast relating to passengers, cargo and ATM movements has been discussed subsequently in the Traffic Forecast Section. As indicated therein, the forecast of traffic for the years 2011-12, 2012-13 and 2013-14 by using 10 years CAGR with 2010-11 as base year will be appropriate. The figures for 2009-10 and 2010-11 can be considered on actual basis.

410. Revenue forecast for the subject services/heads has to be, therefore, made on the above basis rather than on MSE forecast basis as done by DIAL. More specifically the forecast could be in the following manner :

(i) Fuel throughput charges – The forecast for 2011-12, 2012-13 and 2013-14 is made on the basis of ATM movements and year on year escalation of 7% as per contractual arrangement between DIAL and oil companies with 2010-11 as base year subject to the condition that wherever DIAL's own forecasts are higher the same are being

accepted. Figures for 2009-10 and 2010-11 are taken on actual basis.

(ii) Into Plane Fee – ITP services have commenced only in 2010-11. Going forward the forecasts are being made on the basis of ATM movements and year on year escalation of 5% or WPI each year whichever is lower contemplated by the ITP service providers in their MYTP with 2010-11 as base year subject to the condition that wherever DIAL's own forecasts are higher the same are being accepted.

(iii) Cargo – In addition to using MSE forecasts, DIAL have also considered a reduction of 5% in tariff in FY 2011-12 and 2.5% p.a. in subsequent years. However, in the recent tariff determinations in respect of the Cargo Concessionaires, there has been no indication of any reduction in tariffs. Therefore, there are no grounds for accepting DIAL's submissions on this count. Further, in the present case the actual revenue during 2010-11 has got reduced as compared to 2009-10 due to outsourcing of cargo operations. This issue has been discussed in previous section relating to non-aeronautical revenue forecasts and an approach which insulates forecasts from the same has been proposed. However, in the case of cargo operations, as per clause 8.5.7 (ii)(c)(i) of OMDA, DIAL is mandated "*to ensure that, ..., at least two unrelated (non-Group) Entities (of which one may be the JVC) are responsible for provision of cargo handling services at the Airport.........*". Therefore, the concessioning of cargo handling is mandated under OMDA and is not merely a business decision of DIAL. Though DIAL itself could have been one of the entities, on balance, the position herein is different from concessions given in respect of other activities/services. Therefore, in the present case, the forecast of revenue on the basis of cargo traffic forecast on 10 year CAGR basis with no reduction in tariff may be considered.

Further, the proposed approach implicitly disregards the various assumptions made by DIAL pertaining to, inter alia, respective market shares of the two concessionaires i.e., Celebi and Delhi Cargo

Service Centre, reduction in effective tariffs, reduction in demurrage charges etc.

(iv) Ground Handling – In this case also the revenues during 2011-12 are projected to reduce to Rs.31.20 crores as compared to Rs.42.90 crores during 2010-11. In fact the forecast figures for 2012-12 (Rs.33.90 crores) and 2013-14 (Rs.36.40 crores) are also lesser than actual of 2010-11. The drop in revenue herein also can be ascribed to concessioning out of these activities. Therefore, the revenue for each of the years in the Control Period could be forecast on the basis of 10 year CAGR for ATM movements with 2008-09, as base year, subject to the condition that wherever DIAL estimates are higher the same may be accepted.

(v) Bridge Mounted Equipment – This activity has commenced during 2010-11 with the opening of T3. Being a new activity and in absence of any other reliable basis, the forecast made by DIAL is proposed to be accepted for the first Control Period.

(vi) Space, Land and Hanger –The land, space and hangar revenues for FY 2011-12 to FY 2013-14 have been proposed to be projected using the values for FY 2010-11 as the base and subsequently considering an escalation in revenues based on total passenger traffic growth and an increase on account of higher activity as projected by DIAL for FY 2011-12 to FY 2013-14. The figures for 2009-10 and 2010-11 can be considered on actual basis.

(vii) In-Flight Kitchen – For 2009-10 and 2010-11, In-flight kitchen revenues for 2008-09 to be considered as the base figure, escalated by the historical passenger growth rates subject to the condition that wherever the actual revenues are higher the same are being accepted. For 2011-12 to 2013-14, the base value of revenue arrived for 2010-11 to be projected based on the traffic growth.

(viii) CUTE - DIAL's forecast for charging the cute counter charges from domestic airlines @ Rs. 500 per departing domestic flight over and above the Rs. 1500 per international flight already being charged

may also be accepted. The change in the forecasts made in respect of the CUTE counter charges is as follows:

Details	2009-10	2010-11	2011-12	2012-13	2013-14
Initial submission made by DIAL (Cute Charges for Intl flights alone)	4.96	5.07	5.75	6.21	6.64
Revised projections (Cute Charges for both Intl and Dom flights)	4.96	5.07	6.26	11.93	12.81

411. DIAL have treated the CUTE Counter charges as Non-Aeronautical in nature. It is observed from the AAI Ground Handling Regulations 2007, that **"Passenger and Baggage Handling at the Airport Terminal" are treated as** Ground Handling Services under Para 1.2 of Schedule 2 of the regulations. Since Cute Counters are used for passenger and baggage handling at the Airport Terminal, the service so provided is a ground handling service, which is an aeronautical service. Further, the Cute Charges are apparently directly received by DIAL from the airlines in lieu of the service provided to them. It is, therefore, proposed to treat the revenue received from the Cute Counter charges as aeronautical revenue. The impact of such consideration on tariff increase requirement would be as follows:

	X Factor as per DIAL submission		X Factor after considering change in assumptions (increase w.e.f 01.02.2012)	
Impact of Considering CUTE Counter charges as Aeronautical	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-770.96%	-137.60%

412. On the basis proposed in para 410 above, the forecasts in respect of subject activities / services are made as under :

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Flight Kitchen Royalty	12.62	14.43	28.87	33.34	38.53	44.57
Bridge Mounted Equipment	0.00	0.00	1.60	1.81	2.04	2.30

Land, Space and Hangar	56.35	132.14	123.27	161.47	197.73	223.05
Cargo Revenue	0.00	34.27	122.31	136.51	152.57	170.76
Ground Handling	19.97	37.74	42.87	51.80	58.49	66.05
Into Plane Service	0.00	0.00	0.80	0.95	1.12	1.33
Total	**88.94**	**218.58**	**319.72**	**385.88**	**450.48**	**508.06**

i. Traffic Forecast

413. DIAL submitted that they had commissioned an independent study for forecasting traffic at the airport to Madras School of Economics (MSE) with the following scope:

'to develop a forecast model using advanced time series techniques developed recently. The study will examine the short run as well long run relationship between air-travel demand and other economic factors. One of the important objectives would also be to compare the results across various benchmark studies already existing for India.'

414. The summary of the traffic forecast as per the said report of MSE is as under:

	Pax Growth (%)			**ATM Growth (%)**			**Cargo Growth (%)**			
Year	Dom	Intl	Tot	Dom	Intl	Tot	Exp	Imp	Dom	Tot
2011-12	9.4	8.2	9.0	8.2	2.4	6.8	5.75	10.15	10.34	8.65
2012-13	10.2	8.9	9.8	8.9	8.0	8.7	6.83	11.59	13.62	10.66
2013-14	8.9	7.8	8.5	7.7	7.0	7.6	6.22	10.10	11.51	9.31

415. DIAL also made a presentation on traffic forecasting methodology used by them on 05.07.2011. During the presentation, the Authority had the benefit of the expertise of Prof. N.R. Bhanumurthy, National Institute of Public Finance and Policy (NIPFP). The comments and observations of Prof. Bhanumurthy in respect of the forecast proposed by DIAL are enclosed separately at **Annexure VII**. Briefly, Prof. Bhanumurthy was of the view that the forecasts from the model may not be robust and using this for any policy formulation may lead to unwarranted results.

416. Further, historical traffic movement for the Passenger, ATM and Cargo movement at IGI Airport, New Delhi over the past 10 year period, i.e., from

2001-02 to 2010-11, based on Airports Authority of India (AAI) Traffic Review report has been analysed. Historical trends could be better representations of potential growths trends in future by choosing to analyse historical data over longer periods of time. The 10-year period chosen includes depressed traffic years of 2008-09 as well as buoyant tariff growth years of 2004-05 and 2005-06. It is noted that historically, over a 10-year period, domestic passenger traffic at Delhi airport has grown at a average annual rate of 17.66% and international passenger tariff has grown at an average annual rate of 10.70%. The summary of the historical traffic growth is as under:

	Pax Growth (%)		ATM Growth (%)		Cargo Growth (%)			
	Dom	Intl	Dom	Intl	Exp	Imp	Dom	Tot
10 Year CAGR	17.66	10.70	13.38	11.52	6.05	15.66	13.86	11.61

417. Further, the ATM movements and Passenger traffic were also analysed over financial year 1972–73 to 2010–11 to determine the correlation between them. The exercise was conducted separately for International ATMs and International Passengers as well as for Domestic ATMs and Domestic Passengers. The regression analysis suggests an adjusted R Square value of 0.977 between International ATM Movements and International Passenger traffic and an adjusted R Square value of 0.983 between Domestic ATM Movements and Domestic Passenger traffic showing a strong correlation between the ATM movements and the passenger traffic.

418. It is observed that the growth rates projected by MSE are substantially lower than the historically observed rates of growth in traffic movement at IGI Airport.

419. In view of the observations made by Prof. Bhanumurthy and the fact that the forecasts presented by DIAL vary significantly from long term historical trends, it is felt that forecast of traffic in line with the historical trends would be a more reliable basis. Further, in its recent decision in respect of DF levy, vide Order No.28 dated 14.11.2011, the Authority has used traffic forecasts on 10 year CAGR basis (albeit over the period 2000-01 to 2009-

10). Thus, the Authority proposes to use the 10 years CAGR figures (for 2001-02 to 2010-11) for tariff projections.

420. In view of the above, if the 10 year CAGR is used for forecasting Passenger, ATM and Cargo traffic for the years 2011–12, 2012-13 and 2013-14, with the year 2010-11 as the base, and actual traffic movement for financial years 2009-10 and 2010-11, the impact on tariff determination would be as under:

	X Factor as per DIAL submission		X Factor after considering above mentioned traffic numbers	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
Traffic Growth Forecast	-774.30%	-137.94%	-662.64%	-124.75%

421. The final traffic number that have been considered by the Authority on the 10 year CAGR basis is as under:

Traffic Figures Considered for Tariff Determination					
	2009-10	*2010-11*	*2011-12*	*2012-13*	*2013-14*
Domestic Passenger	1,78,10,484	2,04,06,867	2,40,09,767	2,82,48,770	3,32,36,183
International Passenger	83,14,211	92,64,932	1,02,56,327	1,13,53,806	1,25,68,722
Domestic ATM	1,65,789	2,09,450	2,37,476	2,69,253	3,05,282
International ATM	63,438	69,394	77,387	86,300	96,240
Cargo Export (in Metric Tonne)	1,89,184	2,14,848	2,27,838	2,41,614	2,56,222
Cargo Import (in Metric Tonne)	1,44,289	1,79,045	2,07,087	2,39,521	2,77,035
Cargo Domestic (in Metric Tonne)	1,63,913	2,09,109	2,38,083	2,71,072	3,08,631

__Traffic Forecast Correction__

422. The Authority, in its Order No.13/2010-11 dated 12.01.2011, had stated that the forecast correction mechanism will provide a useful tool for sharing the risk between stakeholders in the light of variations in traffic forecasts and help to minimize the need to re-open the tariff determination in light of traffic variations and that the system should-be symmetrical with the upper and lower band percentages being equal. The Order envisaged that as part

of the tariff determination process, the Airport Operators would be required to provide proposals for the values of the bands, supported by evidence for the rationale of such bands and that the Authority will review the operation of the bands and determine the final bands for the tariff determination. The Authority had also clarified that any variation outside of the bands will be shared equally between the Airport Operator and users.

423. The Authority has noted that DIAL have not indicated any Traffic Band while forecasting for traffic projection. Therefore, in normal course, it would be assumed that DIAL are not seeking any corrections in respect of traffic forecast errors. However, as discussed herein above, the Authority proposes to use 10 year CAGR figures instead of figures projected by DIAL. The proposed figures are substantially higher than the DIAL projections. Therefore, it is possible to argue that traffic risk may have enhanced due to the proposed action of the Authority. In this light, the Authority has considered proposing a symmetrical band of say (+/-) 5% of the forecast percentages.

j. <u>Calculation of CPI –X</u>

424. DIAL have stated that ***"In addition to the value of 'X' determined by equating the NPV of the Target and the Actual revenues, CPI Inflation will be added to the tariff. Accordingly, it is understood that the regulator will give an allowance towards inflation (CPI) over and above the target revenue being submitted herewith based on actual CPI numbers."***

425. DIAL also submitted that they did not consider any inflationary increase and have assumed that the regulator will adjust the charges annually based on the actual CPI data.

426. Vide their submission dated 15.11.2011, DIAL provided a 5 year forecast of CPI-IW at 7% per annum based on Survey of Professional Forecasters as published by RBI on its website.

<u>Observations</u>

427. In considering DIAL's submissions and formulating tentative views on the issue, following aspects need to be reviewed:

- Treatment of aeronautical charges in the shared till inflation – X price cap model as per the SSA.
- Illustrative Numerical Example of the Price Cap Approach for X factor determination in the SSA.

428. According to Schedule 1 of the SSA

"The maximum average aeronautical charge (price cap) in a particular year 'i' for a particular category of aeronautical revenue 'j', is then calculated according to the following formula:

$AC_i = AC_{i-1} x (1 + CPI - X)$

where CPI = average annual inflation rate as measured by change in the All India Consumer Price Index (Industrial Workers) over the regulatory period"

429. Further, in the illustration provided in Schedule 1 of the SSA, X factor is determined together with considering inflationary increases.

430. Based on the above mentioned provisions in the SSA, the X Factor would accordingly need to be computed considering inflationary increases along with X factor. In view of the same, the Authority is of the opinion that the approach proposed by DIAL is not acceptable. The impact on tariff increase requirements of incorporating inflation as discussed above would be as under:

	X Factor as per DIAL submission		X Factor after considering inflation along with X factor	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
Calculation of X factor	-774.30%	-137.94%	-693.12%	-131.18%

k. Sensitivity Analysis

431. The parameters considered and the Sensitivity Analysis for various regulatory building blocks to arrive at the cumulative impact of the sensitivity analysis, considered by the Authority are as under:

(i) **Traffic Projection** - DIAL had commissioned a study of traffic at Delhi airport from Madras School of Economics and have considered the base case growth forecasted by MSE for Passenger, ATM and Cargo Movements. The growth rates considered by DIAL are presented below:

	Pax Growth (%)			**ATM Growth (%)**			**Cargo Growth (%)**			
Year	Dom	Intl	Tot	Dom	Intl	Tot	Exp	Imp	Dom	Tot
2011-12	9.4	8.2	9.0	8.2	2.4	6.8	5.75	10.15	10.34	8.65
2012-13	10.2	8.9	9.8	8.9	8.0	8.7	6.83	11.59	13.62	10.66
2013-14	8.9	7.8	8.5	7.7	7.0	7.6	6.22	10.10	11.51	9.31

For the purpose of sensitivity analysis, Traffic Growth Rate based on CAGR for last 10 years (2001-02 to 2010-11) for projecting growth in Passenger, ATM and Cargo Movements have been considered.

	Pax Growth (%)		ATM Growth (%)		Cargo Growth (%)			
	Dom	Intl	Dom	Intl	Exp	Imp	Dom	Tot
10 Year CAGR	17.66	10.70	13.38	11.52	6.05	15.66	13.86	11.61

The impact on tariff determination would be as under:

	X Factor as per DIAL submission		X Factor after considering above mentioned traffic numbers	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
Traffic Growth Forecast	-774.30%	-137.94%	-662.64%	-124.75%

The final traffic number that has been considered by the Authority on the basis 10 year CAGR is as under:

Traffic Figures Considered for Tariff Determination					
	2009-10	***2010-11***	***2011-12***	***2012-13***	***2013-14***
Domestic Passenger	1,78,10,484	2,04,06,867	2,40,09,767	2,82,48,770	3,32,36,183
International Passenger	83,14,211	92,64,932	1,02,56,327	1,13,53,806	1,25,68,722
Domestic ATM	1,65,789	2,09,450	2,37,476	2,69,253	3,05,282
International ATM	63,438	69,394	77,387	86,300	96,240
Cargo Export (Metric Tonne)	1,89,184	2,14,848	2,27,838	2,41,614	2,56,222
Cargo Import (Metric Tonne)	1,44,289	1,79,045	2,07,087	2,39,521	2,77,035
Cargo Domestic (Metric Tonne)	1,63,913	2,09,109	2,38,083	2,71,072	3,08,631

(ii) **Non – Aeronautical Revenues** - DIAL projected the non-aeronautical revenues for various heads by forecasting the total turnover of individual concessionaires for FY 2011-12 based on annualized turnover of 4 months (December 2010 to March 2011) and escalating the revenues for traffic growth plus an additional growth of 5% based on increase in spend. DIAL then projected the revenue for tariff purposes based on (i) Revenue Share of DIAL from the concessionaire and (ii) Maximum of Revenue Share amount and Minimum Annual Guarantee from the concessionaire. For the purpose of sensitivity analysis, the Consultants have carried out the following:

a. For FY 2009-10 and FY2010-11, the non-aeronautical revenues for various revenue heads for FY2008-09 to be considered as the base figure, escalated by the historical Passenger/ ATM/ Cargo growth rates (whichever is applicable as proposed by DIAL) for those years.

b. The numbers thus arrived at to be compared with the actual revenues achieved during those years and the higher of the two values to be adopted for further projections.

c. For FY2011-12 to FY 2013-14, the base value of revenue arrived for FY2010-11 to be escalated based on the traffic growth.

d. In line with the proposed decision of the Authority, ITP Services to be considered as Non-Aeronautical Revenue.

e. Considering DIAL submission of incorporation of Rs. 500 per domestic departing ATM for CUTE counter charges and treating the same as aeronautical revenue under ground handling.

f. To consider assets, expenses and revenues related to Cargo Handling till 24th November 2009 as aeronautical for the purpose of tariff determination and to consider assets, expenses and revenues related to Cargo Screening for the full control period as aeronautical for tariff determination.

g. The impact on X factor from Non Aeronautical Revenues sensitivity is analyzed as under:

	X Factor as per DIAL submission		X Factor after considering change in assumptions	
Non Aeronautical Reveues	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-730.88%	-135.40%

h. The impact on X factor from Cute Counter charges sensitivity is analysed as under:

	X Factor as per DIAL submission		X Factor after considering change in assumptions	
Cute Counter Charges	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-770.96%	-137.60%

i. The impact on X factor on the treatment of Cargo Service sensitivity is analyzed as under:

	X Factor as per DIAL submission		X Factor after considering change in assumptions	
Cargo Revenue Treatment	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-752.10%	-135.64%

(iii) **Regulatory Asset Base –** For the purpose of sensitivity analysis of the RAB, the following have been considered for arriving at the cumulative impact.

a. **The exclusions as per the Authority's DF Order No.28/2011**-12 dated 14.11.2011.

b. No adjustments have been made to the foreign exchange variations considered by DIAL in the application.

c. The projected Future Capex of Rs.230 Crores from FY2011-12 to FY2013-14 has not been considered. As regards the maintenance capex projected, on the basis of justification submitted by DIAL, only the capex of Rs.127.78 crores during 2011-12 and 2012-13 has been considered. Figures in respect of 2013-14 have not been considered in the absence of any justification.

d. Treatment of VRS paid to AAI employees as expenses and not capex as projected by DIAL.

e. Financing Allowance considered by DIAL has been disallowed for the sensitivity analysis.

f. The impact on X factor of the above, is analysed as under:

	X Factor as per DIAL submission		X Factor after considering change in assumptions	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
DF Order Exclusions	-774.30%	-137.94%	-773.10%	-137.87%
Financing Allowance Disallowance	-774.30%	-137.94%	-723.68%	-132.63%
Disallowance of Future Capex	-774.30%	-137.94%	-770.82%	-137.59%
Disallowance/Change of Maintenance Capex	-774.30%	-137.94%	-771.64%	-137.67%
Foreign Exchange Variation	-774.30%	-137.94%	-772.64%	-137.76%
VRS Treatment	-774.30%	-137.94%	-778.94%	-138.42%

(iv) **Hypothetical RAB –** DIAL have submitted that in FY2008-09, there was an overlap of manpower costs of AAI staff as well as DIAL staff. For determination of Hypothetical RAB, DIAL have only considered the cost of AAI staff and have excluded the cost of DIAL staff as the AAI staff was mandated to support the working of existing terminals for that period. DIAL also excluded expenses of Rs. 0.82 Crores related to Runway 11/29 Operations & Maintenance cost from operating expenses

for determination of Hypothetical RAB for the purpose of the sensitivity analysis. It is proposed that the exclusions made by DIAL may not be accepted and the costs of AAI staff and DIAL staff as well as expenses related to Runway 11/29 Operations & Maintenance cost for determination of the Hypothetical RAB may be considered under a sensitivity analysis.

Further, DIAL had used a WACC of 11.60% for determination of Hypothetical RAB. However, the Authority proposes to use WACC of 10.33% offered by it for such determination.

The impact on Hypothetical RAB on account of change in assumptions is as under:

	Details	RAB (Rs.in crores)
1	**Hypothetical RAB as per DIAL's submission**	1119
2	Hypothetical RAB considering DIAL manpower costs and Runway 11/29 Operations & Maintenance cost	416
3	Hypothetical RAB after (1) considering DIAL manpower costs and Runway 11/29 Operations & Maintenance cost and (2) considering WACC as considered by Authority for the purpose of tariff determination under one of the scenario (i.e. 10.33%).	467

The impact on the X factor from WACC for Hypothetical RAB sensitivity is as under:

	X Factor as per DIAL submission		X Factor after considering change in assumptions	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
WACC as submitted by DIAL	-774.30%	-137.94%	-735.97%	-133.94%
WACC as determined by Authority	-774.30%	-137.94%	-790.93%	-139.64%

The impact on the X factor from Depreciation rate for Hypothetical RAB Sensitivity:

	X Factor as per DIAL submission		X Factor after considering change in assumptions	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
No Depreciation on Hypothetical RAB in the Control period	-774.30%	-137.94%	-756.07%	-136.05%
Depreciation on based on straight line method for a period of 27 years.	-774.30%	-137.94%	-773.42%	-137.85%
Depreciation on based on straight line method for a period of 57 years.	-774.30%	-137.94%	-764.29%	-136.91%

(v) **Weighted Average Cost of Capital** – The cumulative impact on the tariff determination has been considered on the WACC of 10.33% that has been arrived based on the following considerations:

a. 16.00% Cost of Equity.
b. The cost of refundable deposits at 0.00%.
c. Cost of Debt @ 12.17% during 2011-12 for Rupee Term Loan based on auditor certificate and no increase in future debt cost.
d. Considering loan amount of Rs.3650 crores for Rupee Term Loan based on auditor certificate.
e. Considering cost of debt @ 7.76% for ECB facility Loan of Rs. 1591 crores based on auditor certificate.

The impact on X Factor from Cost of Equity Sensitivity is as under:

	X Factor as per DIAL submission		X Factor after change in assumptions	
Cost of Equity @	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
18%	-774.30%	-137.94%	-641.04%	-122.93%
16%	-774.30%	-137.94%	-598.07%	-117.75%
14%	-774.30%	-137.94%	-555.81%	-112.46%

(vi) **Expenses –** for the purpose of sensitivity analysis, the Interest on DF loan has been considered as operating expense for the period from 01st March 2009 till 30th November 2011. Impact of the X Factor from Interest on DF Loan Sensitivity is as under

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
Considering interest on DF for the period	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
01.03.2009 to 30.11.2011	-774.30%	-137.94%	-828.75%	-143.43%
01.04.2009 to 30.11.2011	-774.30%	-137.94%	-828.61%	-143.41%
27.04.2011 to 30.11.2011	-774.30%	-137.94%	-781.53%	-138.68%
01.06.2011 to 30.11.2011	-774.30%	-137.94%	-780.40%	-138.56%

(vii) **US Dollar Rate -** DIAL have considered USD exchange for Rs.45.00 in the tariff application and had revised the same to an exchange rate of Rs.45.26 based on last 6 months average RBI reference rate in their submission dated 21.11.2011. For the sensitivity, reference has been made to RBI reference rate USD for latest 6 months, available till 25th November, 2011 which works out to Rs.46.824. Impact of the X Factor from US Dollar Exchange rate Sensitivity is as follows:

Parameter	X Factor as per the Base Model		X Factor after change in assumptions	
USD Exchange Rate	Upfront Increase in tariffs	Equated Annual Increase in tariffs	Upfront Increase in tariffs	Equated Annual Increase in tariffs
	-774.30%	-137.94%	-772.52%	-137.76%

(viii) **Inflation -** DIAL did not consider any inflationary increase and have assumed that the regulator will adjust the charges annually based on the actual CPI data. DIAL have provided a 5 year forecast of CPI-IW at 7% per annum based on Survey of Professional Forecasters as published by RBI on its website. Sensitivity on the impact on tariff

increase as been made by incorporating inflation into the formula for calculation of X factor as per SSA provisions.

	X Factor as per DIAL submission		X Factor after considering inflation along with X factor	
	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
Calculation of X factor	-774.30%	-137.94%	-693.12%	-131.18%

432. Based on the above the cumulative impact on the X Factor after considering change in assumptions are as under:

	X Factor as per DIAL submission		X Factor after considering change in assumptions (increase w.e.f 01.02.2012 and subsequently on 01.04.2012 and 01.04.2013)		X Factor after considering change in assumptions (increase w.e.f 01.04.2012 and 01.04.2013)	
Cummulative Impact	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-280.36%	-71.95%	-334.63	-148.00%

I. <u>Issue of 10% increase</u>

433. This issue has been discussed in detail in the para 30 to 38 above. There is nothing on record, presently, to change the views earlier taken by the Authority. Further, as brought out in the section relating to sensitivity analysis, the draft determination is resulting in X factor of (-)280.36%, which would result in a one-time increase of 287.36% (on account of CPI-X) in the airport charges on 1st February 2011, over and above the 10% increase (which DIAL received on 16th February 2009) in Base Airport Charges. Alternatively, considering an equated increase for each of the years in the regulatory period, the X factor becomes (-)71.95% which would result in increase of 78.95% (on account of CPI-X) in the airport charges on 1st February 2011, over and above the 10% increase (which DIAL received on 16th February 2009) in Base Airport Charges. In view of the proposed increase in tariff, the Authority further feels that the issue of allowing a 10% year-on-year increase in Base Airport Charges, as claimed by DIAL, has become an issue of academic interest only.

m. Tariff Structure/ Rate Card

Pricing Strategy for aeronautical charges

434. In respect of the pricing strategy for aeronautical services, DIAL, vide their 20th June 2011 submission, stated that *"The SSA has laid down determination of tariff based on price cap formula. DIAL has the flexibility to develop its own tariff structure that would enable it to innovatively design the tariff structure in line with market positions and marketing objectives. The current proposal is for the approval of a one-time increase in aeronautical revenues. At the appropriate stage, when AERA confirms the increase in aeronautical revenues, we shall submit the pricing mix which may be a combination of various aeronautical charges including User Development Fee."*

435. Vide their additional submissions dated 04.10.2011, 21.10.2011 and 25.11.2011, DIAL submitted the rate card in respect of the pricing strategy for aeronautical services. The indicative rate card w.e.f 01.02.2012, submitted by DIAL vide their final submission dated 25.11.2011 is at **Annexure -VIII.**

436. The indicative tariff, submitted by DIAL, would undergo changes due to the change in assumptions and change in the various figures proposed to be adopted by the Authority as indicated hereinabove.

437. The Authority also notes that Principle 10 in the Schedule 1 of SSA provides as under:

" *10. Pricing responsibility: Within the overall price cap the JVC will be able to impose charges subject to those charges being consistent with these pricing principles and IATA pricing principles as revised from time to time including the following:*

(i) Cost reflectivity: Any charges made by the JVC must be allocated across users in a manner that is fully cost reflective and relates to facilities and services that are used by Airport users;

(ii) Non discriminatory: Charges imposed by the JVC are to be non discriminatory as within the same class of users;

(iii) Safety: Charges should not be imposed in a way as to discourage the use of facilities and services necessary for safety;

(iv) Usage: In general, aircraft operators, passengers and other users should not be charged for facilities and services they do not use "

438. Thus, SSA contemplates that DIAL would be free to impose charges within the overall price cap subject to conditions stated therein. In view of this, for the present, the rate card proposed by DIAL is placed for stakeholder consultation with the caveat that the charges proposed would be, in-principle, reduced proportionately in line with the final decision of the Authority in respect of price cap and disposal of objections, if any, that may be received from stakeholders on the grounds mentioned in the said Principle 10 of the SSA.

439. In their submission dated 15.11.2011, DIAL have proposed a non-discriminatory 2% discount on all the domestic scheduled landings in case the landing charges are received by them within 15 days credit period. However, it has been the stated position of the Authority that discounts or rebates are commercial decisions of the airport operator. As such, the Authority proposes not to permit any adjustment on account of under recoveries due to discounts.

440. Collection Charges for PSF and UDF Revenue - In their tariff submissions, DIAL have considered a PSF collection charge at 2.5% of the PSF revenues for determination of the X factor. Based on the cumulative one-time increase in X factor of 280.36% as indicated subsequently, the year-wise PSF revenues and collection charges is presented below:

In Rs. Crores	FY2011-12	FY2012-13	FY2013-14
PSF Revenues	200.70	653.17	807.89
PSF Collection Charges	5.02	16.33	20.20
Net PSF Revenue	195.68	636.84	787.69

441. The Authority noted that the PSF (Security component) proposed by DIAL in their indicative rate card has been retained at the existing rates. It further noted that the 2.5% collections charges on the PSF is based on the existing practice. Further, it also noted that if the PSF increased in the same proportion in line with other aeronautical charges, i.e., about 3 times and the collection charges continue to be pegged on a percentage basis,

then it would translate into a collection charge 3 times the existing charges. Further, in the indicative rate card, DIAL have also proposed UDF on departing and arriving passengers and collection charges of Rs.3 per passenger if the bills are settled within the credit period of 15 days. The Authority after careful consideration is inclined to accept DIAL's proposal in this regard after stakeholder consultation. Furthermore, it will consider and decide the issue of the proposed collection charges, as above, at the stage of final determination keeping in view the stakeholder submissions.

n. Quality of Service

442. As per section 13 (1) (d) of the Act, the Authority shall monitor the set performance standards relating to quality, continuity and reliability of service as may be specified by the central government or any authority authorised by it in this behalf.

443. Besides these functions relating to monitoring of set performances standards the Authority is required to determine tariff, inter alia taking into consideration Section 13 (1) (a)(ii) " *…the service provided, its quality and other relevant factors;……"*

444. Therefore, in the scheme of the Act, the Authority has two mandates relating to quality of service – first, to consider the quality of service for determination of tariff and secondly, to monitor the set performance standards relating to quality of service. These are two distinct functions - one relates to determination of tariff whereas another relates to monitoring of set performance standards.

445. As per Principal no.7 of Schedule 1 of SSA- *"in undertaking its role AERA will monitor, pre-set performance in respect to service quality performance as defined in the Operations Management Development Agreement (OMDA) and revised from time to time."*

446. It is submitted that OMDA already lays down detailed quality parameters / requirements.

447. Chapter IX of OMDA deals with Service Quality requirements. It prescribes both Objective and Subjective Service Quality requirements.

448. Clause 9.1.2 of OMDA prescribes that the JVC shall, within the time frame mentioned therein, achieve the **Objective Service Quality Requirements set out in Schedule 3.** It is also provided in the above clause of OMDA that the JVC shall on a quarterly basis, measure compliance of Objective Service Quality Requirements in accordance with Schedule 3 and provide compliance reports to AAI in a timely manner.

449. Further, it is provided in the above clause of OMDA that:

"At any time after the JVC is obligated to achieve and maintain a particular Objective Service Quality Requirement, in the event that the immediately succeeding quarterly report show that the Airport (or any part thereof) is rated below the respective Objective Service Quality Requirement, the JVC will achieve the particular Objective Service Quality Requirement within 30 days of the last submitted quarterly report. Should the JVC fail to achieve the above, or if the Airport (or any part thereof) continues to perform below the targets mentioned in Schedule 3, the JVC shall pay to the AAI 0.5% of the monthly Revenue (prior to default) for every month, that the standards are below any of the Objective Service Quality Requirements, for each such performance area, as liquidated damages provided however that the total liquidated damages payable hereunder shall not exceed 1.5% of the monthly Revenue (prior to default)."

450. Clause 9.1.3 of OMDA prescribes Subjective Service Quality requirements (set out in Schedule 4). The clause prescribes that the JVC shall, commencing from the first anniversary of Effective Date, and thereafter every quarter, participate in the IATA/ACI AETRA passenger survey.

451. The clause 9.1.3 of OMDA further prescribes that the JVC shall ensure that, at the completion of the implementation of Stage 2 of the Initial Development Plan, the JVC achieves a rating of 3.75 in the IATA/ACI AETRA passenger survey or greater and maintains the same throughout the Term.

452. Further, it is also provided in the above clause of OMDA that:

"The JVC shall at all times during the Term hereof make best endeavours to ensure improvement of the Airport in the IATA/ACI AETRA passenger surveys. After the completion of Stage 1, the Airport target rating shall be 3.5; provided however that after the completion of Stage 2, the Airport

*target rating shall be 3.75. The target rating of 3.5 on the IATA/ACI AETRA passenger surveys after the completion of Stage 1, and 3.75 after the completion of Stage 2, as furnished in the report as per sub-clause (b) above, is hereinafter referred to as "**Target Rating**". At any time after the completion of Stage 1 or Stage 2, in the event that two successive quarterly IATA/ACI AETRA passenger surveys show that the Airport is rated below the applicable Target Rating, then the JVC shall pay to the AAI 2.5% of the monthly Revenue (prior to default) for every month that the standards are below the Target Rating by more than 0.1 points and 1.25% of the monthly Revenue (prior to default) for every month in the event the standards are below the Target Rating by less than 0.1 points, as liquidated damages; provided however that the maximum period that liquidated damages shall be paid hereunder shall not exceed a period of 6 months."*

453. The Authority had issued Order no 13/2010-11 dated 12th Jan 2011 in the matter of Regulatory Philosophy and Approach in Economic Regulation of Airport Operators. Before the issue of the above said order, the Authority had issued a Consultation Paper seeking responses from the stakeholders on the Regulatory Philosophy and Approach in Economic Regulation of Airport Operators. Stakeholders raised some concerns relating to quality of service among other issues.

454. In clause 12 of the Order no 13/2010-11, the Authority specified that it had considered concerns raised by the stakeholders and decided, inter alia, as under:

(i) The Authority will consider the provisions and consequently the effect of concession agreements for the concerned airports while / at the time of determining tariffs for the first tariff cycle.

(ii) The Authority has also considered the concerns raised with respect to equal weights being assigned for each **objective service quality** measure for the purpose of calculating rebates on aeronautical charges. The Authority considers the argument in favour of specifying different weights for different objective service quality measures, taking into consideration its importance to users and efficient airport service delivery, as reasonable on purist grounds. But, the Authority believes that the relative importance of different objective service quality

measures is best judged by users of such services and the Authority would like to adopt a user agreed system of relative weights in future regulatory periods / tariff determination cycles. However, for the first tariff determination (control) period, in absence of such informed judgement from users, the Authority is specifying equal weights for each objective service quality parameter for rebate calculation purposes. Accordingly, the Authority hereby specifies that under-performance with respect to specified benchmark for each objective service quality measure will have a monthly rebate incidence of 0.25% of aeronautical revenue, subject to an overall cap of 1.5%.

(iii) With respect to **subjective service quality** parameters, concession agreements for DIAL, MIAL, BIAL and GHIAL specify a target rating of 3.5 on passenger satisfaction survey for subjective service quality assessment, but not for individual items. The Authority is now adopting an overall benchmark of 3.5 on the Airports Council International's Airport Service Quality (ACI ASQ) survey for subjective quality of service assessment to be undertaken by all major airports.

(iv) Further, the Authority believes that in order to progressively ensure better service quality performance within the control period, it would be appropriate to prescribe a higher overall benchmark for fourth and fifth years of the first control period. Accordingly it has decided that the overall benchmark for subjective quality requirements for the fourth and fifth year of the first control period shall be 3.75 on the ACIASQ survey.

(v) The Airport Operators, however, will be required to periodically (quarterly) report their performance on the overall measure as well as with respect to each subjective service quality parameter in the survey through quarterly quality of service reporting.

(vi) The Authority hereby specifies that under-performance with respect to specified benchmark for subjective service quality criteria will result in a monthly rebate incidence of 2.5% of aeronautical revenue.

(vii) The Authority has also considered the issue of specifying a transition period for **implementation of the scheme of quality of service**

measurement and determination of any rebates as relevant for major airports. Such transition period as may be required for each major airport shall be considered and specified at the time of respective tariff determinations based on review of the extant quality of service monitoring arrangements and procedures at each major airport, requirements under the respective concession agreements, etc. The Authority believes that in any case a maximum transition period of 1 year from the date of tariff determination would be a reasonable time for Airport Operators to appropriately align their processes / procedures and make any other required interventions.

(viii) Airport Operators would be required to develop a comprehensive performance measurement plan to operationalise the same. The proposed performance measurement plan would need to be submitted by Airport Operators along with tariff proposals for review and approval of the Authority. The performance measurement plan: would also be required to be updated annually for changes in monitoring-related aspects like busiest hour of the day, etc. Such an implementation framework will accordingly address the requirement to specify seasonality and periodicity of monitoring, etc.

455. Under clause 17 of the Order no 13/2010-11, the Authority further specified as under:

(a) While the Authority will discharge its other functions under the Act with respect to monitoring the set performance standards as may be specified by the Central Government (Section 13 (1) (d) of the Act), it will, in accordance with the provisions of Section 13(1)(a)(ii) of the Act, take into consideration the quality of service provided by Airport Operators on specified parameters and measures while determining tariffs.

(b) The Authority will require the specific service parameters to be measured at major airports. It hereby adopts a mechanism that will consider reduced tariffs for under-performance vis-a-vis specified benchmarks on quality of service to adequately protect the interest of users.

(c) Under such a mechanism, the calculated level of rebate for a year will be passed on to users of airport services in the form of reduced tariffs in the following year(s).

456. The Authority is conscious that an argument which can be raised against the rebate mechanism could be that since OMDA itself provides for penalty mechanism in the event of default in respect of quality parameters, a separate rebate mechanism as part of tariff would tantamount to penalizing the default twice. However, it has been the stated position of the Authority that the penalties contemplated in the concession agreements / contractual arrangements are contractual requirements whereas fixation of tariff commensurate with the quality of service is a statutory requirement. Therefore, the system of reducing tariff in case of default in quality of service is a system which implements the mandate of the Section 13(1)(a) of the Act.

457. In view of the above, the Authority proposes to use the rebate mechanism as indicated in Order No.13/2010-11 dated 12.01.2011 and the Guidelines dated 28.02.2011 in the case of DIAL as well.

o. <u>True up mechanism</u>

458. While issuing Directions No.05/20101-11 dated 28th February 2011, the Authority had considered the issue of uncontrollable elements, availability of information on their actual outturn and practicability of factoring any corrections (adjustments) in tariffs and had laid down factors for which the Authority shall:

   a. **provide corrections (adjustments) on "Tariff Year" basis; and**
   b. provide corrections (adjustments) between Control Periods.

459. The Authority, for avoidance of doubt, had also laid down factors for which, amongst others, the Authority shall normally not provide any correction either during a Control Period or between Control Periods.

460. The issue of uncontrollable elements in the context of multi-year tariff determination for DIAL has been examined in the above background. It is

proposed that the following factors may be reviewed by the Authority for the purpose of corrections (adjustments) to tariffs on a Tariff year basis:

a. Actual change in CPI as against CPI projected for a particular tariff year;
b. Change in traffic outside the band as may be considered by the Authority (as discussed in para 423 above);
c. Mandated costs incurred due to directions issued by regulatory agencies like DGCA;
d. Change in per unit rate of costs related to electricity and water charges as issued by the respective regulatory agencies;
e. Statutory operating costs related to fees, levies, taxes and other such charges by Central or State Government or local bodies, except taxes on corporate income and local taxes/levies, directly imposed on and paid for by DIAL on final product/ service provided by DIAL. For avoidance of doubt, any interest, payments, penalty, fines and other such penal levies associated with such statutory operating costs will not be taken into consideration. Any change in statutory operating cost relating to any input products or services procured by DIAL will also not be covered.

461. Further, the Authority may review the following components for corrections (adjustments) to tariffs between Control Periods:

a. Impact of change in rate of tax on corporate income as computed in **the forecast of "Target Revenues" for the previous Control Period;** and
b. Difference between realized return on Regulatory Base adjusted at the end of the Control Period for (i) actual capital expenditure as reviewed by the Authority; and (ii) actual disposal values as reviewed by the Authority and forecast return on Regulatory Asset Base forecast at the beginning of the Control Period. The RAB for return may also be adjusted in line with the position explained in para 161 above.

462. It is noted that the present multi-year determination of tariffs, for DIAL, will potentially result in tariff revision only over the remaining two financial years i.e. 2012-13 and 2013-14 in this Control Period. In view of

availability of actual information on outturn of identified elements and practicability of factoring corrections (adjustments) in tariffs over the remaining term of the present Control Period, it may be more practicable for the Authority to provide corrections (adjustments) to tariffs on account of impact of variations in factors mentioned above while reviewing and determining multi-year tariffs for the next Control Period.

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

464. In this regard, reference may be had to Direction No.05/20101-11 dated 28.02.2011 with respect to AERA (Terms and Conditions for determination of tariff for Airport Operators) Guidelines 2011 for operationalising such corrections (adjustments) to tariffs.

465. Also, the Authority may review such corrections (adjustments) in tariffs based on audited accounts / certified statements or records to be submitted by DIAL.

466. Further, in line with the above referred Direction, the Authority may normally not provide any correction for, inter alia, the following components either during the present Control Period or between the present and the next Control Period:

a) Any variation in operation and maintenance expenditure (other than costs as mentioned in above para 460 above, except in case of true up required, if any, consequent to the study to be commissioned by the Authority regarding benchmarking of operating Costs)
b) Any discounts or adjustments made in invoices to / payments by end users against approved tariffs;
c) Any payments made or penalties levied on DIAL, either on account of default in its obligations under SSA and OMDA for example payment for default in service quality requirements, or otherwise.
d) Any variation in Weighted Average Cost of Capital; and
e) Revenue from non-aeronautical services / services other than aeronautical services.

E. Summary of tentative views

467. A summary of the tentative views of the Authority is as under:

(a) Regulatory period - In terms of provisions of the SSA, requirements of information for tariff determination and information already/normally maintained by DIAL, the 5 year regulatory period may be considered from 1st April 2009 to 31st March 2014, i.e., in line with the normal Financial Years(s). Further, it is proposed to consider the collection period w.e.f 01.04.2012 (Refer para 62 to 75 above). Accordingly the tariff increases would be on 01.04.2012 and 01.04.2013.

(b) Regulatory Asset Base (RAB)

(i) Project Cost - The allowable project cost of Rs.12502.66 crores (including costs not incurred as on 31.03.2010), as per the Authority's DF Order is proposed to be considered as base figure for the purpose of determining DIAL's RAB for the aeronautical tariff determination (Refer para 78 to 80 above).

(ii) New ATC Tower - the ATC Tower would not be used by DIAL for provision of any aeronautical service that need to be considered under the present multi-year tariff determination. Though its cost of Rs.350 crores has been considered as part of the total project cost for the purposes of DF levy, it is proposed to exclude the same from the capital expenditure/RAB estimates for the purpose of determination of tariffs for aeronautical services provided by DIAL.(Refer para 81 to 84 above).

(iii) It is proposed to finally consider the RAB arrived at para 170 above for analysis and determination of tariff for aeronautical services. This figure has been arrived after appropriate adjustments/ disallowances to the RAB in para 96 above, which have been duly certified by DIAL's Auditors.

(iv) Allocation of Assets - It is conscious of the fact that allocation of the airport assets in to Aeronautical or Non-Aeronautical categories is important as in a shared till model, as is the case in determination of tariff for IGI Airport, the cost and assets are to be allocated for determining the target revenue over the regulatory period. However, in the current determination, only 2 years of the regulatory period are left. Considering the short time available with the Authority to commission an independent analysis of the allocation, and the resultant aeronautical and non-aeronautical assets and in the absence of any other relevant basis for allocation the Authority proposes, presently, to accept the proposal made on the basis of the **Jacobs' Report. However, the Authority** may commission an independent study in this regard. If upon analysis/ examination pursuant to such study the Authority concludes that the allocation mix herein and costs needed to be changed, it will consider truing up the allocation mix and costs at the beginning of the next regulatory control period. Further, if any excess revenue had accrued to DIAL, in view of the present approach, the same shall be clawed back (Refer para 116 above).

(v) DF Disallowances – DIAL submitted a certificate from its Auditor on the revised allocation of assets into Aeronautical and Non-Aeronautical Assets considering the disallowances in the DF order. However, the disallowances in the DF Order is directly attributable to non-aeronautical services, in the Gross Floor Area of T3 does not impact the use of such dual-use or mixed-use assets. The other costs disallowed, i.e., Rs.23.82 crores (Apron Area) and Rs.37.50 crores (Rehabilitation of Runway 10-28) are directly attributable to aeronautical assets. Hence, it is felt that a disallowance in GFA of T3 may not necessarily result in a change in the allocation percentage towards aeronautical and non-aeronautical assets. It is proposed to go by the initial allocation of 89.25% for

aeronautical assets and accept the revised year-wise monetization of DF and update the RAB accordingly. In line with the exclusions from RAB amounting to a total of Rs. 204.14 Crores, the sources of finance corresponding to such assets are also proposed to be reduced for the purpose of determination of WACC. The exclusions are proposed to be made from the sources of finance (i.e. Equity, Rupee Term Loan, ECB Loan and Lease Deposits) in FY2010-11, in the respective ratio of such sources of finance (Refer para 123 above).

(vi) Deposit for Metro Rail - The project cost of DIAL includes an amount of Rs.350 Crores towards the funding for metro connectivity to IGI Airport. The Authority is of the view that the contribution made by DIAL to DMRC is difficult to be classified as an Aeronautical Asset as it is not an asset which is necessary or required for the performance of any Aeronautical Service. However, this deposit was made by DIAL in terms of an explicit decision of the GOI, i.e., the then regulator **classifying it as an "Aeronautical Asset". Hence, it is proposed** to include the cost of Rs.350 crores paid by DIAL to DMRC towards aeronautical assets for the purpose of tariff determination (Reference para 127 to 134 above).

(vii) VRS Treatment - DIAL have considered, as part of RAB for tariff determination, a sum of Rs.250.88 Crores towards VRS payable to AAI as per OMDA. The Auditor Certificate submitted by DIAL, certifies that DIAL have paid a sum of Rs.151.10 crores to AAI towards VRS against the total liability of Rs.288.82 crores raised by AAI. Considering that the amount has not been paid on one time basis, it is proposed to expense out the actual amount paid/payable, i.e., Rs.199.35 crores during the Control Period instead amortising the entire amount in RAB (Refer para 135 to 143 above).

(viii) Capex – At present, there is no basis for the Authority to consider the projected Future Capex of Rs.230 Crores from

FY2011-12 to FY2013-14. As regards the maintenance capex projected, on the basis of justification submitted by DIAL the Authority proposes to consider only the capex of Rs.127.78 crores during 2011-12 and 2012-13 and in respect of 2013-14 figures, the Authority proposes not to consider the same in the absence of any justification. The Authority is also conscious that for a project of this size is would not be realistic to assume a zero maintenance capex in any year. Therefore, in case DIAL, during the stakeholder consultation, is able to substantiate/ justify the proposed capex, the Authority may be inclined to consider the same favorably (Refer para 144 to 158 above).

(ix) RAB for Return - DIAL have calculated the RAB for each year as the average of the opening and the closing RAB and the return is calculated on the average RAB, which is in accordance with the Guidelines in respect of other airports. The Authority proposes to accept the same (Refer Para 160 above).

(x) Hypothetical Regulatory Asset Base – DIAL considered 2009-10 as the first year of the regulatory period. The Hypothetical Asset Base was considered based on revenues and expenses of the year 2008-09. While doing so DIAL excluded the manpower cost of DIAL staff as the AAI staff was mandated to support the working of existing terminals for that period and had also excluded the O&M cost of the new assets viz. new runway. **Further, DIAL used a "Bid WACC" of 11.6% to** determine the Hypothetical Regulatory Base. The Authority proposes that for the purpose of tariff determination, the Hypothetical RAB be computed as Rs.467 crores using values of the following components for financial year 2008-09 (Refer para 195 above):

a) Revenues at prevailing tariffs in the year;

b) Operation and Maintenance cost without excluding the DIAL's own staff costs and maintenance costs in respect of new assets; and

c) Corporate tax pertaining to Aeronautical Services at the Airport.

d) WACC being offered by the Authority.

(xi) Financing Allowance - it is proposed that the financing allowance claimed by DIAL as part of the regulatory base for aeronautical assets is not considered for the purpose of tariff determination (Refer para 202 above).

(xii) Cost of Debt - The actual cost of Rupee Term Loan for 2011-12 has been recently adjusted upwards at 12.17% p.a., as certified by DIAL's Statutory Auditors. DIAL have considered an upward revision of 0.5%p.a. in the interest rates on the basis of continued increase in RBI repo and reverse repo rates since March, 2010 and a similar increase in SBI PLR. Keeping in view the recent developments including the mid quarter review by the RBI, it would appear that the interest rates have peaked. The Authority, therefore, does not propose to consider the upward revision proposed for the balance period. As regards the ECB Loan, it is proposed to consider the figure of Rs.1591.79 crores in rupee terms based upon the actual conversion rates applicable on dates of withdrawal. DIAL have shown a Forex Adjustment of Rs. 11.65 crores and Rs. 12.93 crores in FY 2010-11 for ECB Loan facility. DIAL have further proposed Rs. 11.65 crores adjustment in RAB in FY 2010-11 and Rs. 12.93 crores adjustment in CWIP for FY12. In line with the view taken by the Authority in the Airport Operator's Order and Guidelines, it is proposed not to consider any adjustments related to foreign exchange variations and disallow foreign exchange adjustments from ECB Loan. (Refer para 216 to 238 above)

(xiii) Cost of Equity - DIAL have, based on the recommendations of Leigh Fisher, claimed 24% as the cost of equity. Based on the

report of a study commissioned by the Authority through NIPFP and consideration of other relevant factors, the Authority has for the purpose of calculation considered 16% as cost of equity and has also given scenarios at 14% and 18% cost of equity. The Authority would like to request the stakeholders to specifically comment on this important issue so that it could take a final view in the matter with the benefit of the stakeholder responses. (Ref para 239 to 254 above).

(xiv) Treatment of Refundable Interest-free Security Deposits – DIAL have proposed that RSD may be treated as quasi-equity and a return of 24% may be allowed thereon. However, the cost of this amount to DIAL is zero as the security deposits are interest free. Hence, the Authority proposes that cost of RSD may be taken as zero for WACC purposes. (Refer para 255 to 264 above)

(xv) Depreciation – The Authority proposes to accept the depreciation amount certified by the Auditors. Further, it is proposed that in line with the decision taken by the Authority in its Airport Operators Order and Guidelines, the depreciation of assets of DIAL, to be commissioned or disposed off during a Regulatory Period, should be calculated pro-rata considering that such assets have been commissioned or disposed of half way through the Tariff Year. (Refer para 267 above)

(xvi) Depreciation of Hypothetical RAB - DIAL have proposed that the Hypothetical RAB may be depreciated on a tariff year wise average depreciation rate for aeronautical assets. The Authority proposes to accept the same (Refer para 276 above to 281 above).

(xvii) Operating Expenses and allocation mechanism – The Authority is conscious of the fact that the issue of efficient operating and maintenance costs only is salient in a price cap determination. Further, the allocation of these costs into aeronautical and non-aeronautical categories is specially important under a

shared till regulation as in the case of IGI Airport. In this light, the Authority would have ideally liked to have commissioned an independent study to help it assess the aspects of "efficient operating and maintenance costs" and their allocation between aeronautical and non-aeronautical heads. However, the Authority is conscious that in the current determination, only 2 years of the regulatory period are left. In this light, the Authority, presently, proposes to accept the forecasts made by DIAL, subject to the modification indicated above. However, the Authority may commission an independent study to benchmark the operating costs of IGI Airport New Delhi. If the opex (actual and forecast) proposed by DIAL are at variance with the independent assessment, the Authority will consider appropriately truing up the figures (Refer para 350 above).

(xviii) Manpower - DIAL had projected 1471 as the manpower requirement till 2013-14. Subsequently, the actual manpower has been certified as 1494. The Authority, however, proposes to adopt initial manpower projections in lieu with the principles of efficiency. (Refer para 333 and 346 above)

(xix) Interest on DF Loan - Assets funded out through DF have not been included in the RAB of DIAL for tariff determination purposes. Further, the debt raised by DIAL on securitization of DF has not been taken into consideration separately in the means of finance. Therefore, the cost of this debt is also not being allowed to be recovered through WACC. In view of this the Authority proposes to expense out the interest for the entire period of 01.03.2009 to 30.11.2011 as opex. (Refer para 339 above).

(xx) Collection Charges on DF - DIAL have also requested for defraying of collection charges paid by them to the airlines in respect of DF through OPEX. However, this request of DIAL does not appear to be acceptable because as per the provisions of Section 13 (1) (b) of the Act read with Section

22A of the AAI Act, 1994, the Authority's function in respect of DF is confined to determination of the rate/amount thereof. Further, the issue of collection, deposit etc., of DF are not within the purview of the Authority. Hence the Authority proposes not to accept the request for defraying the collection charges (Refer para 342 above).

(xxi) US Dollar Exchange Rate - DIAL have considered forex USD exchange for Rs.45.00 in its tariff application and had revised the same to an exchange rate of Rs.45.26 based on last 6 months average RBI reference rate in their submission dated 21.11.2011. The Authority proposes to have reference to RBI reference rate USD for latest 6 months, available till 25th November, 2011 which works out to Rs.46.824. In view of recent trend of sharp movements in the exchange rate, the Authority would review this aspect further and would use the latest rates (trends) as may be available to it at the stage of final determination (Refer para 343 above)

(xxii) Efficiency Factor – As already brought in the section on Operating Expenses and allocation mechanism In any Price Cap based regulation, improvement in efficiency is one of the most important elements. In the present case, however, DIAL have submitted that in terms of the principle of efficiency as laid down in Schedule 1 of SSA, only efficient costs are to be considered in the tariff building block while determining the target. Therefore, the target revenue itself incorporates the efficiency factor and no additional improvement factor should be imposed on DIAL. Evidently this submission of DIAL is premised upon an assumption that only the efficient costs have been proposed for inclusion. As per the Benchmarking study conducted by Leighfisher, which has been discussed in detail in preceding paras, DIAL's operating costs are amongst the lowest amongst the airports of similar size. Further, some of the operating costs, specifically the utility costs, are not in the control of DIAL in as much as the prices of these services

are decided by the independent regulators/ other entities. Though this does not take away from the fact that DIAL can exercise control over the consumption, in view of the Benchmarking study the arguments on consumption may not have greater salience. The Authority is conscious of the fact that the issue of efficient operating and maintenance costs only is salient in a price cap determination. Further, the allocation of these costs into aeronautical and non-aeronautical categories is specially important under a shared till regulation as in the case of IGI Airport. In this light, the Authority would have ideally liked to have commissioned an **independent study to help it assess the aspects of "efficient** operating and mainten**ance costs" and their allocation between** aeronautical and non-aeronautical heads. However, the Authority is conscious that in the current determination, only 2 years of the regulatory period are left. In this light, the Authority, presently, proposes to accept the forecasts made by DIAL, subject to the modification indicated above. However, the Authority may commission an independent study to benchmark the operating costs of IGI Airport New Delhi. If the opex (actual and forecast) proposed by DIAL are at variance with the independent assessment, the Authority will consider appropriately truing up the figures (Refer para 350 above).

(xxiii) Taxation - DIAL submitted that SSA requires that corporate tax pertaining to aeronautical earning be separately calculated and added as a building block to compute the final target revenue. Upon consideration of the matter and further analysis as contained hereinabove (Refer para 352 above) the Authority proposes to reckon the Corporate Tax on the basis of regulatory accounts.

(xxiv) DIAL further proposed to introduce a cute counter charge @ Rs. 500 per departing domestic flight over and above the Rs. 1500 per international flight already being charged. They have also requested that non-aeronautical revenue arising from

area admeasuring 8652 sq.mts (disallowed as per DF Order) may not be used for cross subsidy purpose.

DIAL have treated the CUTE Counter charges as Non-Aeronautical in nature. It is observed from the AAI Ground **Handling Regulations 2007, that "Passenger and Baggage Handling at the Airport Terminal" are treated as Ground** Handling Services under Para 1.2 of Schedule 2 of the regulations. Since Cute Counters are used for passenger and baggage handling at the Airport Terminal, the service so provided is a ground handling service, which is an aeronautical service. Further, the Cute Charges are apparently directly received by DIAL from the airlines in lieu of the service provided to them. It is, therefore, proposed to treat the revenue received from the Cute Counter charges as aeronautical revenue (Refer para 411 above).

Further, the Authority proposes not to accept the request made by DIAL to exclude the non-aeronautical revenue arising from the area admeasuring 8652 sq.mts (disallowed as per DF Order) for cross subsidy purpose. The revenue from the same are proposed to be considered for the purpose of cross subsidy (Refer para 360 above).

(xxv) **DIAL's forecasted total turnover of Car parking; Entry ticket** and Left Luggage facility revenue; Advertisement Revenues; Duty Free and Duty Paid Revenues; F&B and Lounge revenue; Radio Taxi; Foreign exchange concessionaires and Telecom, for FY2011-12, is based on an annualized turnover of 4 months (Dec, 2010 to Mar, 2011) and subsequently considered an escalation in revenues based on traffic growth and a spend factor on account of higher penetration. DIAL projected these revenues on the basis that this was the true reflection of future revenues for such services, as during this period all the 3 terminals including T3 were operational.

It is noted that while DIAL estimated revenues from above concessionaires, most of them were being carried out by JVC set up with equity participation of DIAL In view the observations made in para 372 above the Authority proposes to adopt the following approach:

(a) the non-aeronautical revenues for various revenue heads for 2008-09 to be considered as the base figure for forecasting the non-aeronautical revenues for FY 2009-10 and 2010-11, escalated by the historical passenger/ cargo growth rates plus a certain %age increase due to higher penetration as may be applicable (as proposed by DIAL) for those years;

(b) For 2011-12 to 2013-14, the base value of revenue arrived for 2010-11 to be projected based on the traffic growth plus a certain %age year on year increase due to penetration as per **DIAL's estimate.**

(xxvi) Into Plane Services (ITP) Revenue - DIAL have treated ITP Services as non-aeronautical services in its submissions. In this regard, it is observed that ITP services are aeronautical services in terms of Section 2(a) of the Act. However, in the subject case, DIAL do not provide the ITP services themselves, and these are provided by the concessionaires. DIAL receives certain part of the revenue received by the ITP service providers as a concession fee. Therefore, the concession revenue received by DIAL from the ITP service provider(s) may be treated as non-aeronautical revenue in the hands of DIAL. (Refer para 401 above)

(xxvii) Non Transfer Assets - DIAL have not included gross revenue from Non-Transfer Assets (***assets other than Aeronautical and Non Aeronautical***) towards cross-subsidization of aeronautical cost while determining the target revenue. In terms of the SSA, 30% of the gross revenue generated by DIAL from the Revenue Share Assets is to be used to subsidise the Target Revenue. The Revenue Share Assets defined in the SSA do not

include revenue from the Non Transfer Assets. Hence, the **Authority proposes to accept DIAL's submission.** (Refer para 378 to 382 above).

(xxviii) Treatment of Cargo, Ground Handling & Fuel throughput Revenues - DIAL have proposed an increase of 7% in FTC w.e.f. 01.04.2011 and have treated the revenue therefrom as aeronautical revenue subject to outcome of Appeal. Further, DIAL have treated revenue received from Cargo, Ground Handling and ITP services as non-aeronautical revenue. The Authority proposes to accept the same to the extent the services are not provided by DIAL. (Refer para 400 to 408 above).

(xxix) Bridge Mounted Equipment – DIAL have considered revenue from BME concessionaires as non-aeronautical revenue. The Authority proposes to accept the same. However, it considers the service as aeronautical service and proposes to advise the service provider accordingly. (Refer para 404 to 406 above)

(xxx) Inflight Kitchen Revenues- As regards the revenue received from Inflight Kitchen there does not seem to be any difficulty in recognizing the revenue received from in-flight kitchens as non-aeronautical revenue since there is nothing in the Act or the relevant agreements which would indicate otherwise (Refer para 407 above).

(xxxi) Increase in FTC w.e.f. 01.04.2011- DIAL have requested for an increase of 7% in the fuel throughput charges on the basis of their contractual arrangements. The issue of determination of FTC on the basis of contractual arrangements has been **considered in detail in the Authority's Order No.07/2010**-11 dated 04.11.2010. The Authority had therein made several observations against such an approach. However, the increases proposed therein were approved on an adhoc basis in the absence of a more appropriate alternative. Subsequently, it was expected that the users i.e., airlines

would suggest some viable alternatives. However, though the airlines had strongly resisted the approach suggested by the airports, they have not come up with any viable alternative approach till date. In this light, the Authority proposes to accept the proposal of DIAL. (Refer para 408 above)

(xxxii) Traffic Forecast - DIAL submitted that they had commissioned an independent study for forecasting traffic at the airport to Madras School of Economics (MSE). Keeping in view the independent review of the MSE forecasts by Prof. Bhanumurthy, NIPFP and the historical traffic movement for the Passenger, ATM and Cargo movement at IGI Airport, New Delhi, the Authority proposes to consider the 10-year CAGR for the period 2001-02 to 2010-11 for traffic forecast. The Authority has noted that historically, over a 10-year period, domestic passenger traffic at Delhi airport has grown at a average annual rate of 17.66% and international passenger tariff has grown at an average annual rate of 10.70%. The Authority proposes to consider these growth rates for the purpose of traffic forecast (Refer paras 413 to 422 above).

(xxxiii) Traffic Forecast Correction - DIAL have not proposed any Traffic Band for forecast correction. However, since it is proposed to use the 10 year CAGR figures instead of traffic forecasted by DIAL which are substantially higher than the DIAL projections, the Authority proposes to consider a symmetrical band of (+/-) 5% of the forecast percentages. (Refer para 423 above).

(xxxiv) Calculation of CPI –X - DIAL in their submission stated that ***"In addition to the value of 'X' determined by equating the NPV of the Target and the Actual revenues, CPI Inflation will be added to the tariff. Accordingly, it is understood that the regulator will give an allowance towards inflation (CPI) over and above the target revenue being submitted herewith based on actual CPI numbers."*** DIAL also submitted that they did not consider any inflationary increase and have assumed that

the regulator will adjust the charges annually based on the actual CPI data. DIAL have, subsequently, provided a 5 year forecast of CPI-IW at 7% per annum based on Survey of Professional Forecasters as published by RBI on its website. However, it is observed that based on the provisions in the SSA, the X Factor would accordingly need to be computed considering inflationary increases along with X factor. In view of the same, the Authority is of the opinion that the approach proposed by DIAL is not acceptable. (Refer paras 424 to 430 above)

(xxxv) Issue of 10% increase - This issue has been discussed in detail in the para 30 to 38 above. There is nothing on record, presently, to change the views earlier taken by the Authority. Further, as brought out in the section relating to sensitivity analysis, the draft determination is resulting in X factor of (-) 280.36%, which would result in a one-time increase of 287.36% (on account of CPI-X) in the airport charges on 1st February 2011, over and above the 10% increase (which DIAL received on 16th February 2009) in Base Airport Charges. Alternatively, considering an equated increase for each of the years in the regulatory period, the X factor becomes (-) 71.95% which would result in increase of 78.95% (on account of CPI-X) in the airport charges on 1st February 2011, over and above the 10% increase (which DIAL received on 16th February 2009) in Base Airport Charges. In view of the proposed increase in tariff, the Authority further feels that the issue of allowing a 10% year-on-year increase in Base Airport Charges, as claimed by DIAL, has become an issue of academic interest only (Refer para 433 above).

(xxxvi) Tariff Structure/ Rate Card – DIAL have, vide their submissions dated 04.10.2011, 21.10.2011 and 25.11.2011, submitted their rate card in respect of the pricing strategy for aeronautical services. The indicative rate card w.e.f 01.02.2012, has been submitted by DIAL vide their final

submission dated 25.11.2011. The indicative tariff, submitted by DIAL, would undergo changes due to the change in assumptions and change in the various figures proposed to be adopted by the Authority including the Traffic Forecast, RAB, Hypothetical RAB etc. SSA contemplates that DIAL would be free to impose charges within the overall price cap subject to conditions stated therein. In view of this, the Authority proposes , for the present, to place the rate card proposed by DIAL for stakeholder consultation with the caveat that the charges proposed would be, in-principle, reduced proportionately in line with the final decision of the Authority in respect of price cap and disposal of objections, if any, that may be received from stakeholders on the grounds mentioned in the said Principle 10 of the SSA. (Refer paras 434 to 438 above)

(xxxvii) Discount on all the domestic scheduled landings - DIAL have proposed a non discriminatory 2% discount on all the domestic scheduled landings in case the landing charges are received by them within 15 days credit period. However, it has been a stated position of the Authority that discounts or rebates are commercial decisions of the airport operator. Accordingly Authority proposes not to permit any adjustment on account of under recoveries due to discounts (Refer para 439 above).

(xxxviii) Collection charges on PSF and UDF - The Authority has noted that DIAL has proposed collection charges on both PSF and UDF. The Authority proposes to consider and decide the issue of the proposed collection charges at the stage of final determination keeping in view the stakeholder submissions (Refer para 440 to 441 above).

(xxxix) Quality of Service - In the scheme of the Act, the Authority has two mandates relating to quality of service– first, to consider the quality of service for determination of tariff and secondly, to monitor the set performance standards relating to quality of service. These are two distinct functions - one

relates to determination of tariff whereas another relates to monitoring of set performance standards. Chapter IX of OMDA deals with Service Quality requirements. It prescribes both Objective and Subjective Service Quality requirements. The penalties contemplated in the concession agreements are contractual requirements whereas fixation of tariff commensurate with the quality of service is a statutory requirement. Hence, it is proposed that to follow the rebate mechanism as indicated in Order No.13/2010-11 dated 12.01.2011 and the Guidelines dated 28.02.2011. (Refer para 442 to 457 above).

(xl) True up mechanism - The present multi-year determination of tariffs for DIAL will potentially result in tariff revision only over the remaining two financial years i.e. 2012-13 and 2013-14 in over this Control Period. In view of availability of actual information on outturn of identified elements and practicability of factoring corrections (adjustments) in tariffs over the remaining term of the present Control Period, the Authority proposes to provide for all corrections (adjustments) to tariffs on account of impact of variations in factors mentioned above while reviewing and determining multi-year tariffs for the next Control Period. (Refer paras 458 to 466 above)

468. The following table compares some important parameters and their estimates – as proposed by DIAL vis-à-vis as proposed by the Authority, and the treatment for these in the determination of aeronautical tariff :

<table>
<tr><th>Head</th><th>As proposed by DIAL</th><th>As proposed by Authority</th><th>Impact on X Factor on account of change in individual parameters - resulting in reduction of X factor of (-)774.30% as per DIAL’s base model</th></tr>
<tr><td>1. Hypothetical RAB</td><td>1,119 Crores</td><td>467 Crores</td><td>-695.20%</td></tr>
<tr><td>2. Return on Equity</td><td>24%</td><td>16%</td><td>-598.07%</td></tr>
<tr><td>3. Traffic Forecast</td><td>
<table>
<tr><td></td><td colspan="4">Pax Growth (%)</td></tr>
<tr><td>Year</td><td>Dom</td><td>Intl</td><td colspan="2">Tot</td></tr>
<tr><td>2011-12</td><td>9.4</td><td>8.2</td><td colspan="2">9.0</td></tr>
<tr><td>2012-13</td><td>10.2</td><td>8.9</td><td colspan="2">9.8</td></tr>
<tr><td>2013-14</td><td>8.9</td><td>7.8</td><td colspan="2">8.5</td></tr>
<tr><td></td><td colspan="4">ATM Growth (%)</td></tr>
<tr><td></td><td>Dom</td><td>Intl</td><td colspan="2">Tot</td></tr>
<tr><td>2011-12</td><td>8.2</td><td>2.4</td><td colspan="2">6.8</td></tr>
<tr><td>2012-13</td><td>8.9</td><td>8.0</td><td colspan="2">8.7</td></tr>
<tr><td>2013-14</td><td>7.7</td><td>7.0</td><td colspan="2">7.6</td></tr>
<tr><td></td><td colspan="4">Cargo Growth (%)</td></tr>
<tr><td></td><td>Exp</td><td>Imp</td><td>Dom</td><td>Tot</td></tr>
<tr><td>2011-12</td><td>5.75</td><td>10.15</td><td>10.34</td><td>8.65</td></tr>
<tr><td>2012-13</td><td>6.83</td><td>11.59</td><td>13.62</td><td>10.66</td></tr>
<tr><td>2013-14</td><td>6.22</td><td>10.10</td><td>11.51</td><td>9.31</td></tr>
</table>
</td><td>
<table>
<tr><td></td><td colspan="4">Pax Growth (%)</td></tr>
<tr><td>Year</td><td>Dom</td><td>Intl</td><td colspan="2">Tot</td></tr>
<tr><td>2011-12</td><td>17.66</td><td>10.70</td><td colspan="2">15.48</td></tr>
<tr><td>2012-13</td><td>17.66</td><td>10.70</td><td colspan="2">15.57</td></tr>
<tr><td>2013-14</td><td>17.66</td><td>10.70</td><td colspan="2">15.66</td></tr>
<tr><td></td><td colspan="4">ATM Growth (%)</td></tr>
<tr><td></td><td>Dom</td><td>Intl</td><td colspan="2">Tot</td></tr>
<tr><td>2011-12</td><td>13.38</td><td>11.52</td><td colspan="2">12.92</td></tr>
<tr><td>2012-13</td><td>13.38</td><td>11.52</td><td colspan="2">12.92</td></tr>
<tr><td>2013-14</td><td>13.38</td><td>11.52</td><td colspan="2">12.93</td></tr>
<tr><td></td><td colspan="4">Cargo Growth (%)</td></tr>
<tr><td></td><td>Exp</td><td>Imp</td><td>Dom</td><td>Tot</td></tr>
<tr><td>2011-12</td><td>6.05</td><td>15.66</td><td>13.86</td><td>11.61</td></tr>
<tr><td>2012-13</td><td>6.05</td><td>15.66</td><td>13.86</td><td>11.61</td></tr>
<tr><td>2013-14</td><td>6.05</td><td>15.66</td><td>13.86</td><td>11.61</td></tr>
</table>
</td><td>-662.64%</td></tr>
<tr><td>4. Return of refundable interest-free security deposits, amounting</td><td>24% (considered at Cost of Equity)</td><td>0% (considered at Actuals)</td><td>-589.82%</td></tr>
</table>

Head	As proposed by DIAL	As proposed by Authority	Impact on X Factor on account of change in individual parameters - resulting in reduction of X factor of (-)774.30% as per DIAL's base model
to Rs.1471.51 crores, repayable by DIAL after 57 years			
5. X Factor	To determine X Factor and give Inflation separately year-on-year	As per the Authority's interpretation of the provisions of SSA, X Factor computed considering inflationary increases along with X factor	-693.12%

In addition to the above, there are other parameters that are indicated in this Consultation Paper at appropriate places.

469. Based on the assumptions discussed, the target revenues for the 5 years in the regulatory period have been reworked. The comparison of the target revenues projected by DIAL and reworked by the Authority are shown in the following table. The table indicates the Net Target Revenue over the 5 year control period so as to give a RoE of 16% and appropriate cost of debt. This does not correspond to the actual revenues received during the FY 2009-10, 2010-11 and 2011-12 which were lower than the Target Revenue for those years. Losses in the first three years of the control period are then recouped in the last 2 years. The required (projected) revenues are thus given in para 470 below.

Comparison of the target revenues over the first regulatory period projected by DIAL and reworked by the Authority

Building Blocks-Aeronautical	**2009-10**		**2010-11**		**2011-12**		**2012-13**		**2013-14**		**Total** (Rs in crores)	
Projections by	Authority	DIAL	Authority	DIAL	Authority	DIAL	Authority	DIAL	Authority	DIAL	Authority	DIAL
Return on Capital Employed	269	541	608	1145	872	1594	803	1458	769	1427	3322	6166
Total Expenses	567	321	631	486	860	721	828	745	955	870	3841	3143
Depreciation & Amortisation	121	144	251	282	375	438	363	423	364	450	1474	1737
Taxes	-	-	-	-	-	-	205	645	305	686	510	1331
Gross Target Revenue	**958**	**1006**	**1,491**	**1915**	**2,108**	**2,754**	**2,198**	**3,272**	**2,393**	**3,433**	**9,147**	**12,377**
Cross Subsidisation	148	181	206	180	264	213	328	232	404	250	1,351	1055
Net Target Revenue	**809**	**825**	**1,285**	**1732**	**1,844**	**2,541**	**1,870**	**3,040**	**1,989**	**3,184**	**7,796**	**11,322**

470. As per the SSA, the X factor is the average equalization factor of the discounted target and projected aeronautical revenues over the regulatory period. The X factor has been calculated as a percentage increase as of 01.02.2012 by discounting the above target revenue with the WACC. This X factor works out to a one-time increase of (-)280.36% in the aeronautical tariff as compared to the increase of (-)774.30% in DIAL's Base Financial Model submission. Thereafter the increases on 01.04.2012 and 01.04.2013 shall be 7% equal to CPI.

Table showing X Factor as determined by DIAL (Upfront increase w.e.f 01.02.2012)

Determination of 'X'	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Total**
Net Target Aero Revenue	825	1,732	2,541	3,040	3,184	11,322
Actual/Projected Aero Revenue	502	565	1,247	4,860	5,240	12,415
Discounting Factor @ 16.16%	1.32	1.13	0.97	0.84	0.72	
Net Target Revenues (NPV)	1087	1,965	2,475	2,549	2,298	10,374
Actual/Projected Revenues (NPV)	662	641	1214	4,074	3,782	10,374
Increase Percentage 'X'	**-774.30%**					

Table showing X Factor as determined by the Authority (Upfront increase w.e.f 01.02.2012)

Determination of 'X'	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Total**
Net Target Aero Revenue	809	1,284	1,844	1,870	1,989	7,796
Actual/Projected Aero Revenue	648	586	943	2,714	3,322	8,223
Discounting Factor @ 10.33%	1.20	1.09	0.98	0.89	0.81	
Net Target Revenues (NPV)	970	1,395	1,813	1,666	1,606	7,450
Actual/Projected Revenues (NPV)	777	637	927	2,418	2,691	7,450
Increase Percentage 'X'	**-280.36%**					

471. The Authority has attempted to smoothen the price path. It also recognizes that it may not be feasible to effect the first tariff increase w.e.f 01.02.2012. Hence the Authority proposes to effect the increase in two equated annual increases w.e.f 01.04.2012 and 01.04.2013.

472. If the tariff increase date is shifted from 01.02.2012 to 01.04.2012 (i.e., only the existing tariffs are available for the entire FY 2011-12), the equated increase for the remaining two years in the control period i.e., 2012-13 and 2013-14 works out to an X factor increase of (-) 148% on 01.04.2012 and 01.04.2013. In such a case the projected aeronautical revenues would be as per the following table:

Table showing X Factor as determined by the Authority (Annual equated increase w.e.f 01.04.2012) Rs. In crores

Determination of 'X'	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Net Target Aero Revenue	809	1,284	1,844	1,673	2,250
Actual/Projected Aero Revenue	648	586	692	1,755	4,738
Discounting Factor @ 10.33%	1.22	1.10	1.00	0.91	0.82
Net Target Revenues (NPV)	985	1,417	1,844	1,516	1,849
Actual/Projected Revenues (NPV)	789	647	692	1,590	3,892
Increase Percentage 'X'		**-148.00%**			

473. Based on the Authority's proposed approach of equated annual increase on 01.04.2012 and 01.04.2013, the passenger yield from FY 2011-12 to FY 2013-14 is presented hereunder:

Year	Actual/Projected Aero Revenue (Rs in crores)	Pax in Million	Yield per pax (Rs.)
2011-12	692	34.27	202
2012-13	1755	39.60	443
2013-14	4738	45.80	1034

474. In view of Authority's observations on the assumptions and facts of the case, X Factor after considering change in assumptions works out to (-) 280.36% (increase w.e.f. 01.02.2012) and (-)334.63% (increase w.e.f. 01.04.2012).The details are as under:

	X Factor as per DIAL submission		X Factor after considering change in assumptions (increase w.e.f 01.02.2012)		X Factor after considering change in assumptions (increase w.e.f 01.04.2012)	
Cummulative Impact	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs	Upfront Increase in tariffs	Equated increase in tariffs
	-774.30%	-137.94%	-280.36%	-71.95%	-334.63%	-148.00%

475. In accordance with the provisions of Section 13(4) of the AERA Act 2008, the proposal contained in the Section – Summary of Tentative views (para 467 above) read with the relevant discussion in the other Sections of the

paper, is hereby put forth for stakeholder consultation. To assist the stakeholders in making their submissions in a meaningful and constructive manner, necessary documents are enclosed (**Annexure-I to VIII**). For removal of doubts, it is clarified that the contents of this Consultation Paper may not be construed as any Order or Direction of this Authority. The Authority shall pass an Order, in the matter, only after considering the submissions of the stakeholders in response hereto and by making such decision fully documented and explained in terms of the provisions of the Act.

476. The Authority welcomes written evidence-based feedback, comments and suggestions from stakeholders on the proposal made in para 467 above, latest by 24.01.2012 at the following address:

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Yashwant S. Bhave
Chairperson

Consultation Paper No. 32-2011-12- Annexures I-II

Consultation Paper No. 32-2011-12- Annexures III-VIII

Consultation Paper No. 32-2011-12 Appendix