

MIAL/CEO/020

7th June, 2019

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

Sir,

Subject : Multi Year Tariff Proposal (MYTP) for CSMI Airport, Mumbai for the third control period

Please find enclosed the Multi Year Tariff Proposal (MYTP) for Chhatrapati Shivaji Maharaj International Airport (CSMIA), Mumbai for the third control period for consideration and approval of the Authority.

Since some of the information contained in this proposal is commercially sensitive and not in public domain, the Authority is requested to kindly redact such information during consultation process. MIAL will intimate details of such information in due course.

We shall be pleased to provide any further information that Hon'ble Authority may require in this regard.

Yours Sincerely,
For Mumbai International Airport Limited


{R K Jain}
Chief Executive Officer

Encl.: as above



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Mumbai International Airport Limited

Multi Year Tariff Proposal

FY 20 to FY 24



(SANDIV Bhatnagar)

Vice President (Regulatory
& Taxation)

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1. Disclaimer

This proposal is being filed without prejudice against the contentions and submissions of MIAL in the appeals filed before the relevant Appellant Authorities. The issues raised in the Appeals and subsequent decisions by the Appellate Authorities may have implications on the present proposal. Suitable changes will have to be made, *inter alia* in the proposal based on outcome of these appeals.



2. Glossary

Glossary of abbreviations used in this MYTP is as follows:

AAI	:	Airports Authority of India
AERA/Authority	:	Airports Economic Regulatory Authority
CAGR	:	Compounded Annual Growth Rate
CPI	:	Consumer Price Index
CNS/ATM	:	Communication, Navigation and Surveillance/ Air Traffic Management
CSIA/CSMIA	:	Chhatrapati Shivaji Maharaj International Airport
CWIP	:	Capital Work in Progress
DF	:	Development Fee
DIAL	:	Delhi International Airport Limited
FCP	:	First Control Period
FRoR	:	Fair Rate of Return
GoI	:	Government of India
HRB/HRAB	:	Hypothetical Regulatory Asset Base
IATA	:	International Air Transport Association
ICAO	:	International Civil Aviation Organisation
IGIA	:	Indira Gandhi International Airport
ISP	:	Independent Service Provider
JVC	:	Joint Venture Company
MIAL	:	Mumbai International Airport Limited
MMRDA	:	Mumbai Metropolitan Region Development Authority
MoCA	:	Ministry of Civil Aviation
MoU	:	Memorandum of Understanding
MYTP	:	Multi Year Tariff Proposal
O & M	:	Operation and Maintenance Cost



OMDA	:	Operation, Management and Development Agreement
PSF (SC)	:	Passenger Service Fee (Security Component)
RAB/RB	:	Regulatory Asset Base
RSD	:	Refundable Security Deposit
SCP	:	Second Control Period
SSA	:	State Support Agreement
TCP	:	Third Control Period
TDSAT	:	Telecom Disputes Settlement & Appellate Tribunal
TR	:	Target Revenue
TWY	:	Taxiway
WACC	:	Weighted Average Cost of Capital



3. Background

This MYTP is being submitted for the TCP for FY 20 to FY 24. Authority had finalised MYTP for the FCP and SCP vide its Order no. 32/2012-13 & 13/2016-17 dated 15.01.2013 and 23.09.2016 respectively. Certain claims of MIAL were not accepted by the Authority and are at different stages of litigation either before the Appellate Authority or Hon'ble Supreme Court. Certain claims made by MIAL were allowed or remanded back by the Appellate Authority and are to be considered by the Authority. Table No. 1 below summarises such major disputes.

Table 1: Summary of major disputes

SN	Matter Disputed	Issue in		Status	Treatment in TCP MYTP
		FCP	SCP		
1	Cost of Equity	Yes	Yes	Pending before the Hon'ble Supreme Court	Considered at 23% supported by report from CARE Valuations
2	Cost of RSD	No	Yes	Remanded back to the Authority by the Appellate Tribunal	Considered at the Cost of Equity
3	Hypothetical Regulatory Asset Base (HRAB)	Yes	Yes	Pending before the Hon'ble Supreme Court	Computed as per Single Till Approach, being the then prevailing approach
4	Annual Fee : Treatment for tax computation	Yes	Yes	Pending before the Hon'ble Supreme Court	Not considered as expense while computing Tax in terms of SSA
5	'S': Treatment for tax computation	Yes	Yes	Remanded back to the Authority by the Appellate Tribunal	Treated as Aeronautical Revenue in calculation of tax



SN	Matter Disputed	Issue in		Status	Treatment in TCP MYTP
		FCP	SCP		
6	Nature of Fuel Throughput Charges (FTC) and Into Plane Revenue (ITP)	Yes	Yes	Considered as Aeronautical Revenue by the Appellate Tribunal. Appeal pending before the Hon'ble Supreme Court.	Considered as Non-Aeronautical Revenue
7	Treatment of Upfront Fees for computation of WACC	Yes	Yes	Appellate Tribunal allowed it to be included in Equity while computing WACC	Included in Equity while computing WACC
8	DF Funded assets deemed to be completed in FY 2013-14 instead of FY 2015-16	Yes	Yes	Pending before the Appellate Tribunal	Considered completed in FY 2015-16
9	MAT Credit excluded from Reserves & Surplus for computation of WACC	No	Yes	Pending before the Appellate Tribunal	Included in Reserves & Surplus
10	Aeronautical assets allocation ratio considered at 83.97% instead of 86.27%	No	Yes	Pending before the Appellate Tribunal	Considered aeronautical assets allocation ratio at 86.27%



4. Determination of Target Revenue

4.1. Regulatory Base (RB)

First building block for determination of tariff is RB (including HRAB) which has to be calculated as per the provisions of Schedule 1 of SSA. For the sake of brevity, provisions of SSA are not reproduced.

The following section provides computation of the RB and the HRAB for the TCP

4.1.1. Capital Expenditure

RB represents Asset Base and includes the following:

- a. Project Cost (balance incurred in SCP)
- b. Projects in Second Control Period
- c. Second Control Period Operational Capex
- d. Third Control Period Capex

a. Project Cost

The Authority while finalizing aeronautical tariff for SCP vide its order no 13/2016-17 dated 23.09.2016, had finalised project cost at Rs. 12369.65 Crs. out of which, the Authority had deferred capital expenditure of Rs. 381.34 Crs to be reconsidered on the basis of actual incurrence while determining the tariff for the TCP .



Summary of incurrence till 31.03.2019 of Rs. 12,201 Crs which includes incurrence towards capital expenditure deferred by the Authority, is as per Table No. 2:

Table 2: Summary of incurrence till 31.03.2019

Particulars	Rs./Crs.		
	FCP	Deferred	Total
Project Cost approved by the Authority	11,988	381	12,369
Less: Projects to be excluded from revised Project costs	(27)	(12)	(39)
Less : Projects included in the TCP (Refer Table No.3)	(114)	(139)	(253)
Revised Project Cost	11,847	230	12,077
Incurrence till date	11,971	230	12,201
Incurrence claimed	11,847	230	12,077
Incurrence not claimed – being net overrun	124	-	124

Table 3: Details of projects now considered in the TCP which were approved by the Authority in the FCP

SN	Project	(Rs/ Crs.)	
		Amount	Revised Cost in TCP
1	NAD Colony	107	208
2	Relocation of Air India Facilities	60	16
3	Parallel Taxiway to Runway End 14	57	Project merged with other projects
4	GSE Maintenance Facilities	15	23
5	New ATC Tower & Equipment	14	10
	Total	253	257



b. Projects in Second Control Period

Status of projects considered by the Authority in its Order no.13/ 2016-17 is as per Table No. 4

Table 4: Projects in SCP

Rs. /Crs.				
SN	Project	Project cost approved by the Authority	Incurrence till 31.03.2019	Remarks
1	Taxiway 'M' (Only Slum Rehab cost)	157.16	-	Project could not be undertaken due to non-availability of land. Now, considered as part of RB in TCP
2	Air India Code 'C' Hangar	53.10	53.10	-
3	South East Pier (between Grid RE 29 – PE12)	408.50	400.21	Savings of Rs. 8.29 Crs.
4	Meteorological Farm	12.67	-	Project could not be undertaken due to non-availability of land. Now, considered as part of RB in TCP.
5	Soft cost (IDC & Preoperative)	122.29	28.60	Due to deferment of projects now considered in TCP and use of internal accruals for completing projects in SCP
	TOTAL	753.72	481.91	



c. Second Control Period Operational Capex

As against the operational capex for SCP aggregating Rs. 1448 Crs. claimed by MIAL, the Authority had allowed operational capex aggregating Rs.857 Crs. only in its Order no.13 / 2016-17. The Authority had decided to consider capex incurred while truing up the RB while determination of aeronautical tariffs for the TCP. Summary of Operational Capex incurred during SCP is as per Table No. 5

Table 5: Summary of Operational Capex incurred during the SCP

Particulars	(Rs./Crs.)
Capex as approved by the Authority	857
+ Change in scope / overrun (Refer Table No. 6)	173
- Savings	(42)
- considered in TCP (an amount of Rs. 30 Crs. has been incurred on these projects till Mar-19) (Refer Table No. 7)	(578)
- Dropped (Refer Table No. 8)	(20)
+ Operational capex in addition to capex approved by the Authority in the Order no. 13/2016-17 (Refer Table No. 9)	711
Total Operational Capex during SCP	1,101



Table 6: Change in scope / overrun in Operational Capex for SCP

SN	Projects	Rs. / Crs.		
		Project Cost Approved by the Authority	Actual cost	Variance
1	Mithi River retaining wall	20	106	86
2	Reconstruction of RET N8 & provision of standby RET	35	63	28
3	Passenger boarding bridges – T2 – Code F	25	44	19
4	Additional baggage reclaim carousals at T2	20	31	11
5	Structure of Approach Radar	3	11	8
6	Construction of TWY S7 & R Junction	11	18	7
7	New T2-Trolleys/ Trolley Scooter	7	12	5
8	PIDS protection / ACS Systems	6	10	4
9	Miscellaneous	33	38	5
Total		160	333	173



Table 7: Operational capex of SCP to be undertaken in TCP

Rs. In Crs.					
SN	Projects	Approved by the Authority	Incurrence till 31.03.2019	Balance	Revised Cost
1	Tunnel under Runway 14/32	365	-	365	401
2	Construction of new RET 14/32 – E6	69	5	64	29
3	Rescue & Fire Fighting Facilities	61	-	61	50 (Enabling cost of Taxiway M)
4	Construction of compound wall – 15 Km.	31	8	23	17
5	Crash Fire Tenders	25	10	15	38
6	Provision of VDGS for C D, L Aprons	5	-	5	20
7	Airport Sweeper/Scrubber	9	4	5	8
8	New T2-Tensa Barrier/ Tensa Top/ Standies	5	1	4	2
9	Marking machine	5	2	3	5
10	T1 (Queue Manager/ Standalone AC/ View Cutter Screen)	3	-	3	5
	Total	578	30	548	575



Table 8: Operational capex of SCP dropped

SN	Project	Rs. / Crs.
		Approved by the Authority
1	CISF Family Accommodation at Chakala	9
2	Grooving on Runway 32 rigid surface	8
3	Medical Equipment / Wheel Chair	3
	Total	20

Table 9: Operational Capex incurred in addition to operational capex approved by the Authority for SCP

SN	Projects	Rs. / Crs.
1	Preservation and Rehabilitation RWY	155
2	Upgradation & Strengthening of Taxiway N and N1 – Civil work	156
3	Taxiway A3 realignment Stage 2	33
6	Upgradation and Strengthening of Taxiways E5-P	43
8	Electrical Work for parallel C Taxiway East & South East	8
9	Construction Taxiway P (PAPA) – Overlay Works	7
10	Trolley Elevators T2	6
11	T2 Imported Security Screening Machines-Smith	5
13	Upgradation & Strengthening of Taxiways Apron A-7	5
14	UPS and Batteries	5
16	Others	288
	Total	711



d. Third Control Period Capital Expenditure

Capital Expenditure of Rs. 4,954 Crs. to be undertaken in the TCP also include capex towards projects pending to be completed out of the previous control periods (already approved by the Authority) and assets to be capitalised out of Closing CWIP as on 31.03.2019 of Rs. 145.38 Crs. Summary of capital expenditure to be incurred during the TCP is as per Table No. 10.

Table 10: Summary of Capex to be incurred in TCP (excluding land)

						Rs. / Crs.
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24	Total
Total planned capex	694	1,530	1,386	1,007	337	4,954
Aero	691	1,484	1,315	941	334	4,765
Non-Aero	3	46	71	66	3	189
Capitalisation	559	1,057	536	2,279	334	4,765

Provisions of SSA & OMDA regarding stakeholder consultation are being complied with.

Refer the MYTP financial model sheet "Capex Projections" for list of capex considered for TCP.



4.1.2. Computation of Hypothetical Regulatory Asset Base [HRAB or HRB]

Since CSMIA is a brownfield airport where on taking over the airport, no asset value was transferred to JVC, asset base is to be derived based on prevailing tariff and revenues which is Hypothetical Regulatory Asset Base (HRAB or HRB). HRAB is to be determined pursuant to provisions of Schedule 1 of SSA which are:

"RB₀ (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."

HRAB is to be calculated as on 01.04.2009 (commencement of FCP) based on prevailing tariff and revenues of FY 09.

The Authority derived HRAB at Rs.966.03 Crs. as per Table No. 11 below:

Table 11 : Calculation of Hypothetical Regulatory Base in the Order-Table No. 31 of Order No. 32

Components of Hypothetical RAB	(Rs. / Crs.)
Aeronautical Revenue [A]	445.1
Non-aeronautical Revenue [B]	-
O & M Expenditure pertaining to Aeronautical Services [C]	334.52
Tax pertaining to Aeronautical services [D]	0
A+B-(C+D)	110.58
WACC [E]	11.45%
Hypothetical Regulatory Base $(A+30\%*B - (C+D))/E$	966.03



Calculation of HRAB by the Authority implies that entire aeronautical revenue was without any cross subsidisation, while prevailing tariff was based on single till mechanism. Hence, the entire revenue should have been considered for the purpose of calculation of HRAB because aeronautical revenue was understated to the extent of non-aeronautical revenue because of 100% cross subsidisation under single till. The fact that single till mechanism was prevailing was confirmed by AAI while submitting its comments on White Paper No. 1/ 2009-10 dated 22.12.2009 issued by the Authority. Excerpts from AAI submissions are reproduced below.

"Tariff Fixation in AAI

In AAI, the tariff for airport charges (Landing, Parking, Housing) is being fixed on 'Single Till' basis with the approval of the GoI so far. For the purpose of fixation of tariff, the total revenue and expenditure of AAI as a whole are taken into consideration (i.e., revenue and expenditure of all AAI airports are clubbed together and brought under one basket and tariff for the gaps is determined accordingly after taking into considering reasonable Rate of Return."

Further AAI vide its letter no. AAI/CHQ/Tariff/Misc./2017/343 dated 18.06.2018 (Annexure 1) reconfirmed the use of the entire aeronautical revenue plus contribution from non-aeronautical revenues towards the cost of providing the airport service and its ancillary services, including appropriate amounts for cost of capital and depreciation of assets as well as the costs of maintenance, operation, management and administration.

In light of above, the correct computation of HRAB would involve considering the 100% of non-aeronautical income of FY 09, defraying the aeronautical charges with the aeronautical revenues of FY 09.

As an example, if Aeronautical revenue is A and Non- Aeronautical revenue is B then, Aeronautical Revenue A is subsidised to the extent of B and without this subsidisation Aeronautical revenue would have been $(A + B)$. In such case, HRAB would have been $(A + B - \text{Expenses \{Aero \& Non- Aero\} - Tax}) / WACC$



During the course of arguments, MIAL raised this issue before the Hon'ble TDSAT and argued that in terms of the manner stated for computation of HRAB, under RB₀ (ii) in Schedule 1 of SSA, the entire revenue (A + B) for the year preceding the date of computation must be taken into account and had also placed certain documents issued by AAI in order to substantiate the said argument. During the hearing on 10.08.2018, the Authority had submitted before the Hon'ble TDSAT, that since new documents have been submitted, which were not there at the time of consultations held earlier, matter could be remanded to the Authority for a fresh consultation on the said aspect. Hence, it is established that the Authority during the course of arguments in TDSAT was convinced that entire matter of determination of HRAB needs a relook.

The computation of HRAB considering aero tariff having been fixed on single till basis as against computation by the Authority in Order no. 32 of 2012-13 dated 15.01.2013 is as follows:

Table 12: Computation of HRAB

Particulars	Rs. / Crs.	
	Actual FY 09	As per Order no. 32 of 2012-13
Revenues		
Aeronautical Revenues	375.30	445.10
Non Aeronautical Revenues	579.80	-
Derived Aeronautical Revenue (A)	955.10	445.10
Expenditure		
Aeronautical Expenditure	(334.52)	(334.52)
Non-aeronautical expenditure	(46.03)	
Total Expenditure (B)	(380.55)	(334.52)
Income Tax – Current Tax (C)	(19.50)	
Amount to be capitalised (D= A-B-C)	555.05	110.58
RAB capitalised (E = D ÷ WACC for FCP i.e. 11.45%)	4,847.60	966.03
Less: Non-aero assets (based on allocation ratio of 10.08%) (E x 10.08%) (F)	488.64	-
HRAB (E-F)	4,358.96	966.03

Notes:

1. FTC of Rs. 69.80 Crs. is considered as non-aeronautical revenue
2. Resultant RAB arrived at E has been reduced by 10.08% being the Non-aero assets based on allocation ratio as per Table no.6 of Order dated 15.1.2013.



It would not be out of place to mention that by considering aeronautical revenue of Rs. 445.10 Crs. only while computing HRAB of Rs.966.03 Crs. The Authority has in fact, assumed the presence of Dual Till mechanism, which has never been recognised by the Authority itself.

Rationale for HRAB of Rs. 4,359 Crs

The rationale for claiming HRAB of Rs.4359 Crs. is summarized below:

i. In simple terms, MIAL states that:

- a. The full revenue stream for the year minus one (FY 2008-09), prior to the first year of the first control period, being the year for the opening HRAB (FY 2009-10), is liable to be included as the revenue base to calculate the HRAB.

This is so because, the SSA dated 26.04.2006 in Schedule 1 regarding Principles of Tariff Fixation specifically provides for such reference to year minus one and the inclusion of that year's revenue for the computation of HRAB. For the sake of brevity we are not reproducing the provisions of Schedule 1 to SSA, which elaborates the calculation of the aeronautical charges and defines RB_0 as well.

- b. The self-evident reason as to why the SSA contained this clause is because the first year of the first control period does not have any base to start with. Unless and until base is taken, there would be no basis to commence calculation of year one of the first control period which precisely is what HRAB is.
- c. It is common ground that in the real world, Airports, Aeronautical Revenue, Non -Aeronautical Revenue and ground level operations, started well before the establishment of the AERA on 12.05.2009.



- d. Equally, the AERA Act, 2008 which provides guidance and criteria for evaluation of regulatory basis and tariff, came into operation w.e.f. 01.01.2009.
 - e. It was to take into account the operational realities and the historical figures existing as on 01.01.2009, that, inter-alia, tariff determination mandatorily required under Section 13(1)(a) (vi) of the AERA Act, 2008, the need to take "*into consideration*".... (vi) *the concession offered by the Central Government in any agreement or memorandum of understanding or otherwise;*"
 - f. Even, Section 13(1)(a)(vii) of the Act is very relevant for the present purposes. *It reads as under "... (vii) any other factor which may be relevant for the purposes of this Act".*
 - g. It is, thus, a statutory mandate for the regulatory authority not to ignore relevant factors and a pre-existing operative contract inter-parties, can hardly be considered an irrelevant factor.
2. In this regard, prior to AERA coming into existence, methodology for determination of tariff was as below:
- a. Prior to 2006, the tariff was fixed by the Ministry of Civil Aviation (MoCA), broadly by trying to cover the costs and provide some reasonable rate of return, after inviting inputs from the relevant stakeholders. There was neither a statutory authority nor any regulator in existence. Equally, there was no contractual guidance in existence.
 - b. The SSA, qua MIAL came into effect on 26.04.2006 and the OMDA on 04.04.2006. Apart from Schedule 1 of SSA quoted in para 1 a. above, clauses 3.1.1, 3.1.2 and 3.1.3 are equally relevant, which for the sake of brevity are not being reproduced.



- c. Schedule 8 to SSA (Base Airport Charges), laid down the initial aeronautical charges to be charged at CSML Airport, which were the ones fixed by MoCA in 2001 when CSMIA was under AAI.
- d. The aforesaid clauses unambiguously demonstrate that the tariff fixation was to be done specifically with regard to the contractual clauses mentioned in such clauses referred.
- e. It was open to the legislature to dilute, derogate or modify this contractual mandate, both when the legislation came into effect in 2009 and when the regulatory authorities were established in 2009, on the contrary it chose to do the exact opposite. Far from diluting or derogating from the SSA, they chose to explicitly re-affirm it. See above referred clauses and Section 13(1)(a)(vi) and (vii) of the Act.
- f. The MoCA practice of fixing tariff continued right upto 2009, despite the coming into play of the contractual provisions under the SSA. Clause 3.1.1 of the SSA itself contemplated that a regulatory authority would be set up and that the principles as enumerated in the SSA Schedule 1, would be applied by that regulatory authority for determination of tariff.
- g. As far as HRAB is concerned, far from being inconsistent with the SSA, the only methodology of calculating HRAB, which may be treated for the first-year inception period post operation of the Act and the Regulatory Authority, is to adopt the reality operating prior to the coming into force of the Act and the Regulatory Authority. The only way in which both the contractual mandate of the SSA (Clauses 3.1.1, 3.1.2, 3.1.3 and Schedule 1- Principles of tariff fixation) as also statutory mandate of Section 13 (1)(a)(vi) and (vii) of the Act, could be fulfilled and implemented, if it would take into account **the entire revenues from the immediately preceding year**, being the year minus one for computation of HRAB. i.e. FY 2008-09. Practically speaking, neither AERA nor the statute could have been conceived of as operating on a *tabula rasa*, in view of facts and figure of revenue available for



immediately preceding year prior to HRAB. Ignoring these figures, would involve an unreal and academic approach, unconnected to and remote from operational realities.

3. Other vital reasons why HRAB needs to be recomputed are as follows:

- a. SSA categorically contemplated taking into account aggregate revenue immediately on creation of act/regulatory authority.
- b. Section 13 (1)(a)(vi) and (vii) of the Act as quoted above contemplated exactly the same.
- c. The operational reality of FY 2001-06 and 2006-08 coalesced into the revenue figures of FY 2008-09 ending on 31.03.2009.
- d. Till commencement of the Act, regulatory tariff fixing for prior years, i.e., from 2001 upto the year 2009 were done by MoCA and were based on Single Till methodology, as opposed to the Shared Till methodology which means that all revenues were co-mingled, prior to 31.03.2009, into a single basket ("Single Till") without bifurcation/demarcation and division into Aeronautical Revenue versus Non- Aeronautical Revenue.
- e. This demarcation arose only from the SSA, which was to be applied with effect from 01.04.2009.
- f. If, the mandate of both SSA and Section 13 of the AERA Act is to apply the last year's revenue prior to coming into force of the Act and that relevant year does not make a demarcation between Single Till and Shared Till, how is it possible to calculate the revenue for the year minus one, only on the basis of Aeronautical Revenue, altogether ignoring the Non-Aeronautical Revenue.



4. This fundamental error would make a difference of Rs.3393 Crs and would enhance HRAB of Rs.966 Crs as computed by the Authority to Rs.4359 Crs. This difference of Rs.3393 Crs would cause humongous prejudice to MIAL and would have cascading downstream effect in perpetuity for each year within the first control period and indeed for each subsequent control periods also.
5. For the above reasons, it would seriously impair the viability, quality and efficiency of the MIAL's operations.

In light of above, MIAL requests the Authority to compute HRAB considering the entire revenues in FY 2008-09 being the "then prevailing tariffs and the revenues" which were under single till.



4.1.3. Capital Expenditure made out of PSF (SC)

In terms of Para no. 2 of MOCA Order no.AV.13024/ 03/2011 dated 18.02.2014, MOCA had asked MIAL to refund with interest the amount spent by MIAL (based on the approvals given by MOCA in the past) on capital expenditure related to security, with retrospective effect. The matter was appealed by MIAL before the Hon'ble High Court at Delhi and is sub-judice.

The Authority is also requested to consider any capital expenditure related to security, based on the decision of the Court in this regard as and when any liability devolves on MIAL and allow such amount as part of RAB at the time of true up.



4.1.4. Cost for Stations of Metro Line 7A and Line 8

Metropolitan Commissioner, Mumbai Metropolitan Region Development Authority vide DO letter no. T&C/Cost Sharing-ML-7A & 8 Station/2018/412 dated 13th November, 2018 has asked for consent of MIAL to contribute Rs. 1,422 crores towards cost of two stations on Metro Line 7A (Andheri – CSMIA) and Metro Line 8 (CSMIA – NMIA). However MIAL vide its letter MIAL/CEO/018 dated 04.06.2019 has expressed its inability to contribute for these facilities.

In view of above, no cost has been considered towards such capex. This is for information of the Authority.



4.1.5. Treatment of DF funded assets (RAB)

The DF amount as allowed by the Authority is required to be adjusted (reduced) from the RAB of MIAL for the purpose of tariff determination, since the funds are made available to the airport operator by the passengers at no cost. The Authority had decided to adopt the principle based approach for DF adjustment to RAB based on apportionment of DF collected proportionately over all the eligible assets.

The Authority had considered DF funding of RAB such that fund available to MIAL on account of DF for investment in a year (including any DF apportioned towards CWIP in the previous year brought-forward to the given year) was apportioned over expenditure incurred on the aeronautical assets capitalised and the expenditure incurred on aeronautical CWIP in the given year, as per the scheme indicated in Para 8.63, 8.64 and 8.65 of MIAL Tariff Order No 32/2012-13.

The Authority apportioned the DF to the expenditure incurred on the aeronautical assets capitalised in a year adjusting it from RAB in the given year and the amount which was apportioned to expenditure incurred on aeronautical CWIP was carried over to the subsequent years for adjustment from RAB in those years.

MIAL had earlier submitted a Certificate of Completion of Construction dated 31.08.2015 issued by Engineers India Ltd (Copy attached as Annexure 2), which confirms that the project was completed in FY 16.

Completion of DF funded assets as submitted by MIAL and that considered by the Authority vary. The Authority assumed that the entire DF funded assets aggregating Rs. 3400 Crs. got completed in the FY 2013-14, when only a portion of the new Terminal 2 was commissioned.



MIAL has appealed against the Authority's decision considering such early completion of DF funded assets on following grounds:

- a. Earlier, the Authority itself had allowed DF towards the entire allowable aeronautical cost and it was not restricted to the construction and development of a part of the new Terminal 2 which got fully completed in FY 2015-16 only.
- b. The Authority itself had decided in para 8.64 of the Order no. 32/2012-13 that the balance DF will be adjusted in the year when the project is completed :
"8.64 ... It is further clarified that in the last year of project completion any remaining balance of DF sanctioned by the Authority would be adjusted in the RAB in that year."
- c. It was wrong to assume that the assets funded from DF were all completed in FY 2013-14 itself while CWIP was funded through Equity and Debt.
- d. This approach of the Authority has resulted in denial of returns to MIAL on the assets that were funded through other means and therefore, the remaining DF should actually be adjusted proportionately towards RAB up to FY 2015-16 when the project was completed.

In our submissions we have considered completion of DF funded assets in FY 2015-16, when the new T2 along with its Apron was finally completed and depreciation on DF funded assets has been computed/adjusted accordingly.



4.1.6. Segregation and allocation of Fixed Assets

As per definition of the RB given in the Schedule 1 of the SSA, the RB includes only the Aeronautical Assets, which necessitates segregation and allocation of assets into Aeronautical and Non-Aeronautical Assets.

For this segregation, the asset-by-asset segregation approach adopted in the past control periods has been followed, the asset base is segregated for Aeronautical and Non-Aeronautical Services based on the usage of the asset for the respective service.

In the entire approach the critical assumptions are:

- Assets defined as Aeronautical Assets in OMDA and used for provision of Aeronautical services, (as listed in Schedule 5 of OMDA) are treated as aeronautical. Similarly, Assets used for provision of Non-Aeronautical Services (as listed in Schedule 6 of OMDA) are treated as Non-Aeronautical.
- Assets that cannot be identified as purely Aeronautical or Non-Aeronautical are classified as common assets.

The Aeronautical and Non-Aeronautical Assets after allocation of the common assets based on the area ratio is as follows:

Table 13: Aeronautical and Non-Aeronautical Assets after Allocation of Common Assets (Excluding Upfront Fees & AAI Compensation)

<i>Rs. / Crs.</i>		
Particulars	As at 31 st March 2018	As at 31 st March 2019
Aeronautical Assets	12,072	12,392
Non-Aeronautical Assets	2,239	2,655
Total	14,311	15,047

Though we have computed the allocation ratios as per past practice, we request the Authority to consider the contentions of MIAL under Para 4.1.7 and determine correct RB accordingly.



4.1.7. Entire Terminal should be considered as Aeronautical Asset

Design of Terminal is as per requirements mentioned in Schedule 1 (Development Standards and Requirements) of OMDA and facilities at the terminal are to be designed to IATA level of service standard C for the 30th busy hour in the design year. For any non-aero facility which is constructed within the terminal building, cost of such facility should be considered as non-Aero. However, since these facilities are housed in the terminal building it does not mean that the cost of terminal building has to be divided into Aero and Non-Aero asset. Entire terminal has to be an Aero asset. Even without any non-aero facilities there would not have been any change in size and cost of terminal. We would request the Authority to favourably consider this argument and determine the Target Revenue accordingly.



4.1.8. Regulatory Base for the Control Period

The Regulatory Base (RB) to be used for computation of the Target Revenue pertains to only Aeronautical Asset. Further, the SSA has defined that the RB for a year during the control period to be determined as follows:

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

RB for any year i (RB_i) will be the sum of the closing value of the RB for the immediately preceding year (RB_{i-1}) and investments undertaken in the current year i (excluding CWIP and Upfront Fee) adjusted for the depreciation charged for the current year. Thus the RB for the year i is the closing value of RB for that year.

For the TCP, RB for each year has been calculated as the average of opening and closing RB. However, due to availability of actual capitalisation dates and disposal dates, for the SCP, RB has been calculated considering such actual dates. This treatment is in line with The Authority's Order No. 32/2012-13 dated 15.01.2013 and order No 13/2016-17 dated 23.09.2016.

Further, MIAL has excluded DF funded assets from the RB and has not claimed any depreciation on assets funded through DF assuming that replacement of such assets would also be funded through DF. DF Funded assets have been considered to be completed in FY 2015-16, contrary to the assumption by the Authority that such assets got completed in 2013-14 along with the first phase of the terminal building (T2) which got completed in FY 2015-16 only.

The estimated closing RB for FY 2018-19 forms the opening RB for the first year of the TCP i.e. FY 2019-20. The Assets capitalised during the year have been added to the opening RB and adjusted for depreciation charged during the year to arrive at closing RB for FY 2019-20. RB for other years of control period has been computed on similar basis. The CWIP not capitalised during the year has not been included in RB. The details of RB for the control period are as follows:



Table 14: Computation of RB for the TCP

	Rs. / Crs.				
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Opening RAB	6,190	6,213	6,674	6,653	8,333
(+) Addition excluding Land	559	1,039	537	2,279	334
(-) Depreciation	536	578	558	599	611
Closing RAB	6,213	6,674	6,653	8,333	8,056
Average RAB (Opening + Closing) /2	6,202	6,443	6,663	7,493	8,195
Opening HRAB	2,200	1,953	1,713	1,492	1,296
(-) Depreciation	247	240	221	196	196
Closing HRAB	1,953	1,713	1,492	1,296	1,100
Average HRAB (Opening + Closing) /2	2,076	1,833	1,602	1,394	1,198

Note: RB excludes Upfront Fee, Non-Aeronautical Asset and DF funded assets.



4.2. Weighted Average Cost of Capital (WACC)

A fair rate of return is allowed on the Regulatory Base defined under SSA.

4.2.1. Cost of Equity

The Cost of Equity has been taken on the basis of Report prepared by CARE Advisory Research and Training Ltd (CARE) wherein Cost of Equity (R_E) has been computed based on CAPM as per the following formula:

$$R_E = R_f + \beta_L * EMRP$$

R_E = Cost of equity capital

R_f = Risk Free Interest Rate – 10 years G Sec yield

β_L = Equity beta of the company

EMRP = Equity Market Risk Premium

Where:

R_f = the current return on risk-free rate (being average of month end closing price of 10 year Government Securities till March 2019)

R_m = the expected average return of the market (10 year's CAGR of 90 days moving average of BSE Sensex closing).

EMRP = ($R_m - R_f$), i.e., the average Risk Premium above the risk-free rate that a "Equity Market" portfolio of assets is earning

Relevered Beta β = the beta factor, being the measure of the systematic risk of a particular asset relative to the risk of a portfolio of all risky assets

MIAL is relying on the analysis of Cost of Equity arrived at 25.88% by CARE in its study conducted for MIAL. However, in line with the stand taken by MIAL in its past submissions before the Authority in case of FCP and SCP, MIAL is considering Cost of Equity at 23% for WACC calculation. Detailed Report on Cost of Equity issued by CARE is enclosed as Annexure 3.



The cost of Equity has been worked out as follows in Table No. 15:

Table 15: Cost of Equity (R_E)

Risk Free Rate of Return (R_f) %	10yr G Sec Bonds yield for past 10 years	7.786
Returns from Market (CAGR %) (R_m)	BSE Index for 40 years	15.86
Equity Market Risk Premium (EMRP)	$R_m - R_f$	8.074
Levered Beta (median) (β)		0.802
Unlevered Beta (median) (β_U)	6 airports of developing markets for last 10 years #	0.673
MIAL Debt Equity Ratio (D/E)	As on 31 st March 2019	3.156:1
Tax (t)		34.944%
Relevered Beta (β_L)	$\beta_U \times (1 + (1-t) \times (D/E))$	2.056
Cost of Equity %	$R_f + \beta_L \times \text{EMRP}$	24.386
Company Specific Risk Premium %		1.50
Concluded Cost of Equity R_E (%)		25.886 *

Guangzhou, Xiamen, AOT, Shanghai, Berhad, Grupo (Mexico)

* R_E considered at 23% as against CARE recommended R_E of 25.88%.



4.2.2. Return on Refundable Security Deposits (RSD)

The Authority in its earlier orders determining tariffs for aeronautical services had considered RSD as a zero cost debt, while calculating weighted average cost of capital (WACC). The matter of allowing a return on refundable security deposit was appealed by MIAL as well as DIAL before the Appellate Authority.

Hon'ble TDSAT in its order dated 23.04.2018 in respect of DIAL appeals has stated:

"para 119 (vii) RSD of Rs.1471 crores cannot be a zero cost debt. Its cost needs to be ascertained and made available to DIAL through appropriate fiscal exercise at the time of next tariff redetermination (See Para 106)"

"Para 106. On a careful consideration of all the relevant factors and keeping in mind the provisions in the OMDA including ESCROW Agreement which authorises investment of such money of JVC (ESCROW Account) to be invested in some specified funds having required rating by CRISIL, it is found unacceptable that the amount of RSD would not have earned anything for DIAL if it was not invested in the project, irrespective of the fact that it was available at zero cost from the providers of the deposit. At the least, the cost would be the rate of return made available by the approved funds having required ratings of CRISIL. That return cannot be less than the cost which DIAL has to bear or it has borne by making available the amount of RSD (Rs.1471 crores) for investment in the airport project. Clearly, in our opinion, this money has wrongly been treated as debt at zero cost. The well accepted commercial practices and norms need to be respected by the Authority and therefore, return on RSD amount should be re-determined by it for the reasons indicated above. Instead of interfering with the impugned tariff determination we direct that the amount due to DIAL under this head should be worked out and made available to DIAL through appropriate fiscal exercises which should be undertaken when the exercise of redetermination of tariff for IGI Airport, Delhi is next undertaken in due course."



Further, Hon'ble TDSAT while delivering its judgement in case of appeals filed in connection with tariff determination for CSI Airport, Mumbai for FCP, in its order dated 15.11.2018 held that:

"Para 41 (iv) : In view of facts and stand of the appellants noted in paragraphs 3 and 4 of this order, it is clarified that in respect of relevant issues not pressed in these appeals but decided in DIAL's appeal no.10/2012 that judgement dated 23.04.2018 shall govern the parties herein".

In view of the Hon'ble TDSAT order in case of DIAL and its applicability to MIAL as referred above and since RSD is not considered as debt while calculating Debt Equity Ratio by the lenders, return on Refundable Security Deposit should be considered at par with Cost of Equity for the true-up working of the SCP and determination of tariff for the TCP.



4.2.3. Cost of Debt

The weighted average Cost of Debt (Rd) for the TCP is estimated to be 9.65 %, computed from the outstanding debt and yearly average cost of debt as given below in Table No. 16.

Table 16: Weighted Average Cost of Debt for the TCP

Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Outstanding debt (Rs. / Crs.)	5,498	5,211	4,847	4,423	3,938
Cost of Debt (%)	9.65%	9.65%	9.65%	9.65%	9.65%

The cost of debt for the TCP is based on the premise that the Authority shall determine the aeronautical tariff in line with submissions made by MIAL. However, if the Authority determines a lower aeronautical tariff than the one sought for, there would be increased requirement of funds and the cost of debt may increase / vary. In such case, the Authority shall be required to consider the increased borrowings and the cost related to such borrowings. In such scenario, there may also be a cost attributable to Interest during Construction Period (IDC) in case of capex where the assets shall be completed over a period exceeding one year.



4.2.4. Weighted Average Cost of Capital (WACC) Computation

The weighted average Cost of Capital has been computed based on the following formula:

$$WACC = \left[\frac{D}{D + E + RSD} * R_d \right] + \left[\frac{E}{D + E + RSD} * R_E \right] + \left[\frac{RSD}{D + E + RSD} * R_{RSD} \right]$$

Where

D	:	Average Debt
E	:	Average Equity (including Reserves & Surplus)
RSD	:	Average Refundable Security Deposit
R _d	:	Cost of Debt
R _E	:	Return on Equity
R _{RSD}	:	Return on Refundable Security Deposits

Table 17: WACC for the TCP

	Rs. /Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Average Capital Employed (Net of DF) (a + b + c)	10,708	14,845	19,828	24,777	29,458
Debt (a)	5,886	5,354	5,029	4,635	4,181
RSD (b)	776	1,934	3,358	4,364	4,667
Equity (c)	4,046	7,557	11,441	15,778	20,610
Paid up Capital	1,200	1,200	1,200	1,200	1,200
Internal Accruals (Reserves)	2,846	6,357	10,241	14,578	19,410
Debt	55.0%	36.1%	25.4%	18.7%	14.2%
Equity (Including RSD)	45.0%	63.9%	74.6%	81.3%	85.8%
Weighted Average Gearing	29.86%				
Weighted Average Equity	70.14%				
Cost of Debt	9.65%	9.65%	9.65%	9.65%	9.65%
Weighted Average Cost of Debt	9.65%				
Cost of RSD	23.00%				
Cost of Equity	23.00%				
Weighted Average Cost of Capital	19.01%				



4.3. Return on Cost of Land

In FY 2016, CSMIA passenger handling capacity was 51.53 m. After constructing (V1, V2 & V3) parking stands and TWY M, the capacity would have increased to 55.31 m. However, due to non-availability of required land in possession of slum dwellers, the parking stands and TWY M could not be constructed.

In SCP, MIAL had considered only slum rehabilitation cost of Rs.157 Crs. towards Taxiway M as part of projects to be completed. This was even approved by the stakeholders. However due to non-availability of land this could not be undertaken.

Recently, MIAL has entered into a Memorandum of Understanding (MoU) on 02.03.2019 with the Slums Rehabilitation Authority, Maharashtra. This MoU shall enable allotment of 14,537 tenements situated at Kiroli Road, Kurla West, Mumbai, to slum dwellers residing at 17 pockets of slum land admeasuring 52.29 acres at CSMIA, identified for this purpose.

Following costs, per tenements/ flat, excluding GST shall be incurred on getting the 17 pocket of slums vacated over a period of three years:

- | | |
|---------------------------------------|----------------------------|
| 1. Repairs & refurbishment of flats : | Rs.2,74,000/- per tenement |
| 2. Maintenance charges: | Rs. 20,000/ per tenement |
| 3. Charges to MMRDA | Rs. 20,000/ per tenement |

Apart from above cost on securing the said plots by boundary wall and levelling, etc. shall also be incurred.

With acquisition of a pocket of slum land admeasuring 2.57 acres at Shanti Nagar, which has 401 tenements, the land on which the three gates are to be constructed shall be available. These stands (V1, V2 and V3) could now be completed.

Acquisition of two pockets of slum land located at Sewak Nagar and Arbi Mohalla admeasuring 7.27 and 0.87 acres, with 2300 and 364 tenements respectively, shall pave way for construction of TWY M. Earlier, slum rehabilitation cost of Rs.157 Crs for TWY M was considered in the capex projections for the SCP for which the stakeholders consultation was also done.



Rest of the 14 slum land pockets admeasuring 41.573 acres with 11,472 tenements shall help CSMT Airport in removing the DGCA non-compliances, remove obstacles, have a better efficiency and also dispel some of the safety concern.

Apart from this cost, Rs. 15 Crs shall be spent towards acquiring land admeasuring Rs.3.87 acres, which are part of Sewak Nagar slums and Arbi Mohalla and are owned by Wadia Trust. The total cost of relocation of slums shall be Rs. 659 Crs.

Cost of land includes expenses on relocation of tenement holders from slum land and expense incurred on levelling and securing boundary wall on these plots, so that they do not again get encroached upon, are being capitalised. Since land related costs cannot form part of RAB, an equated annual instalment has been considered in terms of the Order no. 42 / 2018-19 dated 05.03.2019 on Fair Rate of Return on Land (FRoR Order) issued by the Authority. In the FRoR Order, the Authority has allowed a compensation in the form of equated annual instalments computed at actual cost of debt or SBI base rate whichever is lower, over a period of thirty years.

In this connection we wish to state that in case the cost incurred on acquiring the above discussed slum plots, is met only out of equity / retained earnings or through a mix of equity as well as loan funds, allowing the compensation at cost of debt would be detrimental to the interests of the airport investing in such land, which is going to add to the airport's efficiency. In view of above, the Authority should in all fairness, consider the WACC, as the case may be, instead of cost of debt for computing this compensation.

It would not be out of place to mention that MIAL in its comments on consultation paper in respect of FRoR on cost of Land had clearly represented that the return should be given as in case of RAB on the basis of WACC instead of interest rate proposed. However, the Authority preferred an approach that emphasized the need to return the cost of land rather than give a return on investment in line with other assets. The reason provided by the Authority is that providing full return as in case



of other assets may not be possible due to the adverse impact on tariffs. (para 3.10.2. of the FRoR Order)

In this connection, we wish to state that the Authority should not curtail the return / compensation to the airport just on the grounds that incurring it would have an adverse impact on tariffs. Taking decisions based on such approach, would prove to be a disincentive and counterproductive in going ahead with such acquisition of land, that too for the aeronautical purposes. The Authority should not curtail the return on cost incurred on the grounds that it shall impact the tariff adversely.

The annual amount to be amortised has been computed based on cost of debt over the remaining period of initial concession period, instead of 30 years as specified in the FRoR Order.

Though the compensation by way of Annual Payments has been computed at cost of debt, we request the Authority to reconsider its decision and allow computation of compensation against the expenses incurred on relocation of slums at the WACC or as per the actual usage of funds, instead of cost of debt as specified in the FRoR Order.

Table 18: Amortisation of Cost of Land

Particulars	Rs. / Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Cost of Slum Rehabilitation, slum land at Arbi Mohalla and development of land freed from encumbrances	40	303	331	-	-
Amortisation period (years)	16	15	14		
Amortisation Amount (@ Cost of Debt of 9.65 %)	5	44	88	88	88



4.4. Operation & Maintenance Cost

The Operation and Maintenance (O&M) cost consists of the employees cost, electricity, water and fuel cost, repairs & maintenance costs and other operating expenditure. O&M Costs for FY20 have been based on the costs incurred in FY19 and the budgeted figures as approved by the Board of Directors of MIAL. Further projections are made on certain assumptions elaborated against each of the expense head and are based on expenses budgeted for FY20.

Segregation and allocation of O&M costs between Aeronautical and Non Aeronautical services is based on the allocations done by MIAL, on the cost incurrence. This implies that the costs will be segregated based on whether they are attributable to Aeronautical or Non-Aeronautical Services. However there are few costs which cannot be directly attributable to Aeronautical or Non-Aeronautical Services and hence considered as common cost, for which the allocation is done based on the methodology as described in the subsequent paragraphs:

Segregation and allocation of cost is done in 3 stages:

- Identification of directly attributable cost to Aeronautical services, Non-Aeronautical Services and common cost;
- Segregation of directly attributable cost based on its incurrence; and
- Allocation of common cost based on the methodology discussed in the subsequent paragraphs under each sub-head;



Table 19: Percentage of Aeronautical O&M cost to Total O&M cost for FY 20 to FY 24

Cost Head	Aero O & M as % to Total O & M Cost
Employees Cost	95.58%
Electricity, Water and Fuel Costs (net of recoveries)	100.00%
Repair & Maintenance Cost	97.84%
Rents, Rates & Taxes (net of recoveries)	90.50%
Advertising Cost	94.05%
Administrative Cost	90.63%
Insurance Cost	99.86%
Consumables	96.35%
Other Operating Cost	91.48%
Working Capital Loan Interest	100.00%
AOA Fees	100.00%
Finance Charges	89.10%

All India Consumer Price Index (Industrial Workers) (CPI-IW) as specified in Schedule 1 of SSA is not available in the Survey of Professional Forecasters on Macroeconomic Indicators – Results of the 56th Round. Hence, Consumer Price



Index (CPI Combined Headline) for Q3 of 2019-20 forecasted at 4.4% (median) has been considered for our projections as well as X Factor.

(Source: <https://rbi.org.in/scripts/PublicationsView.aspx?Id=18778>)

The assumptions and rationale for each cost head projection are described in detail below:

4.4.1. Employees Cost

The key drivers for employees cost are the number of employees employed for the Aeronautical and Non-Aeronautical Services. MIAL is assuming that during the TCP, there will be no change in the number of employee's headcount. The compensation for existing employees is expected to increase by 10% YoY.

Out of total 1222 employees, 1168 employees are engaged in aeronautical activities, while 54 are for non-aeronautical activities.

Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Head Count (Nos.)					
Aero	1,168	1,168	1,168	1,168	1,168
Non Aero	54	54	54	54	54
Total Head Count (Nos.)	1,222	1,222	1,222	1,222	1,222
Employee Cost (Rs. / Crs.)	201.7	222.1	244.3	268.8	295.7

4.4.2. Electricity, Water and Fuel

Electricity Cost

Electricity cost per unit is based on FY19- 20 tariffs fixed as per the order of Maharashtra Electricity Regulatory Commission (MERC) and thereafter projected to increase by 5% YoY. MIAL is expecting that gross consumption of units will increase by 5% per annum during the TCP.



The Authority is requested to true up the unit rate based upon actual applicable unit rate for the control period together with the actual consumption. Recoveries from concessionaires (towards Non-Aeronautical costs) have been deducted from total electricity cost to arrive at net electricity cost for Aeronautical Services.

Water Cost

Based on historical trend, consumption of water per KL is expected to increase by 5% p.a. and rates will escalate by 7% YoY. Estimated recoveries from concessionaires (towards Non-Aeronautical costs) have been deducted from total water cost to arrive at net water cost for Aeronautical services. The Authority is requested to true up the unit rate based upon actual applicable unit rate and the actual consumption experienced during the TCP (net of recoveries).

Fuel Cost

Based on historical trend, consumption of fuel and rate per unit is expected to increase by 4.4% YoY basis. Estimated recoveries from concessionaire for CNG (towards Non Aeronautical Cost) have been deducted to arrive at the cost of fuel towards Aeronautical services. The Authority is requested to true up the unit rates based upon actual applicable unit rate for the actual fuel consumption during the control period.

Particulars	Rs./ Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Electricity	136.7	151.1	167.0	184.5	203.9
Water	8.0	9.1	10.3	11.6	13.1
Fuel	2.6	2.9	3.1	3.4	3.7
Total Electricity, Water and Fuel cost	147.3	163.1	180.4	199.5	220.7



4.4.3. Repairs and Maintenance cost

Repairs and Maintenance cost is estimated to be 1.25% of opening Gross Fixed Assets (GFA). The cost for the last five years is in the range of 0.77%~1.10% of Gross Fixed Assets. Since the majority of the equipment are now out of warranty period and would require significantly increased cost on maintenance activities hence a nominally higher cost of 1.25% of opening GFA for the respective years GFA has been considered.

Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
R&M cost	145.8	152.6	164.7	171.2	199.3

4.4.4. Rents, Rates and Taxes

Rental

Rental expenses during the TCP are expected to increase based on agreements.

Property Tax

Property tax has been estimated based on current rate of property tax and increase in rates as per the provisions of Mumbai Municipal Corporation Act, 1888. As per Section 140A of the Act, property tax shall not exceeds 40% of the amount of tax payable in the year immediately preceding the year of revision. MIAL is expecting a revision in the tax rate in FY 21 based on this, 40% increment in the tax rate considered which is expected to continue for following years.

Recoveries from concessionaires towards Non-Aeronautical costs have been deducted from total property tax cost to arrive at net property tax cost for aeronautical services.

Non Agricultural Tax

NA Tax has been projected based on current rate of NA Tax and increase in rates as per the provisions of Maharashtra Land Revenue Code, 1966. According to which the tax rates could escalate by maximum three times of previous tax rates every five



years. MIAL is envisaging that tax rate will increase by three times of the tax amount for FY21 in FY22.

Being statutory costs, MIAL requests the Authority for truing up of Property Tax & NA Tax on actual basis.

Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Rents, Rates & Taxes	46.3	47.7	68.9	79.9	80.8

4.4.5. Advertising Cost

Advertisement costs are expected to increase by 10% YoY, considering FY19 as the base year.

Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Advertising cost	8.0	8.8	9.7	10.7	11.8

4.4.6. Administrative Cost

The administrative costs such as travelling and conveyance, legal and professional charge, communication etc. have been assumed to increase in line with the CPI.

Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Administrative cost	84.0	87.7	91.5	95.5	99.9

4.4.7. Airport Operator Fee

The fee payable to the airport operator is projected to increase annually by US CPI Inflation at 1.9% p.a.(source : <https://www.bls.gov/cpi>), as per Airport Operator Agreement dated 28.04.2006 between MIAL and ACSA Global Ltd. US\$ to INR conversion rate is considered at Rs.69.11 for the entire control period.

Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Airport Operator Fees	9.9	10.1	10.3	10.5	10.7



4.4.8. Insurance Cost

The insurance cost is based on the sum insured under various policies. MIAL has two major insurance policies:

- i) Industrial All Risk Policy covering all fixed assets of MIAL where insured amount will be based on value of fixed assets.
- ii) Airport Operator's Liability Policy for third party claims, premium of which is expected to increase in line with CPI.

Particulars	FY 20	FY 21	FY 22	FY 23	Rs./Crs.
					FY 24
Insurance Cost	4.7	4.9	5.2	5.7	5.9

4.4.9. Consumable Stores

MIAL estimates that expenses on consumable stores will increase by passenger growth rate and CPI over FY 19 being the base year.

Particulars	FY 20	FY 21	FY 22	FY 23	Rs./Crs.
					FY 24
Consumables Stores	6.6	7.5	8.0	8.5	9.2

4.4.10. Other Operating Costs

Other operating costs have been estimated as follows:

- **Cleaning and other operating Contracts** – These contracts are labour intensive. For the increase in the wages, 5 years CAGR (FY 14~FY 19) of National Floor Level of Minimum Wages has been considered. Also, increase in cost is based on contracts wherever specifically applicable.
- **Trolley Retrieval Contract** – Increase is based on passengers' growth and 5 year CAGR of National Floor Level of Minimum Wages.



Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Gardening contract & expenses	8.1	8.5	8.9	9.3	9.7
Cleaning contract	67.3	70.4	73.7	77.1	80.6
Trolley Retrieval Contract	16.3	17.1	17.9	18.7	19.6
Other operating contracts	59.1	61.8	64.7	67.7	70.9
Other Operating costs	150.8	157.8	165.2	172.8	180.8

4.4.11. Working Capital Interest and Finance Charges

The interest on working capital is assumed to be nil

Based on past experience, finance charges have been considered at the same levels as for FY19 without any increase. However, if there is any increase in actual charges, the Authority is requested to true up at the time of determination of tariff for the next control period.

Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Finance charges	20.0	20.0	20.0	20.0	20.0

In case the Authority determines the tariffs for the TCP at rates lower than requested / demonstrated in this tariff proposal, there would be requirement of working capital limits / loans which may be available at higher cost than available at present. The Authority is requested to consider the said costs on actuals as true up at the time of determining tariff for the fourth control period.

4.4.12. Issues pertaining to security expenses (PSF-SC)

As per MIAL, expenses, other than capex, incurred towards security and charged to PSF(SC) are to be considered as incurred from PSF(SC). However, as per past



experience, sometimes MoCA has objected on certain expenditures to be incurred from PSF (SC). Any expenditure which has been considered out of PSF (SC) and on subsequent objection by MoCA is borne by MIAL, the same should be considered during true up for the TCP by the Authority.

4.4.13. Bad debts

Bad debts, if any, shall be claimed as per actuals.



4.5. Depreciation

As per SSA, rates applicable under Schedule XIV of the Companies Act, 1956 are to be applied on the value of the assets. This Act has been replaced by the Companies Act, 2013. Depreciation is calculated considering useful life of assets prescribed in terms of para 4 under Part B of Schedule II to the Companies Act, 2013. As per the said provisions, useful life of assets as prescribed by the regulator are to be considered for depreciation. Accordingly, useful life mentioned by the Authority in its Order no. 35/2017-18 dated 12.01.2018, which came into effect from 01.04.2018 are used for calculating depreciation.

Table 20: Depreciation on Aeronautical Assets

Particulars	FY 20	FY 21	FY 22	FY 23	Rs./Crs.
					FY 24
Depreciation on RAB	536.4	578.2	557.9	598.5	611.1



4.6. Income Tax

We reiterate that the Authority should give credence to the provisions of the SSA where permissible Corporate Tax is to be computed without considering Annual Fee as cost. This is abundantly clear from the illustration given in Schedule 1 of the SSA. Similarly cross subsidisation ('S' – being 30% of Gross Revenue from Revenue Share Assets) should not be considered for calculation of Corporate Tax i.e. Aeronautical Income should not be reduced by 'S'. Hon'ble TDSAT has already remanded this issue for reconsideration by the Authority

The concept of permitting Income Tax which is not same as actual income tax is not new. Before amendment of Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulation, 2009, for the purpose of computing post tax cost of equity, normal rate of tax was to be considered i.e. pre tax cost of equity was to be divided by $1-t$, where t is the normal rate of tax, irrespective of effective rate of tax applicable to the entity. Now this regulation stands amended, which further strengthens our argument that provisions of concession agreement cannot be overruled, which is also guaranteed under AERA Act and has also been upheld by the Hon'ble TDSAT.



4.7. Revenue from Revenue Share Assets (S)

The Revenue from Revenue Share Assets for the TCP has been projected based on applicable revenue drivers / agreements / contracts.

The approach adopted in each case is described below:

4.7.1. Land Lease Rentals, License Fee and Space Rent

Land Lease Rent, Hangar Rent, Terminal Building rent and other building Rent are expected to increase at a rate of 7.5% p.a. or as per existing agreements/ Lols / LoAs

Rs. / Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Land Lease rentals (excluding Real Estate)	89.9	88.2	92.7	97.5	105.5
Hangar Rent	15.3	19.1	25.7	27.6	29.7
Terminal Building Rent	58.0	67.8	76.1	82.6	88.4
Other Building Rent	35.7	38.4	41.3	44.4	47.7
Land Lease Rentals	198.9	213.5	235.8	252.1	271.3

4.7.2. Lounge Concessions

Revenue from Lounge concession is driven on the basis of revenue earned per embarking passenger in FY 20, without any escalation.

Rs./Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Lounge Concessions	80.0	87.2	88.7	90.7	93.7

4.7.3. CUTE Counter Charges:

Revenue from CUTE Counter charges are computed based on existing rates as per last order and the ATMs, without any escalation.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
CUTE Counter Charges	13.5	14.7	15.1	15.6	16.2



4.7.4. Food and Beverage (F&B) Concessions

Revenue from F&B concessions is driven on the basis of revenue per embarking passenger earned by MIAL in FY 20, which is increased YoY in line with CPI.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
F & B Concessions	138.0	157.0	166.8	178.0	191.9

4.7.5. Flight catering concessions

Revenue from Flight Catering concessions is considered on the basis of embarking passenger for FY 20. With the disruption in operation of Jet Airways the future the earnings from flight catering are uncertain and may not be in line with the past.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Flight Catering Concessions	26.0	28.3	28.8	29.5	30.4

4.7.6. Retail Concessions

Revenue from retail concessions is considered on the basis of revenue per embarking passenger earned by MIAL in FY 20, increased by inflation for rest of the years.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Retail Concessions	154.0	175.1	186.1	198.7	214.1

4.7.7. Forex Concessions & Automated Teller Machines (ATMs)

The revenue from Forex and ATM concessions is assumed to increase as per the contracts.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Forex	62.0	68.4	71.6	75.0	79.2
ATM	6.9	6.6	6.2	5.9	5.6
Total	68.9	75.0	77.8	80.9	84.8



4.7.8. IT and Communication

The revenue from IT and communication is assumed to increase as per the contracts.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
IT & Communication	33.0	36.0	36.6	37.4	38.6

4.7.9. Car Rental and Hotel Reservation Concessions

Only the disembarking passengers avail the car rental and hotel reservation facilities.

The revenue is expected to grow as per disembarking passenger and inflation.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Car Rentals & Hotel Reservation	24.0	27.3	28.9	30.9	33.3

4.7.10. Duty Free Concession

Revenue from Duty free is considered at higher of:

- i) MAG and
- ii) Estimated revenue share.

Sales at Duty Free Shop for the purpose of Revenue share is based on revenue per International passenger, including transit.

Rs. /Crs.					
Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Duty Free Concession	370.0	411.2	450.8	489.7	525.0



4.7.11. Advertisement Concession

Revenue from Advertising concession is expected to grow with inflation based on FY 19.

Particulars	Rs. /Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Advertising Concession	168.2	183.2	186.4	190.6	196.8

4.7.12. Car Parking Concessions

Revenue from Car parking concessions is expected to grow as per the contract.

Particulars	Rs. / Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Car Parking Concessions	24.9	27.3	30.1	33.1	36.4

4.7.13. Ground Handling Concessions

Revenue from Ground Handling concessions are considered at higher of:

- i) MAG and
- ii) Estimated revenue based on revenue per ATM earned in FY 19.

Due to change in rules regarding Non Entitled Manpower Agency under Ground Handling Regulation 2017, there will be reduction in revenue to the tune of Rs 22.52 Cr in FY 20 as compared to FY19.

Particulars	Rs. / Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Ground Handling Concessions	97.4	98.3	99.7	100.5	101.9

4.7.14. Fuel Concessions

Revenue from fuel concessions is projected based on average consumption per ATM in FY 19 multiplied by projected ATMs and throughput charge rate/KL. Throughput



charge rate/KL is assumed to increase by 5% YoY as per MoU between OMCs and MIAL.

The Authority in its Order dated 15.01.2013 and 23.09.2016 had considered Fuel concession as an Aeronautical service which has been disputed by MIAL.

Hon'ble TDSAT in its Order dated 15.11.2018 in MIAL appeal against the tariff order for FCP has chosen not to interfere with the decision of the Authority in respect of FTC. MIAL has appealed against this issue before Hon'ble Supreme Court and the matter is sub-judice.

Particulars	Rs/ Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Fuel Concessions	164.0	186.4	198.3	212.1	228.6

MIAL continues to claim that income from Fuel Concessions is non-aeronautical in nature. Time and again it has submitted its contentions, which so far have been rejected by the Authority as well as the Appellate Tribunal.

In addition to what has been submitted by MIAL before different authorities and which the Authority is also aware of, we would like to submit that income from Fuel Concession is towards permission granted to suppliers of fuel to conduct business at the airport. In no way, MIAL is involved in supplying fuel to the aircraft at CSMIA. The Authority and the Appellate Tribunal have rejected the above claim without assigning any valid reasons. While passing order for the FCP, one of the argument given by the Authority was that under Schedule 5 of OMDA vide serial no 17 – “Common hydrant infrastructure for aircraft fueling services by authorised providers” is included as aeronautical services, hence FTC is aeronautical in nature. Argument of the Authority is self-defeating as Entry no. 17 is relied upon. Entry No. 17 talks about hydrant infrastructure for aircraft fuelling services by **authorised providers** [emphasis supplied], MIAL in no way is an authorised provider as it is not providing any fueling services.



Fuel hydrant system belongs to fuel farm and cost of the same is being included in RB of the fuel farm for the purpose of tariff determination by AERA.

This specific issue is dealt with by ICAO in its 2 documents i) Airport Economics Manual (Doc 9562) and ii) ICAO's Policies on changes for Airports and Air Navigation Services (Doc 9082). These details have already been submitted to the Authority by MIAL, hence the same are not reproduced in this MYTP.

We request the Authority to reconsider this issue with an open mind.

4.7.15. Cargo

Domestic Cargo:

- MIAL has assumed growth in belly cargo, as per growth in the Domestic ATM. For freighter cargo, MIAL has assumed there will be no change in the number of ATMs. Based on this, there will be no change in the freighter tonnage.

International Cargo:

- Tonnage growth in belly cargo has been considered based on ATM growth, while no growth is considered for the freighter cargo.
- As per CP No 02/2019-20, the Authority has proposed a tariff increase of 15% in FY 2019-20 and 3% in FY 2020- 21. Based on above we have assumed same growth in the cargo handling rates for the TCP for computation of concession fee payable to MIAL.

Perishable cargo

- Tonnage growth for the TCP is based growth in the total ATM.
- Cargo handling rates for the purpose of computing concession fee have been considered based on Order No 43/2018-19 where the Authority has allowed an increase of 25% in FY20 & FY21. However, considering the competition from other cargo operators, we have considered that tariff rates to be charged will



increase by only 15% in FY 20. For rest of the years, there will be no change in the rates.

Courier:

- MIAL has assumed growth in the tonnage as per growth in the International ATM for the TCP
- As per order No 32/2018-19, the Authority had decided that M/s EICI may be allowed to levy the tariff existing as on 30.11.2018 till 31.03.2019 or till determination of tariff for the SCP, whichever is earlier. Based on which no change in rates has been considered.

Projections for revenue from cargo concessionaires is as follows:

Particulars	Rs./Crs.				
	FY 20	FY 21	FY 22	FY 23	FY 24
Domestic cargo	36.1	38.0	38.0	38.2	38.5
International cargo	228.8	262.9	281.1	297.8	317.3
Perishable Cargo	19.9	21.3	22.7	24.0	25.5
Courier	19.4	21.3	22.4	23.5	24.9
Cargo handling	22.8	22.8	22.8	22.8	22.8
Total	327.0	366.3	387.0	406.3	429.0



Table 21: Summary of Projected Revenues from Revenue Share Assets for the TCP

	Rs./Crs.				
Retail Licences Revenue	FY 20	FY 21	FY 22	FY 23	FY 24
F&B	138.0	157.0	166.8	178.0	191.9
Flight Kitchen	26.0	28.3	28.8	29.5	30.4
Retail concession	154.0	175.1	186.1	198.7	214.1
Foreign exchange, Banks & ATM	68.9	75.0	77.8	80.9	84.8
IT & Communication	33.0	36.0	36.6	37.4	38.6
Car Rentals & Taxi Service	24.0	27.3	28.9	30.9	33.3
Duty Free Shops	370.0	411.2	450.8	489.7	525.0
Advertising Income	168.2	183.2	186.4	190.6	196.8
Car Parking	24.9	27.3	30.1	33.1	36.4
Ground Handling	97.4	98.3	99.7	100.5	101.9
Aircraft refuelling	164.0	186.4	198.3	212.1	228.6
Others	51.2	58.2	61.9	66.0	70.5
Into Plane Revenue	2.2	2.4	2.4	2.5	2.6
Sub Total	1,321.8	1,465.7	1,554.6	1,649.9	1,754.9
Rent & Services Revenue	FY 20	FY 21	FY 22	FY 23	FY 24
Land Rent & Lease	89.9	88.2	92.7	97.5	105.5
Hangar Rent	15.3	19.1	25.7	27.6	29.7
Terminal Building Rent	58.0	67.8	76.1	82.6	88.4
Cute counter charges	13.5	14.7	15.1	15.6	16.2
Lounges	80.0	87.2	88.7	90.7	93.7
Cargo Building Rent & Other Building rent	35.7	38.4	41.3	44.4	47.7
Sub Total	292.4	315.4	339.6	358.4	381.2
Cargo Revenue	FY 20	FY 21	FY 22	FY 23	FY 24
Domestic cargo	36.1	38.0	38.0	38.2	38.5
Cargo Handling revenue	22.8	22.8	22.8	22.8	22.8
Perishable Cargo	19.9	21.3	22.7	24.0	25.5
Courier Revenue	19.4	21.3	22.4	23.5	24.9
International Cargo Revenue	228.8	262.9	281.1	297.8	317.3
Sub Total	327.0	366.3	387.0	406.3	429.0
Grand Total	1941.2	2147.4	2281.2	2414.6	2565.1



4.8. Truing up for the first control period

The Authority had trued up the working for the FCP in its Order dated 26.09.2016, determining a claw back of Rs.506 Crs. However, the true up working for the FCP as per MIAL, considering the impact of the TDSAT Orders dated 23.04.2018 and 15.11.2018 in respect of appeals filed by DIAL and MIAL respectively, together with the pending appeals in respect of FCP and SCP before the Hon'ble Supreme Court and TDSAT is as below:

Table 22: True up for the FCP

	Rs./Crs.					
Actual	FY 10	FY 11	FY 12	FY 13	FY 14	Total
Landing charges	269	285	298	341	624	1,818
Parking charges	16	11	9	11	34	81
Passenger X- Ray Charges	20	-	-	-	-	20
PSF (FC)	98	110	117	96	2	424
Aerobridge	-	-	-	4	30	34
UDF	-	-	-	67	483	550
Unauthorised Overstay	-	-	-	6	6	12
Total Aero Revenue	403	406	424	526	1,179	2,938
Target Revenue						
Return on RAB	264	331	382	409	535	1,921
Average RAB	834	1,330	1,725	1,951	2,835	
Average HRAB	945	900	852	804	768	
Total	1,778	2,230	2,577	2,755	3,603	
WACC	14.84%	14.84%	14.84%	14.84%	14.84%	
OM - Efficient Operation & Maintenance cost	375	191	311	382	502	1,761
Depreciation - RAB	54	84	107	123	184	552
Depreciation HRAB	42	48	48	48	24	210
Total Depreciation	96	132	155	171	208	762
Tax	13	72	33	46	62	226
Non Aero Revenue	582	763	878	943	972	4,138
Share of Revenue from Revenue Share Assets	(174)	(229)	(263)	(283)	(292)	(1,241)
Target Revenue	574	496	619	725	1,015	3,429
Revenue GAP	170	89	195	199	-163	490
Revenue GAP with carrying cost	340	155	296	262	-187	-
True up	866					



The Authority is requested to approve the true up for the FCP as submitted by MIAL.

4.9. Trueing up for the second control period

The Authority had passed tariff Order for the SCP FY14-FY19 on 26.09.2016 and had decided to true up certain revenues, expenditure based on the working for the control period. We request the Authority to true up the numbers for the SCP as per details below:

Table 23: True up for the SCP

	Rs. / Crs.					
Actual	FY 15	FY 16	FY 17	FY 18	FY 19	Total
Landing charges	648	692	940	1,335	1,391	5006
Parking charges	29	29	48	64	65	235
Aerobridge	42	46	72	87	89	336
UDF	547	630	442	120	160	1,899
Unauthorised Overstay	6	7	9	12	13	47
Total Aero Revenue	1,272	1,404	1,511	1,618	1,720	7,524
Target Revenue						
Return on RAB	842	973	1,008	1,001	961	4,785
Average RAB	5,164	6,132	6,430	6,433	6,213	
Average HRAB	726	674	624	571	516	
Total	5,890	6,806	7,054	7,004	6,729	
WACC	14.29%	14.29%	14.29%	14.29%	14.29%	
OM - Efficient Operation & Maintenance cost	807	637	713	737	832	3,726
Depreciation – RAB	409	401	446	479	521	2,256
Depreciation HRAB	60	46	53	54	56	269
Total Depreciation	469	447	499	533	577	2,525
Tax	-	-	-	27	69	96
Non Aero Revenue	1,095	1,273	1,491	1,739	1,917	7,515
Share of Revenue from Revenue Share Assets	(328)	(382)	(447)	(522)	(575)	(2,254)
True up for FCP	866					
HRAB Impact	-	-	-	-	12,922	12,922
Target Revenue	2,656	1,673	1,772	1,777	14,787	22,665
Revenue GAP	1384	269	261	160	13,067	15,141
Revenue GAP with carrying cost	2,698	460	390	208	13,088	
True up	16,844					



4.10. Summary of Target Revenue

Based on the above details Target Revenue for the control period has been computed and the same has been summarised below:

Table 24: Target Revenue for the TCP

	Rs./Crs.				
	FY20	FY21	FY22	FY23	FY24
Regulatory Base*	8,278	8,276	8,265	8,887	9,393
WACC	19.01%	19.01%	19.01%	19.01%	19.01%
Return on RAB	1,574	1,573	1,572	1,690	1,786
Operation & Maintenance cost	787	861	922	993	1,082
Depreciation	784	819	779	795	806
Amortisation of Land Cost	5	44	88	88	88
Corporate Tax	2,611	3,015	3,276	3,531	3,880
30% of Revenue from Revenue Share Assets (RSA)	(578)	(640)	(680)	(720)	(764)
Truing up of SCP	16,844				
Target Revenue	22,026	5,672	5,956	6,376	6,878

(*) Net of Upfront Fees, DF funded assets and Non-Aeronautical Assets.



5. Passenger Traffic and Air Traffic Movements (ATMs) Forecast

Mumbai airport is a land locked and most constrained single runway airport in the world. It is also the most efficiently managed airport and holds the world record for maximum movements on a single runway in a single day.

ATM and Passenger Traffic in SCP is as per Table No. 25

Table 25: ATM and Passenger traffic in SCP

	FY 15	FY 16	FY 17	FY 18	FY 19
ATMs (nos)					
- Domestic ('000)	195.37	220.25	224.90	234.61	232.64
5 year CAGR (%):					4.32%
- International ('000)	74.09	76.38	80.57	86.08	88.62
5 year CAGR (%):					4.14%
Total ('000)	269.46	296.63	305.47	320.69	321.26
5 year CAGR (%):					4.27%
Passengers (in Millions)					
- Domestic	25.21	30.05	32.72	34.85	34.09
5 year CAGR (%):					9.27%
- International	11.43	11.62	12.43	13.65	14.74
5 year CAGR (%):					7.35%
Total	36.63	41.67	45.15	48.50	48.83
5 year CAGR (%):					8.69%



The past five year CAGR for ATM and Passenger if applied for TCP would lead to highly unrealistic ATM and passenger throughput. In view of single runway operations coupled with constraint on availability of slots, such over ambitious/unrealistic ATMs and Passengers shall not be achievable.

It is notable that ATM were severely affected due to closure of runway for 3 days per week from 7th February, 2019 to 30th March, 2019, resulting in cancellation of 230 flights per day. Another closure of runway is planned from November 2019 to May 2020 which shall again severely affect the ATMs and passengers throughput in FY 20 and FY 21.

Based on above, Passenger Traffic forecast has been arrived based on subdued growth in ATMs and a part of growth shall be available only from any increase in passenger load factor. However, past experience shows that growth in the Passenger Load Factor too is restricted as the airlines tend to drastically increase, the fares whenever the load factor goes beyond 85%.

With recent MoU entered between MIAL and the SRA (Slums Rehabilitation Authority), 17 plots in occupation of slum dwellers admeasuring 52.9 acres of land shall be made available to MIAL for aeronautical usage. SRA shall make available 14537 tenements in 24 towers, which shall have to be got repaired by MIAL and handed over to slum dwellers. (Discussed in para 4.3).

With this development, three stands V1, V2 and V3 with the related apron shall be completed by FY 2022-23 in phased manner, after taking possession of required land. This shall make available 36 slots per day resulting in phased increase in passenger handling capacity by 1.77 m.p.a.

Similarly with possession of another two plots, construction of TWY M, earlier approved by the Authority in SCP tariff order, shall also be taken up and completed



by FY 2022-23. This shall make available 36 slots per day resulting in phased increase in passenger handling capacity by 2.01 m p.a.

Impact of cancellation of Jet Airways flights has been considered in the forecast of ATMs and passenger traffic for the FY 20. In FY 20, there is an estimated fall by 14.780 ATMs due to combined effect of Jet closure and the Runway carpeting work scheduled to start in November 2019 and complete in May 2020. In view of the above factors, Domestic and International ATM's are expected to grow by CAGR of 1.3% and 3.04% respectively while passenger traffic is expected to grow at CAGR of 2.08% and 3.16% respectively.

Table 26: ATM and Passenger Throughput forecasted for TCP

	FY19	FY20	FY21	FY22	FY23	FY24
	Actual	Projected				
ATMs ('000)						
Domestic	232.64	226.16	243.82	243.82	245.28	248.57
International	88.62	80.33	87.97	92.35	97.09	102.93
Total ATMs	321.26	306.48	331.79	336.17	342.37	351.50
Passenger (millions)						
Domestic	34.09	33.53	36.34	36.55	36.98	37.80
International	14.74	13.48	14.87	15.57	16.31	17.23
Total Passenger Throughput	48.83	47.01	51.22	52.12	53.29	55.02



6. Determination of Escalation Factor

The escalation factor for tariff increase is to be calculated by solving the equation given in the SSA. While determining X factor at the beginning of regulatory period, the value of CPI would be forecasted value, which would need to be replaced by actual value subsequently. MIAL has computed a One-time tariff increase to be effective from 1st April, 2019 for the next control period and yearly inflationary increase thereafter. Based on building blocks discussed hereinabove and underlying assumptions, Target Revenue requirements and proposed tariff increase are as below:

Table 27: Target Revenue and Proposed Tariff increase

	<i>Rs./Crs.</i>				
	FY 20	FY 21	FY 22	FY 23	FY 24
Target Revenue	22,026	5,672	5,956	6,376	6,878
Proposed Tariff increase (w.e.f. 01.04.2019)	446.8%				
Estimated Revenue at Proposed Tariff	8,879	10,088	10,819	11,649	12,648

The actual escalation / X Factor shall have to be determined based on the actual date from which the revised tariffs shall be made applicable.



7. Annual Tariff Proposal (ATP)

In this regard, it is submitted that MIAL is preparing its Annual Tariff Proposal, which shall be filed before the Authority in due course. However, we shall prior to submitting the ATP, shall provide major points with respect to deliverance of incentives, billing, security, other terms and conditions, etc. for general understanding of the stakeholders.



8. Dispute with AAI with respect to Annual Fee

For information of the Authority, the MIAL was paying Annual Fee based on interpretations of the provisions of OMDA which according to MIAL were erroneous. AAI has not accepted the claim of MIAL and matter is pending before Arbitral Tribunal, pursuant to the provisions of OMDA. No effect of such claim has been considered since the matter is sub-judice.



9. Information to be redacted

With reference to MYTP, MIAL will make various submissions/ providing information from time to time to the Authority. We would like to request the Authority to kindly redact the submissions / information details of which will be submitted in due course considering commercial sensitivity involved as disclosure of the same in public domain might affect interest of MIAL adversely.



10. Prayers

In view of the foregoing submissions MIAL requests the Authority to:

- a) Consider and approve the proposed target revenue for the TCP by approving the proposed increase in tariff by 446.8%.
- b) Allow interim true up of any levy of new or increased taxes, increase in unit rates of electricity and water, besides other true ups as may be decided by the Authority
- c) In case of a mismatch in cash inflows and outflows, allow accelerated depreciation / higher tariffs in the earlier years of the control period and accordingly allow re worked Target Revenue for the purposes of calculation of Tariff.
- d) Consider any other issue having impact on tariff calculation which may come up while determining the aeronautical tariff.

The submission of MYTP for TCP is without prejudice to MIAL's rights and contentions in other proceedings before the Hon'ble TDSAT and the Supreme Court and any omission to deal with any specific issue should not be construed as an admission on part of MIAL. MIAL reserves its right to submit further details, comments, documents, response and submission (including revision of the proposal, if considered necessary), etc.





भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

AAI/CHQ/Tariff/Misc/2017/343

Dt. 18th June 2018

To,

Chief Executive Officer,
Mumbai International Airport Pvt Ltd
Chhatrapati Shivaji International Airport,
1st Floor, Terminal 1,
Santacruz (E), Mumbai 400099.

Sub:- Components of Non Traffic Revenue in Annual Accounts of AAI for 2006-07 and Determination of Tariff for AAI airports in 2005-06.

Sir,

Reference is invited to your letter no. MIAL/CEO/023 Dt. 06th June, 2018 on the above subject.

1. The components of Traffic Revenue and Non Traffic Revenue in the financial year 2007-08 as per records are as under: -

(a) Traffic Revenue

- I. Route Navigation Facility charge
- II. Landing Fees
- III. Parking and Housing Fees
- IV. Terminal Navigation Landing charges
- V. Passenger Fees

(b) Non Traffic Revenue

- I. Public Admission Fees
- II. Trading Concessions*
- III. Rent and Services

* Fuel Through put charges were accounted as part of Trading Concession

2. The Airport charges were fixed on cost recovery principle as per ICAO documents 9082 and in consultation with IATA. The said documents state that while determining the cost basis for airport charges, the cost to be shared is the full cost of providing the airport and its essential ancillary services, including appropriate amounts for cost of capital and depreciation of assets, as well as the costs of maintenance, operation, management and administration, but allowing for all aeronautical revenue plus contribution from non-aeronautical revenues accruing from the operations of the airports to its operators.



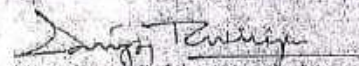
(V. Vidyasagar)
GM(F&A)

CERTIFICATE OF COMPLETION OF CONSTRUCTION

It is hereby certified that New International Apron of Terminal T2 ((Phase III - Refer Annexure I (1- Sheet))) has been completed (Project Code: N55C).

This certificate is issued as verification of compliance of 'Schedule 21 - Clause C & Chapter VIII - Clause 8.7' of the Operation, Management and Development Agreement (for Non-Mandatory Capital Projects).

Signed:


(Sanjoy Mukherjee)
Project Manager
Independent Engineer

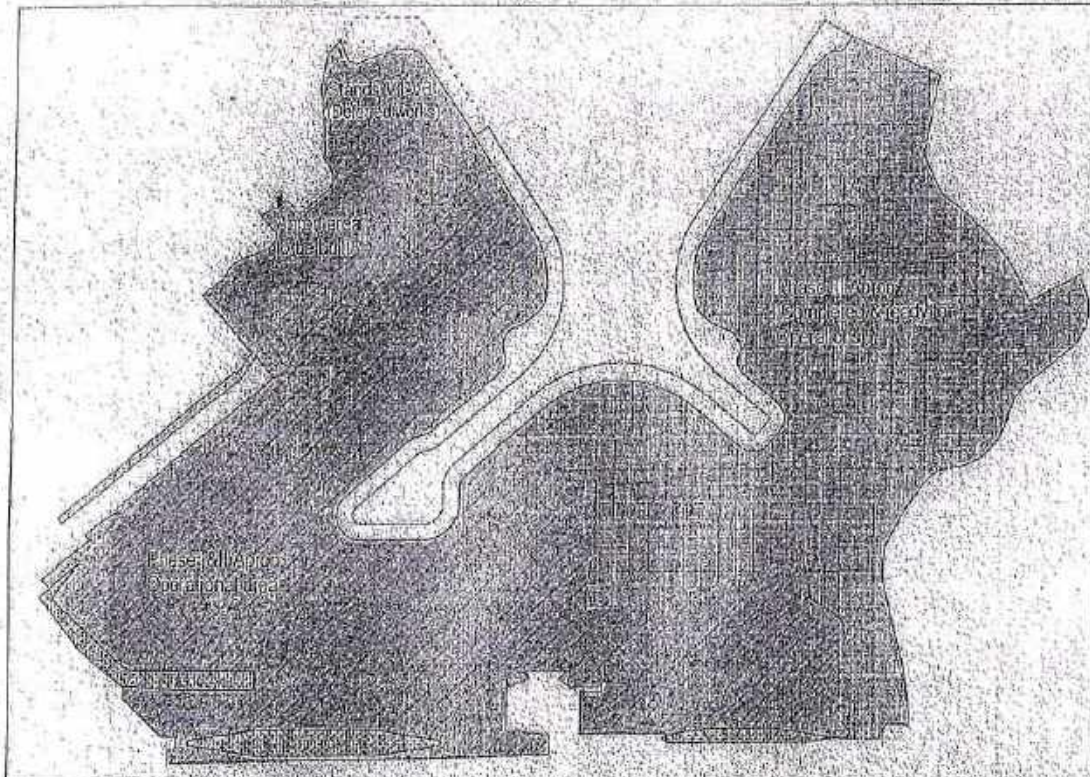
Date: 31st August 2015

Kind Attention: Shri Chanderbhan Manwani,
Director (Projects),
Mumbai International Airport Pvt. Ltd. (MIAL),
Project Office, next to Hyatt Hotel,
Sahar Road, Andheri (East),
Mumbai-400099.



Mumbai International Airport Pvt Ltd
CSIA Expansion & Renovation Program

Terminal 2 Apron Areas



Average area pertaining to stands V1-V3 (Deferred works)	=	36,492 Sqm
Apron area to be built	=	35,053 Sqm
Phase I&II Apron Operational area	=	4,56,999 Sqm
Phase III Apron completed & ready for Operations	=	3,46,998 Sqm
<hr/>		
T2 Apron total Area	=	8,75,542 Sqm





Report
On
Computation of 'Cost of Equity'
for
Mumbai International Airport Limited (MIAL)

May 2019

By:



CARE Advisory Research and Training Limited



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ABOUT US

CARE Advisory Research and Training Limited

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ABBREVIATIONS

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- EMRP - Equity Market Risk Premium
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BACKGROUND

Mumbai International Airport Ltd. (MIAL), a joint venture between the GVK led consortium (74%) and Airports Authority of India (26%), was awarded the mandate of modernizing and upgrading Mumbai's Chhatrapati Shivaji Maharaj International Airport (CSMIA) in February 2006.

For the purpose of tariff estimation, MIAL wants to ascertain its cost of equity.

MIAL vide its letter No. MIAL/VPR/2018-19/20 dated February 28, 2019 has assigned work to CARE Advisory Research and Training Limited (CARE Advisory) with a specified scope of work. The scope and limitations of the assignment are noted below:

Scope and Limitations

The scope of work for CARE Advisory as per the award letter includes-

A. Computation of Cost of Equity as per CAPM Model.

This report is based on a desk-based research and the financial, economic and market data used in the estimation of various inputs/parameters required for computing the 'cost of equity for MIAL' is based primarily on publically available information and the accuracy and authenticity of the same has not been verified by CARE Advisory.

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EXECUTIVE SUMMARY

As part of the scope of work, CARE Advisory has computed cost of Equity for MIAL under CAPM Model. Following are the key parameters considered for computation of the cost of equity.

- **Risk Free Rate (R_f)** - has been estimated to be around **7.79%** for a 10 year government security issued by Government of India being average yield for Past 10 years (Source: FIMMDA and Investing.com).
- **Equity Market Risk Premium (EMRP)** - has been considered at **8.07%** which represents difference between Market Returns and Risk Free Rate.
- We have used **Capital Asset Pricing Model (CAPM)** for the computation of cost of equity.
 - **Asset β (unlevered β)** for the Airport sector has been considered as **0.67** (Median) based on analysis done by CARE Advisory (details are given in ensuing chapter).
 - **Equity β :** To arrive at the equity β , debt-equity ratio of 3.16:1 is considered (details are given in ensuing chapter). This works out to Equity β of **2.06**.
- **Post Tax Cost of Equity:** Based on CAPM, the post-tax cost of equity for MIAL works out to be **24.38%**.
- **Company Specific Risk Premium (CSRP)** - Considering the risk profile, the risk premium of 1.50% has been added to the Cost of Equity arrived as per CAPM. Hence concluded cost of Equity for MAIL works out to be **25.88% as of March 2019**.



COST OF EQUITY - ESTIMATION FOR MIAL

Background

- 'Cost of equity' is the return a firm theoretically pays to its equity investors, i.e., shareholders, to compensate for the risk they undertake by investing their capital.
- 'Cost of equity' is generally higher than the 'cost of debt' as equity holders take more risk than debt holders; including the fact that they are owners of residual earnings, after all obligations of the firm apart from those to equity shareholders are fulfilled. However, there is a significant variation in risk between firms in different sectors of the economy, which is explained by difference in business risk, resulting in differences in volatility of cash flows.
- In unregulated business the actual return on capital employed may or may not be equal to cost of capital; in regulated business scenarios, the required return or the cost of capital estimates become crucial in determining the tariff structure.



Methodology for estimation of cost of equity

In theory, there are various methods of estimating the cost of equity. Some of the methods are enlisted below –

- Capital Asset Pricing Model(CAPM)
- Fama French Model
- Arbitrage Pricing Model
- Build-up Model
- Bond Yield Plus Risk Premium

For the purpose of this exercise and as mandated by MIAL, we have used the CAPM approach.

CAPM is a model which is used to determine a theoretically appropriate required rate of return from an asset, if that asset is to be added to an already well-diversified portfolio, given that the asset has non-diversifiable risk. The model takes into account the asset's sensitivity to non-diversifiable risk (also known as systematic risk or market risk), often represented by the quantity beta (β) in the financial industry, as well as the expected return of the market and the expected return of a theoretical risk-free asset. The cost of equity based on the CAPM equation can be described as below –

Cost of Equity = Risk Free Rate (R_f) + Beta (β) * Equity Market Risk Premium (EMRP)

The RFR and the EMRP is the same for all investments in a market, but the β captures the investment's market risk exposure.

The approach and assumption of each component of this above equation as are as follows –

- **Risk Free Rate (R_f)**

Government Securities (G-Secs) can be reasonably classified as “risk-free” assets since the level of risk in investing in G-Secs is negligible. Therefore, we have considered an average rate of 7.79% as the risk-free rate being Average of month end closing price of 10 years G-Sec for past 10 years (April 2009 to March 2019) as of March 2019.

- **Beta (β)**

The β coefficient is a key parameter in CAPM. It measures the part of the asset's statistical variance that cannot be removed by the diversification provided by the portfolio of many risky assets, because of the correlation of its returns with the returns of the other assets that are in the portfolio. β can be estimated for individual companies using regression analysis against a stock market index.

An asset β (unlevered β) compares the risk of an unlevered company to the risk of the market. The unlevered β is the β of a company without any debt, and would remove the effects from financial leverage.

Normally, to arrive at β of any unlisted entities, β of comparable listed entities are considered as a proxy. However, no entities having major revenue from the Airport operations in India are listed. Therefore, we have considered β of some of the comparable Airports in emerging markets as proxy to β for MIAL.

Below Airports are considered to be comparable for MIAL for the purpose of computing beta:

Players Name	Country	No of Movements (2017)	Passengers Travelled (2017)	No of Runway
Guangzhou Baiyun International Airport	China	465,295	65,806,977	3
Xiamen International Airport	China	186,454	24,485,239	1
Shanghai International Airport	China	449,171	74,005,000	5
Malaysia Airports Holdings Berhad	Malaysia	398,719	58,554,627	3
Grupo Aeroport Del Sureste-B	Maxico	NA	31,052,569	9 Airports
Airports Of Thailand Plc	Thailand	833,082	133,116,907	6 Airports

CARE Advisory has arrived at the levered beta for each of the above companies by calculating 10 year's average of covariance of average monthly closing shares prices of respective companies to the average monthly closing price of indices of respective stock exchanges in which they are listed, as of March 2019.

The table below represent the **Levered β** for the set of comparable companies mentioned above:



Players Name	Country	Levered beta
Guangzhou Baiyun International Airport	China	0.81
Xiamen International Airport	China	0.77
Shanghai International Airport	China	0.79
Malaysia Airports Holdings Berhad	Malaysia	1.31
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Source: CNBC, Reuters, SET website, Industry sources

The above β represents equity beta which is arrived for the company based on its existing capital structure. To avoid the risks due to the capital structure of the individual companies, it is imperative to un-lever the equity beta to get the asset beta (β_a) using Miller's formula below:

$$\beta_a = \beta_e / (1 + (1 - \text{tax rate of the firm}) * \text{debt-equity ratio})$$

Players Name	Levered beta	D/E	Tax rate	Unlevered beta
Guangzhou Baiyun International Airport	0.81	0.06	25%	0.78
Xiamen International Airport	0.77	0.00	25%	0.77
Shanghai International Airport	0.79	0.23	25%	0.68
Malaysia Airports Holdings Berhad	1.31	1.25	24%	0.67
Grupo Aeroport Del Sureste-B	0.85	0.52	30%	0.62
Airports Of Thailand Plc	0.26	0.15	20%	0.23
Median	0.67			

Source: Financial statements of respective companies, wall street journal

To arrive at the equity β applicable for calculating cost of equity of the MIAL, we have re-levered it using the debt-equity ratio of **3.16:1** for the company being Debt to Equity Ratio as on 31/03/2019, based on the information provided by the company, as summarised below:

Capital Structure*	Amount (Rs.in crore)
Total Debt	6,273.50
Total Equity	1,988.00
Debt/ Equity (times)	3.16



*Source: As informed by the company. CARE Advisory has not received Provisional financials/Audited financials for the Year Ended 31/03/2019.

Re-levered beta of MIAL:

Particulars	Values
Unlevered Beta	0.67
D/E	3.16
Tax rate	34.94%
Re-levered beta for MIAL	2.06

- **Equity Market Risk Premium (EMRP)**

EMRP is the excess return that investing in equity market provides over a risk-free rate. This excess return compensates investors for taking on the relatively higher risk of the equity market. It is calculated as:

$$\text{EMRP} = \text{Equity Market Return (Rm)} - \text{Risk Free Rate (RFR)}$$

We have considered the EMRP for Indian markets to be at 8.07%.

For the purpose of ascertaining the equity market risk premium for Indian market, we have computed the Equity Market Return (Rm) for India of 15.86% which is arrived as 40 years CAGR between year-end closing price (starting from April 1979). It may be noted that only working days of BSE are considered while arriving the values as mentioned above.

From the above Returns, Risk Free Rate of 7.79% is deducted to arrive at the EMRP.

We believe, this method is more appropriate for arriving at the EMRP for India and hence we have taken this as the EMRP component in the CAPM equation used in the cost of equity estimation.

- **Company Specific Risk Premium (CSRP)**

Considering the risk profile of the company, we have added the CSRP of 1.50%. Brief note on CSRP is attached as Annexure.

- **Cost of Equity**

Based on the above, Cost of Equity for MIAL is computed as under:



Risk Free Rate (R_f) (Average yields of G-sec with 10 years maturity for the past 10 years till March 2019)	7.79
Market Returns (R_m) (40 year's CAGR of year-end BSE Sensex Closing)	15.86
Equity Market Risk Premium (EMRP) ($R_m - R_f$)	8.07
Re-levered Beta (β)	2.06
Cost of Equity [$R_f + (\text{EMRP} \times \beta)$]	24.38%
Add: Company Specific Risk Premium (CSRP)	1.50%
Concluded Cost of Equity for MIAL as on March 2019	25.88%





Report
On
Computation of 'Cost of Equity'
for
Mumbai International Airport Limited (MIAL)

May 2019

By:



CARE Advisory Research and Training Limited



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For the purpose of ascertaining the equity market risk premium for Indian market, we have computed the Equity Market Return (Rm) for India of **15.86%** which is arrived as 40 years CAGR between year-end closing price (starting from April 1979). It may be noted that only working days of BSE are considered while arriving the values as mentioned above.

From the above Returns, Risk Free Rate of 7.79% is deducted to arrive at the EMRP.

We believe, this method is more appropriate for arriving at the EMRP for India and hence we have taken this as the EMRP component in the CAPM equation used in the cost of equity estimation.

- **Company Specific Risk Premium (CSRP)**

Considering the risk profile of the company, we have added the CSRP of 1.50%. Brief note on CSRP is attached as Annexure.

- **Cost of Equity**

Based on the above, Cost of Equity for MIAL is computed as under:



Risk Free Rate (R_f) (Average yields of G-sec with 10 years maturity for the past 10 years till March 2019)	7.79
Market Returns (R_m) (40 year's CAGR of year-end BSE Sensex Closing)	15.86
Equity Market Risk Premium (EMRP) ($R_m - R_f$)	8.07
Re-levered Beta (β)	2.06
Cost of Equity [$R_f + (\text{EMRP} \times \beta)$]	24.38%
Add: Company Specific Risk Premium (CSRP)	1.50%
Concluded Cost of Equity for MIAL as on March 2019	25.88%

