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Tariff Authority for Major Ports

G No. 22

New Delhi,

20 January 2014

NOTIFICATION

In exercise of the powers conferred by Sections 48, 49 and 50 of the Major Port Trusts Act, 1963 (38 of 1963), the Tariff Authority for Major Ports hereby disposes of the proposal received from the Cochin Port Trust for fixation of Reference Tariff for Multi-Purpose Terminal at Q1 to Q3 at Mattancherry Wharf on BOT basis under the revised guidelines for Determination of Tariff for Projects at Major Ports, 2013, which were notified vide Notification No.TAMP/18/2013-Misc. dated 30 September 2013 vide Gazette No. 254 as in the Order appended hereto.

(T.S. Balasubramanian)
Member (Finance)

Tariff Authority for Major Ports
Case No. TAMP/46/2013-COPT

Cochin Port Trust

Applicant

QUORUM:

- (i). Shri. T.S. Balasubramanian, Member (Finance)
- (ii). Shri C.B. Singh, Member (Economic)

O R D E R

(Passed on this 19th day of December 2013)

The Ministry of Shipping (MOS) under cover of its letter No.PR-14019/16/2012-PG dated 31 July 2013 has issued 'Guidelines for Determination of Tariff for Projects at Major Ports, 2013' under Section 111 of the Major Port Trusts (MPT) Act, 1963 on 31 July 2013. In compliance of the policy directives issued by the (MOS) under Section 111 of the MPT Act, 1963, the said Guidelines were notified vide Notification No.TAMP/18/2013-Misc. in the Gazette of India on 8 August 2013, vide Gazette no.214. The said Guidelines are effective from 31 July 2013. Subsequently, the MOS has issued revised Guidelines for Determination of Tariff for Projects at Major Ports, 2013 under Section 111 of the Major Port Trusts Act and made effective from 9 September 2013.

2. In pursuance of the revised guidelines of 2013 issued by the MOS, the Cochin Port Trust (COPT) vide its letter dated 17 September 2013 has filed a proposal for fixation of the Reference Tariff for Multi-Purpose Terminal at Q1 to Q3 at Mattancherry Wharf on BOT basis through Public Private Partnership Model.

3. With reference to the proposal of the COPT, clause 2.2. of the revised guidelines of 2013 is reproduced below:

*"2.2. The Reference Tariff ("the Reference Tariff") for each commodity/category of commodities and each service/category of service or combination of service or services, as the case may be, shall be determined by TAMP for each Port based on a proposal from the concerned major Port. Such proposal shall contain the proposed Reference Tariff and "**Performance Standards**". The **Reference Tariff** will be the highest tariff fixed for that commodity in the concerned Major Port Trust under the 2008 Tariff Guidelines. In case no tariff has been fixed for that commodity at that Major Port Trust or if the highest tariff fixed for a particular commodity in the concerned major Port Trust does not represent the project proposed to be developed, then concerned Major Port Trust can propose to TAMP any other tariff fixed under 2008 Tariff guidelines in any other major Port Trust which is representative enough for that commodity giving detailed and sufficient justification. While adopting the Reference tariff, the tariff set under the Tariff Guidelines, 2008 shall be escalated to the extent of 60% of WPI per annum, as provided in the said guidelines for the period between 1st January of the year as prescribed in the relevant tariff order of TAMP under 2008 guidelines and 1st January of the subsequent relevant year when the Reference Tariff for the particular project in question is being notified. On receipt of the proposal, TAMP shall notify the Reference Tariff and Performance Standards within 15 days of receipt."*

4.1. The COPT has stated that it does not have any upfront tariff determined for cement, food grains, cars and other bulk cargo at its port. As brought out subsequently, the COPT has reported that Reference Tariff is not available in any other Major Port Trust which represents the proposed project in terms of similarity. The highlights of the proposal are as under:

- (i). The Mattancherry wharf is having 4 quays i.e. Q1, Q2, Q3 and Q4. The port is planning reconstruction of Mattancherry Wharf and has decided to develop Berths Q1 to Q3 as Multipurpose Terminal through PPP on Design, Build, Finance, Operate and Transfer basis.

- (ii). The Q1 to Q3 berths has a berth length of 410 m with back-up area of nearly 7.15 ha. There are facilities (like transit sheds and warehouses etc.) which would be handed over as a part of this project on “as is where is condition”.
- (iii). Due to the limitation of the turning circle, the vessel size that can be handled at the wharf has been limited to 180 m in length. The berth shall have adequate length for the simultaneous berthing of two vessels, one vessel of 180 m length and other vessel of 160 m length. As two vessels can be accommodated simultaneously, the total berth days available will be 730 (365*2).
- (iv). Cars, cement, food grains, timber and other dry bulk/ break bulk cargos are expected to be the major commodities that would be handled at the berth. However, the major traffic is expected only from Cement and Cars.
- (v). The upfront tariff calculations for cement and other general cargo are done based on the 2008 guidelines provided for Multi-Purpose Berth. There are no specific guidelines/ norms available for Ro-Ro type of facility in the 2008 guidelines. However, a similar project was approved by the Authority for Chennai Port Trust and a tariff order was notified on 15 October 2012. The upfront tariff for Ro-Ro facility is prepared and proposed based on similar lines.
- (vi). **Optimal capacity of the terminal:**
 - (a). Optimal capacity of the multipurpose terminal has been determined taking into consideration various components of the facility that will be required to be created, equipment and plant and machinery to be provided, productivity levels and utilization levels, as per the norms prescribed. Tariff shall be prescribed with reference to the optimal capacity of the terminal irrespective of any traffic forecast.
 - (b). In this project, as the berth would be shared by the bulk cargo vessels and Ro-Ro vessels, the formula for calculation of optimal capacity prescribed for multipurpose cargo terminal in the 2008 guidelines could not be applied as it is. In view of the same, it is prudent to calculate the berth days that would be occupied by the Ro-Ro vessels first. The optimal capacity for cement, foodgrain and other cargo is subsequently assessed based on the number of berth days available for these multipurpose cargo. [This is in line with the approach followed in the CHPT Order for fixation of upfront tariff for Ro-Ro cum multipurpose berth and multilevel car park approved on 17 August 2012]
 - (c). **Optimal Yard Capacity for Car Handling:**
 - (i). The storage area to the extent of 1.5 Ha is proposed to be developed for car parking, which is expected to accommodate about 1000 cars. Therefore, the number of ground slots is considered as 1000.
 - (ii). Since, it is not a multilevel car park, stack height is considered as 1 to accommodate only one car per car slot.
 - (iii). Surge factor is considered not relevant in this case and therefore is assumed at 1.
 - (iv). Average area for parking a car is considered as 12m². Over this, 25% margin is added towards access and circulation roads. Thus a total area of 15m² per car for parking at the yard is considered.

- (v). Smaller size car carriers are expected to be deployed for the coastal operations. The parcel size of vessel is assumed to carry 1000 Nos. Handling rate depends on the number of drivers engaged for the unloading operation. It is proposed to engage 10 drivers in two shifts of 12 hours each. The expected average turnover of a driver is 5 cars per effective working hour. Considering 20 working hours per day, total effective working time through two shifts, the handling rate per day is reckoned as 1000 Nos.
- (vi). COPT has not handled any substantial volume of cars in the past, hence average dwell time could not be arrived based on the past data. Generally, the cars are evacuated within a free period time only. Cochin Port has sufficient road infrastructure linkages for evacuation of cars. In view of the same, the average dwell time considered by COPT is 4 days. It is, however, relevant to state here that Chennai port handles large volume of car traffic. The average dwell time at CHPT is 4 days based on last few years' data.
- (vii). The optimal yard capacity for cars is estimated at 63,875 cars applying the formula prescribed in upfront tariff guidelines of 2008 for estimating the optimal yard capacity.
- (viii). Estimation of Berth days occupied by Vessels carrying cars-
The car handling rate is considered at 1000 cars per day as explained above. Additionally, it is estimated that around 3 hours (0.125 days) of time is required for berthing and de-berthing of a ship. The average parcel size of vessel is estimated to be around 1000 cars. No. of Berth Days required for car handling is thus arrived at 71.9 days as follows:

$$= \text{Optimal capacity of car} / \text{handling rate of cars} + 0.125 \text{ days} \times \text{No. of expected ships}$$

$$= 63,875 / 1000 + 0.125 \times 63,875 / 1000$$

$$= 71.9 \text{ Berth Days}$$
- (ix). The total berth days for 2 vessels that can be accommodated at Q1 to Q3 berth will be 730 days of which 71.9 berth days would be occupied by vessels bringing cars towards Ro-Ro facility.
- (d). **Optimal Capacity for handling cement, foodgrain and other cargo**
- (i). Optimal berth days for all other bulk cargo is arrived 439.10 days as given below:
Total Berth Days = (70% efficiency * total available days) – berth days for Ro-Ro operation

$$= 0.7 * 730 \text{ days} - 71.9 \text{ days} = 439.1 \text{ days}$$
- (ii). As per the traffic assessment carried out in the feasibility report, the type of cargo, estimated traffic, average parcel size, commodity-wise berth days and % share of different cargos are provided in the table below:

Particulars	Estimated Traffic (In lakh Tons)	Share of cargo in terms of tonnage	Parcel Size (Tons)	No. of Vessels	Handling Rate (TPD)	Total Berth Days* (Days)	Share of Berth Days
Cement	9.90	53%	15000	66	5000	206.3	46%
Wheat	4.35	23%	15000	29	7500	61.6	14%
Timber	3.28	18%	8000	41	2500	136.3	30%
Others	1.12	6%	8000	14	2500	46.6	10%
Total Tonnage	18.65	100%	-	150	-	450.8	100%

* Total berth days are arrived after considering 3 hours of additional time for each vessel for berthing and de-berthing activities.

- (iii). Total share of different cargos are considered in terms of the total number of days the cargo occupies berth.
- (iv). Estimated unloading rate for vessels carrying cement is considered as 5000 TPD. As per the details gathered from Gujarat Ambuja Cement Limited, the parcel size of cement carriers handled at their terminal is 15000 tons to 16000 tons. On an average 3 days effective working time is taken for unloading these vessels. Accordingly, handling rate for cement is considered at 5000 tons per day.
- (v). As per tariff guidelines of 2008, the handling rate for food grains should be considered as 10000 Tons/day for vessels of more than 30000 Tons parcel size and 7,500 Tons/day for lower parcel size. In the proposed project, the parcel size of vessels carrying food grains is estimated to be 15000 Tons. One Mobile harbour crane of maximum 64T capacity is proposed to be deployed. It would be possible to obtain an unloading rate of 7500 TPD for food grains with the help of the proposed equipment. Handy size bulk carriers are expected to be deployed for the coastal transport of wheat. Mobile Harbour Crane (MHC) of about 60T capacity is the ideal type of unloading equipment for handy size vessels. The proposed 64T capacity MHC has a rated output capacity of 800 tonnes per hour. Considering the average output at 60% of rated output and 16 hours effective working in a day, the handling rate works out to 7680 tons (800 x 0.60 x 16) say 7500 tons per day. This handling capacity matches with the projected bulk cargo potential of the terminal.
- (vi). The proposed Mobile harbour crane of 64T capacity would also be used for unloading timber logs and other break-bulk cargo. The handling rate is adopted at 2500 T/ day as per the norms prescribed in 2008 guidelines for other bulk cargo for a multipurpose cargo terminal.
- (e). With the above assumptions, the Optimal Capacity is calculated at 19.10 tonnes plus 63,875 units of cars per annum. Based on the individual share of cargo, the optimal capacity for each of the cargo type is indicated below:

Particulars	Optimal Capacity (In lakh Tons)	% of the Total Berth Occupancy
Cement	10.10	39.5%
Wheat	4.61	12.0%
Timber	3.29	34.4%
Others	1.10	
Total Tonnage	19.10	85.9%
Capacity for handling Cars	63,875 Cars	14.1%

Note: The % capacity of cars out of the total Optimal Capacity is estimated based on the berth occupancy for Ro-Ro operations. The remaining capacity (85.9%) is divided among the bulk cargo based on their individual berth occupancy.

- (vii). The COPT has entered in to 30 years agreement with M/s.Gujarat Ambuja Cement Ltd. for providing berth to their vessels carrying cement. The company would pump the cement using its own facilities from the vessels. Further, the backup area of Q1 berth has also been given on lease to the company and their captive cement storage and their packing unit is in operation now. In view of that, this backup area is not considered as a part of this project.

In view of the above, limited services would be required by the company as compared to other vessels which would require wider services including unloading, transportation, storage, bagging and packing. As per the feasibility report, there would be equal quantity of traffic for the existing facility of M/s.Gujarat Ambuja Cement Limited and for common user facility. Hence, the optimal capacity of cement is divided equally among the two categories of cement users. The optimal capacity of the terminal after incorporating the breakup of the two categories of the cement users is given below:

Particulars	Optimal Capacity (In lakh Tons)	% of the Total Berth Occupancy
Cement- Existing user	5.05	19.75%
Cement- Common User	5.05	19.75%
Wheat	4.61	12.0%
Timber	3.29	34.4%
Others	1.10	
Total Tonnage	19.10	85.9%
Capacity for handling Cars	63,875 Cars	14.1%

(viii). **Capital Cost Estimation:**

- (a). The total capital cost is estimated at ₹249.43 crores consisting of ₹86.71 crores for berth construction cost and ₹162.73 crores for cargo handling and storage services including miscellaneous cost estimated at 5% of the capital cost.

(b). Berth Construction Cost

The capital cost towards berthing service is estimated as given below:

Particulars	₹ in Crores
Berth Construction Cost	82.58
Other Costs (5% of the above)	4.13
Total Civil capital costs for Berthing facility	86.71

(c). Civil Construction Cost

The civil construction costs is estimated at ₹78.12 crores and its bifurcation given commodity-wise is tabulated below:

₹ in crores						
Civil Costs	Total	Cars	Cement- Common User	Cement- Existing	Food Grains	Other Cargo
General Costs -divided as per berth occupancy						
Connecting Bridges	2.80	0.39	0.55	0.55	0.34	0.96
Earth Pressure Relieving and Shore Protection arrangement	2.27	0.32	0.45	0.45	0.27	0.78
Foreshore road and footpath	0.77	0.11	0.15	0.15	0.09	0.27
Refurbishment of Roads and Drains	1.15	0.16	0.23	0.23	0.14	0.40
Construction of Security Compound wall	0.75	0.11	0.15	0.15	0.09	0.26
Total General Cost	7.74	1.09	1.53	1.53	0.93	2.67
Specific Costs						
Cost of Existing Buildings	17.72	2.55	2.82	0.63	10.61	1.10

₹ in crores						
Civil Costs	Total	Cars	Cement-Common User	Cement-Existing	Food Grains	Other Cargo
Refurbishment of Existing warehouses and other buildings	9.23	---	---	---	9.23	--
Development of Car parking area	3.46	3.46	--	---	--	--
Construction of flat type cement storage silo	39.96	---	39.96	---	---	--
Total Specific Cost	70.37	6.01	42.78	0.63	19.84	1.10
Total Civil Costs - Commodity Specific	78.12	7.10	44.31	2.17	20.78	3.77

(d). Cargo Handling Equipment Costs

The capital cost towards cargo handling equipment is estimated at ₹76.86 crores as tabulated below:

₹ in crores						
Mechanical & Electrical Costs	Total	Cars	Cement-Common User	Cement-Existing user	Food Grains	Other Cargo
General Costs - divided as per capacity of cargo						
General Power Supply and Illumination	2.31	0.32	0.46	0.46	0.28	0.79
Fire Fighting System	1.15	0.16	0.23	0.23	0.14	0.40
Specific Costs						
Cement Handling Equipment	44.07		44.07			
Bulk Cargo Handling Equipment	29.33				7.39	21.94
Total Mechanical & Electrical Costs	76.86	0.49	44.75	0.68	7.81	23.13

(e). Miscellaneous Costs:

As per the norms prescribed in 2008 guidelines, miscellaneous capital cost is estimated at 5% of the total project cost.

- (f). The total capital cost relating to civil, mechanical equipment and miscellaneous cost excluding the berth construction cost estimated at ₹162.73 crores is tabulated below cargo-wise:

(₹ in crores)

Costs	Total	Cars	Cement-Common User	Cement-Existing user	Food Grains	Other Cargo
Civil Costs	78.12	7.10	44.31	2.17	20.78	3.77
Cargo Handling Costs	76.86	0.49	44.75	0.68	7.81	23.13
Total costs	154.99	7.59	89.06	2.85	28.59	26.90
Miscellaneous (5%)	7.75	0.38	4.45	0.14	1.43	1.34
Total Costs	162.73	7.97	93.51	2.99	30.01	28.24

(ix). **Annual Operating cost:**

- (a). The operating cost is estimated adopting the norms and principles prescribed in the 2008 guidelines. [The power consumption, fuel consumption and basis for estimating license fee in estimating the operating cost is brought out in the subsequent paragraph on the revised proposal filed by the COPT and hence not reiterated here.]
- (b). The capital cost relating to civil construction and cargo handling equipment cost are bifurcated to different cargo group based on the berth occupancy. The operating cost like repairs and maintenance, depreciation, insurance, other costs linked to percentage of the capital cost are arrived commodity-wise as per the norms prescribed in the 2008 guidelines. Specific costs are allocated as per commodity-specific considerations.

(c). Summary of the operating cost estimated by COPT is tabulated below:

(₹ in lakhs)

Sl. No.	Particulars	Cars	Cement-Common User	Cement-Existing user	Food Grains	Other Cargo
(i).	Power					
	(a). Variable cost	32.20	181.30	8.80	47.60	65.90
	(b). Fixed cost	4.10	63.30	5.70	9.70	27.70
	Subtotal (i)	36.30	244.60	14.50	57.30	93.60
(ii).	Fuel	--	21.20	--	38.70	--
(iii).	Repairs and maintenance					
	(a). Civil Assets (1% of capital costs)	7.10	44.30	2.20	20.80	3.80
	(b). Mechanical Assets (5% of capital costs)	2.40	223.70	3.40	39.00	115.70
	Subtotal (iii)	9.50	268.10	5.60	59.80	119.40
(iv).	Insurance (1% of gross fixed asset value)	7.60	89.10	2.80	28.60	26.90
(v).	Depreciation					
	(a). Civil Assets (@ 3.34% p.a.)	23.70	148.00	7.20	69.40	12.60
	(b). Mechanical & Electrical Assets (@ 10.34% p.a.)	5.00	462.70	7.10	80.70	239.20
	Subtotal (v)	28.80	610.70	14.30	150.10	251.80
(vi).	Other Expenses (5% of gross fixed asset value)	37.90	445.30	14.20	142.90	134.50
(vi).	License Fee	52.40	60.80	14.30	48.70	24.90
	Total Operating Cost	172.50	1739.70	65.80	526.10	651.10

(x). The port has considered 16% ROCE.

(xi). **Apportionment of Annual Revenue Requirement (ARR):**

- (a). The guidelines for multipurpose berth specify 90% of the total estimated revenue requirement to be apportioned to handling charge, 5% each towards storage charge and miscellaneous charges. The same is adopted for bulk cargo-cement (common user), food grains and other cargos.
- (b). For Ro-Ro facility, in the feasibility report and study it is observed that there will be little scope for cars remaining beyond free period and attracting miscellaneous services. Therefore for Ro-Ro operations, it is proposed to apportion 98% of the estimated revenue requirement from car handling services towards composite handling charge, 1% each towards storage charge and miscellaneous charge.
- (c). As regards cement, the vessels carrying cement for the existing facility of M/s.Gujarat Ambuja Cement Ltd. would not be stored or would not attract any other miscellaneous charges as it would be directly pumped to the storage area allotted to them separately. Hence, it is proposed to apportion 100% of the estimated revenue requirement to the cement handling charges for the existing cement facility.

- (d). Accordingly, the port has proposed to apportion ARR for various cargo items as given below:

Tariff Group	Percentage of total revenue allocated				
	Cars	Cement-Common User	Cement-Existing user	Food Grains	Others
Cargo Handling Charges	98	90	100	90	90
Storage charges	1	5	0	5	5
Miscellaneous charges	1	5	0	5	5

- (xii). The ARR is assessed as sum of total operating cost and 16% ROCE cargo-wise and is apportioned towards the cargo handling, storage and miscellaneous charges as tabulated below:

Particulars	Unit	Total	Cars	Cement-Common User	Cement-Existing user	Food Grains	Others
Optimal Capacity	Units/ MTPA		63875	0.507	0.507	0.446	0.451
Operating Costs	₹ Lakh	3155.20	172.50	1739.70	65.80	526.10	651.10
16% ROCE	₹ Lakh	2603.80	127.50	1496.30	47.90	480.20	451.90
Total Revenue Requirement	₹ Lakh	5759.00	300.00	3236.0	113.70	1006.30	1103.00
Apportionment of Revenue Requirement							
Cargo Handling Charges	₹ Lakh	5218.50	294.0	2912.40	113.70	905.70	992.70
Storage charges	₹ Lakh	270.20	3.00	161.80	0.0	50.30	55.10
Miscellaneous charges	₹ Lakh	270.20	3.00	161.80	0.0	50.30	55.10

- (xiii). (a). For berth hire services, the Annual Revenue Requirement (ARR) is assessed at ₹1519.20 lakhs considering 1% of capital cost relating to berthing service as operating and maintenance cost, ₹45.20 lakhs toward annual dredging cost and ROCE @ 16%.
- (b). As regards annual maintenance dredging cost estimated at ₹45.20 lakhs per annum in the estimated ARR, port has submitted that no increase in depth is contemplated. Hence no capital dredging is involved in the present project. Based on the past performance details of the port channels the average depth of annual siltation assessed is 3.0 m. Therefore, there would be a need to carry out annual dredging regularly. The estimated annual maintenance dredging quantity is 64,500 Cu.m. The estimated cost of annual maintenance dredging would be ₹45,15,000/- @ ₹70.00 per Cu.m. Hence, the same is considered in the revenue requirement.
- (c). The port has furnished detailed working to arrive at the proposed berth hire of ₹1.55 per GRT per hour or part thereof for foreign going vessel and ₹0.93 per GRT per hour or part thereof for coastal vessel.
- (xiv). The COPT has sought approval of the following Reference Tariff in its proposed Reference Tariff Schedule:

(A). Berth Hire

Unit	Foreign going vessel (in ₹)	Coastal vessel (in ₹)
Per GRT per hour or part thereof	1.559	0.935

(B). Cargo Handling Charges

(I). Car

Sl. No.	Tariff charges	Unit	Foreign going cargo (in ₹)	Coastal cargo (in ₹)
(i).	Handling Charges	Per car / vehicle	742.3	445.3
(ii).	Storages charges beyond 5 days free period	Rupees per car per day or part thereof		
	(a). First five days after expiry of free period		16.7	
	(b). 6 th day to 10 th day after expiry of free period		25.0	
	(c). From 11 th day onwards		33.4	
(iii).	Miscellaneous charges	Per car / vehicle	4.70	

(II). Bulk Cargo Handling

Sl. No.	Tariff charges	Unit	Foreign going cargo (in ₹)		Coastal cargo (in ₹)
(i).	Handling Charges	Rate in Rupees per Ton			
	(a). Cement- Common User		926.70		555.90
	(b). Cement- Existing		--		22.40
	(c). Food Grains		327.60		196.50
	(d). Other Bulk Cargo		244.60		146.70
(ii).	Storages charges beyond 5 days free period	Rupees per car per day or part thereof	Cement	Food Grains	Other bulk Cargo
	(a). First five days after expiry of free period		113.44	6.34	43.47
	(b). 6 th day to 10 th day after expiry of free period		170.16	9.50	65.21
	(c). From 11 th day onwards		226.87	12.67	86.95
(iii).	Miscellaneous charges	Per metric ton	31.91	11.28	12.23

4.2. The COPT has submitted the proposed Scale of Rates (SOR) and the feasibility report along with the proposal. The port has also furnished the names and address of the short listed applicants and prospective users along with the proposal.

5.1. On preliminary scrutiny of the COPT dated 17 September 2013, it was observed that the COPT has proposed two separate set of rates for existing cement user and common user of cement. This was not found to be in line with the provision stipulated in 2013 guidelines and hence the proposal of COPT dated 17 September 2013 was returned to the port vide our letter dated 24 September 2013 along with our observation and the port was advised to file revised proposal strictly in compliance with the 2013 guidelines.

5.2. In this connection, the COPT vide its letter dated 25 September 2013 has responded on the points observed vide our letter dated 24 September 2013. A summary of the points observed by us in the COPT proposal and response of COPT thereon are tabulated below:

Sl. No.	Points observed by us	Response of COPT
(i).	(a). It is understood from para 4.17 of the proposal of COPT that of the three berths Q1 to Q3 for which the reference tariff is to be fixed, the COPT has entered into an Agreement for a period of 30 years with M/s. Gujarat Ambuja Cement Limited (GACL) and provided to GACL the berth no. Q1 along with back up area for providing captive cement handling, storage	(i). COPT had allotted a land area of 2.77 acres behind Q-1 berth of Mattancherry Wharf to M/s.Gujarat Ambuja Cements Ltd. (name changed to M/s.Ambuja Cements Ltd.) in 1998 on lease for a period of 30 years for setting up cement unloading and packaging terminal and installation of a pneumatic unloading system. Later, in 2001 it has entered into

	and packing unit. The COPT has stated that the cement handling facility by GACL is already in operation at the port.	MOU with the company for installation of cement terminal in the leased area. The clauses in the MOU deal with operation of the terminal, MGT applicable, use of Q-1 berth, charges to be paid to the port as per Scale of Rates prevailing from time to time for the services availed, security deposit, etc. A copy of the MOU is furnished.
	(b). Though the back area of Q1 berth is excluded from the purview of the proposal, as per para 4.19 of the proposal, the Optimal capacity of 19.10 lakh tonnes determined by the COPT for arriving at the Reference tariff for the proposed facility to be developed on PPP mode under 2013 guidelines includes the optimal capacity of 5.05 lakh tonnes which pertains to the existing user (i.e. GACL) for handling cement. Moreover, the estimation of capital costs and operating costs also reckons with the capital cost and the cost for operation of the berth given to GACL.	(ii). M/s. Ambuja Cements Ltd. is permitted to have receipt facility for cement at Q-1 berth without giving any exclusivity. Q-1 berth remains at the disposal of the port as a common user facility. However, as per the MOU, in return for the MGT provision, vessels carrying cement for M/s.Ambuja are getting berthing priority at Q-1.
	(c). Moreover, it is seen that the COPT has proposed two set of Reference Rates for handling of cement - one for existing user at ₹22.40 per tonne (for Coastal cargo) and ₹555.90 per tonne (for coastal cargo) for common user.	(iii). The Q-1 berth is currently dilapidated and cannot take the weight of a crane. It may not last long and needs to be rebuilt to ensure continued operation of M/s.Ambuja Cements Ltd.
(ii).	As per clauses 1.4. of Revised Tariff Guidelines of 2013, the Reference Tariff to be notified by TAMP following the 2013 guidelines is applicable for the projects under BOT/ BOOT or any other arrangement for Private Sector Participation (PPP Projects) for which RFPs are issued after the date of issue of these guidelines. From the reading of clause 2.5. of the tariff guidelines it is clear that the Reference Tariff notified by TAMP has to be included in the bid document based on which the operators will bid for the PPP project. The existing user of the facility or where the port has already entered into a separate agreement are not governed by the tariff guidelines of 2013 as per stipulation in clause 1.4. The tariff guidelines of 2013 does not envisage notification of Reference Tariff for existing user with whom the port has already entered into an Agreement. Thus, the proposal of the COPT which includes the optimal capacity, capital cost and operating cost and the facilities already offered by the port to GACL under separate Agreement between the port and the GACL for fixation of Reference Tariff for the proposed Multipurpose Terminal at Q1 to Q3 is not in line with the provisions stipulated in the tariff guidelines of 2013.	(iv). In view of the position, the port has proposed to include additional capital cost and operating cost to be incurred at Q-1 berth also in the project. The cargo of M/s.Ambuja is also included in the traffic forecast and optimal capacity of the project. (v). The port has proposed separate reference tariff for handling charges for cement in respect of M/s.Ambuja and common user facilities based on the capital and operating expenditure to be incurred by the BOT operator for establishing cement storage and handling facility, i.e. in the tune of ₹93.51 crores for common user facility and ₹2.99 crores for augmenting the existing facility for M/s.Ambuja. Hence, two rates for handling cement i.e. ₹22.40 per ton applicable to M/s.Ambuja and ₹555.90 per ton applicable to common user is specified in the tariff proposal. Once the project is implemented, M/s.Ambuja will enjoy better facility created through the project.
(iii).	In view of the above position, the proposal filed by the COPT in the present form cannot be taken up for processing and may be treated as returned.	(vi). Considering the above clarifications, the port has requested to review its decision to treat the proposal of the port as returned.

6. On examining the reply furnished by COPT dated 25 September 2013, it was observed that the COPT had still not justified the deviation from the 2013 guidelines pointed out in our letter dated 24 September 2013. Hence, a letter was again addressed to COPT vide our letter dated 30 September 2013. The COPT vide its letter dated 1 October 2013 responded. The points observed and query raised in our letter dated 30 September 2013 and the response of COPT vide its letter dated 1 October 2013 are tabulated below:

Sl. No.	Queries raised by us	Response of COPT
(i).	As per clause 1.4. of Revised Tariff Guidelines of 2013, the Reference Tariff to be notified by TAMP following the 2013 guidelines is applicable for the projects for Private Sector Participation (PPP Projects) for which RFPs are issued after the date of issue of these guidelines and not for existing berth already under operation like the berth being operated by Gujarat Ambuja Cements Ltd. (GACL). The COPT is requested to give the reference of the relevant clause of the revised tariff guidelines of 2013, under which the proposal of the COPT for fixation of Reference tariff for existing operator at Q1 berth being operated based on a separate agreement entered by the port and the GACL can be considered. Also, the relevant clause in the 2013 guidelines which allows fixation of two sets of Reference tariff for the same cargo (i.e. cement) for the existing GACL at ₹22.40 per tonne (for Coastal cargo) and ₹555.90 per tonne (for coastal cargo) for other common users may be indicated. If the COPT is of the view that reference to the relevant clause under 2013 guidelines sought in para 2.2 cannot be drawn, the COPT may examine whether the COPT can file a modified proposal for fixation of Reference Tariff for the other multipurpose berths Q2 and Q3 excluding Q1 berth.	(i). Q1 berth is being used by various users including M/s.Gujarat Ambuja Cements Ltd. (GACL). The usage of GACL cargo is 40% of the capacity of the Q1 berth. Hence the COPT has structured the project of Q1-Q3 considering the usage of the GACL. (ii). Q1-Q3 berth is 410 mtrs. This can accommodate only 2 vessels at a time. Separating Q1 berth and restricting the project will accommodate only one ship at a time. This will significantly reduce the project capacity and will not be capable of handling the projected throughput. (iii). Berth hire will be same for all users including GACL. (iv). The project envisages investment in common user cement bagging plant. As GACL has invested in its cement bagging plant two rates for handling are proposed. Therefore, when a user uses bagging facility he will pay ₹555.90 per MT for coastal cargo apart from berth hire. Since GACL has its own bagging plant, it will pay ₹22.40 per MT apart from berth hire. (v). The above position does not amount to prescribing two different rates or giving preferential treatment to GACL. (vi). In view of the above, the COPT has requested to reconsider the decision of returning the proposal and has also requested to issue notification for notifying the rates.

7.1. In view of the further clarifications furnished by the COPT as brought out above, the proposal dated 17 September 2013 was registered as tariff case on 3 October 2013 and taken on consultation.

7.2. In accordance with the consultative procedure prescribed, a copy each of the COPT proposal dated 17 September 2013 along with Feasibility Report, our letters to COPT dated 24 September 2013 and 30 September 2013 and the response of the COPT received vide its letters dated 25 September 2013 and 1 October 2013 was forwarded to the concerned users/ user organisations and the shortlisted applicants forwarded by the COPT for their comments by 13 October 2013. The comments received from the users were forwarded to the COPT as feedback information. The COPT has responded on the comments of the Indian National Shipowners' Association vide its letter dated 21 October 2013 and on the comments of IMC Limited vide its letter dated 6 November 2013.

8.1. The Ministry of Shipping (MOS) convened a meeting on 8 October 2013 at New Delhi vide its letter No.8(13)/2013-TAMP dated 4 October 2013 to discuss the pending tariff cases of the COPT. One of the tariff cases discussed was the proposal received from the COPT for fixation of Reference Tariff for multipurpose cargo berth nos.Q1 to Q3. The meeting was presided over by Advisor (MOS) and attended by Joint Secretary (Ports), Member (Finance) of TAMP, Secretary (I/c) and Director of TAMP, Chairman (COPT) and FA & CAO (COPT). Though no minutes of the said meeting are received by us, it is relevant to bring out the following points that emerged during the meeting:

- (i). It was pointed out to the COPT that its proposal envisages fixation of two sets of Reference Tariff for cement handling i.e. one is for existing user and another Reference Tariff is proposed for common user. It was reiterated to the COPT that the 2013 guidelines do not allow fixation of two sets of Reference Tariff for existing user and common user.
- (ii). In this context, the COPT agreed to file a revised proposal segregating the tariff for cement into two activities viz. (a). for ship to silo and (b). for packing and forwarding cement based on services proposed to be rendered without referring to existing user or common user in the Reference Tariff Schedule.

8.2. Since COPT did not file the revised proposal as agreed by them at the meeting with the MOS, the COPT was requested vide our letter dated 14 October 2013 to file the revised proposal immediately. Considering paucity of time available for disposing the proposal under 2013 guidelines, the COPT was also requested to simultaneously forward its revised proposal to the user/user association/ short listed applicants as per list forwarded under cover of our letter dated 4 October 2013 with a request to forward their comments, if any, to us and to COPT in a week's time from the date the revised proposal is filed by the COPT. The COPT was also requested to furnish its comments thereon on the comments of user/user association/ short listed applicants in a week's time thereafter.

9.1. The COPT has vide its letter dated 15 October 2013 filed its revised proposal. The highlights of the revised proposal are as under:

- (i). The COPT has maintained the overall background of the proposal as in its original proposal dated 17 September 2013 and hence not traversed again.

(ii). **Optimal Capacity:**

The approach adopted for assessing the optimal capacity of the terminal with reference to cars and multipurpose cargo is retained by COPT as assessed in the original proposal. As regards cement, the COPT has assessed the optimal capacity without referring as existing user and common user. Accordingly, the optimal capacity of the terminal assessed in the revised proposal is as follows:

Particulars	Optimal Capacity (In lakh Tons)	% of the Total Berth Occupancy
Cement	10.10	39.5%
Wheat	4.61	12.0%
Timber	3.29	34.4%
Others	1.10	
Total Tonnage	19.10	85.9%
Capacity for handling Cars	63,875 Cars	14.1%

Note: The % capacity of cars out of the total Optimal Capacity is estimated based on the berth occupancy for Ro-Ro operations. The remaining capacity (85.9%) is divided among the bulk cargo based on their individual berth occupancy. Timber is included in the other dry bulk cargo.

(iii). **Capital cost:**

The total capital cost is estimated at ₹249.43 crores consisting of ₹86.71 crores for berth construction cost and ₹162.73 crores for cargo handling services including miscellaneous cost estimated at 5% of the capital cost as estimated in the original proposal. The only modification done in the revised proposal is that the port has furnished the capital cost relevant for cement handling in totality without referring it to existing/ common user. The estimates of capital cost for berthing, cargo handling and miscellaneous capital cost is brought out hereunder for ease of reference:

(a). Capital cost for berthing facilities:

The capital cost towards berth hire is as follows:

Capital Costs- towards Berth facility	₹ in Crores
Berth Construction Cost	82.58
Other Costs (5% of the above)	4.13
Total Civil Costs for Berthing facility	86.71

Note: Cost of berth construction is inclusive of contingency, Engg. & PMC, service tax and environment management cost.

(b). Capital cost for Cargo handling activities:

The overall capital cost towards handling cars, cement, food grains and other bulk cargo is retained at ₹78.12 crores and divided into four categories based on the share of berth occupancy days of respective cargo group, as stipulated in the guidelines. As stated earlier, the only modification done by COPT in the revised proposal is with reference to cement. In the revised proposal, the COPT has assessed the overall capital cost for handling cement instead of its original proposal estimating the capital cost for existing user and common user. The civil construction cost and handling equipment cost estimated by the COPT in the revised proposal is as given below:

(i). **Civil Construction Cost:**

The civil cost towards different commodities is estimated as provided in the table below:

(₹ in crores)					
Civil Costs	Total	Cars	Cement	Food Grains	Other Cargo
Total Costs - apportionment as per berth occupancy					
Connecting Bridges	2.80	0.39	1.11	0.34	0.96
Earth Pressure Relieving and Shore Protection arrangement	2.27	0.32	0.90	0.27	0.78
Foreshore road and footpath	0.77	0.11	0.31	0.09	0.27
Refurbishment of Roads and Drains	1.15	0.16	0.46	0.14	0.40
Construction of Security Compound wall	0.75	0.11	0.30	0.09	0.26
Specific Costs					
Cost of Existing Buildings	17.72	2.55	3.45	10.61	1.10
Refurbishment of Existing warehouses and other buildings	9.23			9.23	
Development of Car parking area	3.46	3.46			
Construction of flat type cement storage silo	39.96		39.96		
Total Civil Costs- Commodity Specific	78.12	7.10	46.48	20.78	3.77

- (ii). Cargo Handling Equipment Costs:
The mechanical & electrical costs are considered under Cargo Handling Equipment Costs and the details of the same are provided in the table below:

(₹ in crores)

Mechanical & Electrical Costs	Total	Cars	Cement	Food Grains	Other Cargo
General Costs -divided as per berth occupancy					
General Power Supply and Illumination	2.31	0.32	0.91	0.28	0.79
Fire Fighting System	1.15	0.16	0.46	0.14	0.40
Specific Costs					
Cement Handling Equipment	44.07		44.07		
Bulk Cargo Handling Equipment	29.34			7.39	21.94
Total Mechanical & Electrical Costs	76.86	0.49	45.43	7.81	23.13

Note: The total costs are distributed among different cargos in terms of their berth occupancy. The specific costs are allocated as per commodity-specific considerations.

- (iii). Miscellaneous Costs:
As per the norms in Guidelines of 2008, miscellaneous cost is estimated at 5% of the total project cost.

- (iv). Total Capital Costs for cargo handling activity:

(₹ in crores)

Costs	Total	Cars	Cement	Food Grains	Other Cargo
Civil Costs	78.12	7.10	46.48	20.78	3.77
Cargo Handling Costs	76.86	0.49	45.43	7.81	23.13
Miscellaneous	7.75	0.38	4.60	1.43	1.34
Total Costs	162.73	7.97	96.51	30.01	28.24

- (iv). **Operating cost:**

- (a). The port has stated that in the absence of separate norms for a RoRo terminal, the norms for a multipurpose berth has been adopted in the estimation of operating costs.
- (b). The norms prescribed in the upfront tariff guidelines of 2008 for a multipurpose berth for estimation of power and fuel cost is with reference to the handling equipments envisaged to be deployed for cargo operations. Car handling activity does not involve deployment of any handling equipment whereas, bulk cargo handling activity would require use of crane and/or pay loader.
- (c). Power cost:
- (i). The power consumption for general illumination is estimated at 2.4 lakh units/ annum per hectare adopting the norms prescribed in the 2008 guidelines for a Liquid bulk terminal, since the norms prescribed for multipurpose berth do not prescribe norms with reference to general area lighting.
- (ii). For cement bagging, the port has estimated power consumption of 4 units/ tonne and hence for 50% of the optimal capacity of cement availing bagging facility, the power cost is estimated for 20 lakh units/ annum.

- (iii). For MHC, the port has assumed power consumption of 250 units/ hour for 16 hours of operation in a day for each of the cargo categories viz. food grains and other cargo. The total units thus estimated for optimal capacity is 2.5 lakh units for foodgrain and 7 lakh units for other cargo.
- (iv). Apart from this, port has also considered the fixed power cost based on fixed KVA required for general illumination, MHC and cement bagging plant respectively.
- (v). The unit rate of power adopted by COPT is ₹7.20/ unit. The port has furnished detailed working of power consumption and power cost thereof.

(d). Fuel cost:

- (i). Dumpers of 16 MT Capacity and Pay loaders 5 MT Capacity is proposed for food grains handling.

Items	Working Hours per equipment for Food Grains Handling based on berth days (a)	No. (b)	Fuel requirement (Ltrs per Hour per Equipment) (c)	Unit Cost of Diesel (₹ Per Ltr) (d)	Total Fuel Cost (₹ Lakh) =a*b*c*d
Dumpers	928	4	6.0	56.4	12.6
Pay loaders (For Stacking during ship operation)	928	2	8.0	56.4	8.4
Pay Loaders (Truck Loading Operation)	4,600 (Based on Cargo Throughput @100 Tons / hr / loader)	1	8.0	56.4	20.8
Total					41.8

- (ii). Pay Loader with capacity of handling 100 Tons/ hr/ loader are proposed for the cement handling considering the optimal capacity of 0.5 MTPA.

Items	Working Hrs for handling Cement at Bagging Unit with 5 Lakh Tons capacity (a)	Fuel requirement (Ltrs per Hour) (b)	Unit Cost of Diesel (₹ Per Ltr) (c)	Total Fuel Cost (₹ Lakh) =a*b*c
Pay Loaders	5,000 (Based on Cargo Throughput @100 Tons / hr / loader)	8	56.4	22.6

- (iii). In the revised proposal, the port has updated the unit cost of fuel at ₹56.40/ litre instead of ₹53.10/ litre estimated in the original proposal.

- (e). Other operating and maintenance cost is estimated adopting the norms prescribed in the 2008 guidelines for multipurpose cargo terminal.

- (f). License fee is estimated for each cargo commodity as follows:

	Cars	Cement	Food Grains	Others	Common
Total Area (Ha)	1.5	1.65	1.4	-	2.6
Details of Area	Car Parking Area	Silos for storage of cement	Three warehouses and two sheds		Common Area
Total Area after apportionment of common area in line with berth days	1.86	2.67	1.73	0.89	
License Fees (₹ Lakh) (Base rate of ₹28.13 lakhs / Ha)	52.4	75.1	48.7	24.9	

- (g). For cement handling the port has shown the overall operating cost. It has subsequently segregated the operating cost relating to cement into two main activities viz. ship to silo and transfer and packing and forwarding.
- (h). A summary of the revised operating cost estimates furnished by the port are given below:

(₹ in lakhs)

Sl. No.	Particulars	Cars	Cement	Food Grains	Other Cargo
(i).	Power				
	(a). Variable cost	32.20	190.10	47.60	65.90
	(b). Fixed cost	4.10	69.00	9.70	27.70
	Subtotal (i)	36.30	259.10	57.30	93.60
(ii).	Fuel	--	22.60	41.80	--
(iii).	Repairs and maintenance				
	(a). Civil Assets (1% of Capital costs)	7.10	46.50	20.80	3.80
	(b). Mechanical Assets (5% of Capital costs)	2.40	227.20	39.00	115.70
	Subtotal (iii)	9.50	273.60	59.80	119.40
(iv).	Insurance (1% of Gross Fixed Asset Value)	7.60	91.90	28.60	26.90
(v).	Depreciation				
	(a). Civil Assets (@ 3.34% p.a.)	23.70	155.20	69.40	12.60
	(b). Mechanical & Electrical Assets (@ 10.34% p.a.)	5.00	469.80	80.70	239.20
	Subtotal (v)	28.80	625.00	150.10	251.80
(vi).	Other Expenses (5% of Gross Fixed Asset Value)	37.90	459.50	142.90	134.50
(vi).	License Fee	52.40	75.10	48.70	24.90
	Total Operating Cost	172.50	1806.90	529.10	651.10

- (v). The return on capital employed is considered at 16% on the estimated capital cost of the project.
- (vi). Apportionment of Annual Revenue Requirement:
- (a). In the original proposal the COPT had apportioned 98% of the estimated revenue requirement from car to cargo handling charge and 1% each towards storage and miscellaneous charge. In the revised proposal dated 15 October 2013, the port has submitted that there would be little scope for cars remaining beyond free period and attract any miscellaneous services. In view of the same, the apportionment of the total revenue requirement between handling charge and storage charges are proposed to be modified to 99% and 1% respectively.
- (b). In the original proposal the COPT had apportioned 90% of the estimated revenue requirement from cement-common user to cargo handling charge and 5% each towards storage and miscellaneous charge. In the revised proposal dated 15 October 2013, the COPT has submitted that in case of cement, environmental concerns and related cleaning, for which Miscellaneous Charges are levied are generally confined to the silos, and not much applicable for the berth operations due to the cargo being pumped under mechanized system as in the case of Oil with little room for spillages. Therefore, the apportionment of the total revenue requirement between handling charge and storage charges are proposed at 95% and 5% respectively.

- (c). The apportionment of ARR for food grains and Other is retained followed in the original proposal done which is as per the norms prescribed in the 2008 guidelines.
- (d). Accordingly, the Annual Revenue Requirement is proposed to be apportioned between the cargo handling charges, storage charges and miscellaneous charges in the following ratio for various cargo items:

Tariff Group	Percentage of total revenue allocated			
	Cars	Cement – Packing and forwarding	Food Grains	Others
Cargo Handling Charges	99	95	90	90
Storage charges	1	5	5	5
Miscellaneous charges	0	0	5	5

- (vii). Based on the above, the revised Annual Revenue Requirement estimated from cargo handling activity is as below:

(₹ in lakhs)

Particulars	Total	Cars	Cement	Food Grains	Others
Operating Costs	3159.60	172.50	1806.90	529.10	651.10
Capital Cost	16272.90	796.80	9650.50	3001.40	2824.20
Return on capital employed (16% on capital cost)	2603.66	127.49	1544.08	480.22	451.87
Total Annual Revenue Requirement (ARR)	5763.4	300.0	3351.0	1009.4	1103.0
Apportionment of ARR					
Cargo Handling Charges	5381.50	297.00	3183.40	908.40	992.70
Storage charges	276.10	3.00	167.50	50.50	55.10
Miscellaneous charges	105.60	0.00	0.00	50.50	55.10

- (viii). The port has assessed the revenue requirement from berth hire at ₹1519.20 lakhs which is same as in its original proposal. The basis for estimation is given below:

- (a). Port has estimated 1% of the berth construction cost as other operating cost as per the norms prescribed in the 2008 guidelines.
- (b). The port has reiterated its submission for estimating maintenance dredging cost at ₹45,15,000/- and considered the same in the estimation of annual revenue requirement.
- (c). The Annual Revenue Requirement from berth hire is estimated as follows:

Sl. No.	Particulars	₹ in lakhs
(i).	Capital Cost	
(a).	Total Berth Construction Cost	8670.7
(b).	16% Return on the Capital Cost	1387.4
(ii).	Operating Costs	
(a).	Other Operating Costs (1% of capital Costs)	86.7
(b).	Annual dredging costs	45.2
(iii).	Total Revenue Requirement	1519.2

- (d). The port has furnished detailed working to arrive at the proposed berth hire of ₹1.55 per GRT per hour or part thereof from foreign going vessel and ₹0.93 per GRT per hour or part thereof from coastal vessel.

(ix). As regards to cement handling, the COPT in the revised proposal has made the following submissions:

- (a). The Cochin Port Trust has entered into an Agreement with M/s.Gujarat Ambuja Cement Limited (GACL) for providing berth to their vessels carrying cement for a period of 30 years at Q1 berth. Further, the backup area of Q1 berth has also been given on lease to M/s.Gujarat Ambuja Cement Ltd. and their captive cement storage and packing unit is in operation now. This backup area of GACL is not considered as a part of this project.
- (b). Based on the fact given above, Q1 berth will be utilized by GACL and other cement vessels as a common berth. However, Gujarat Ambuja Cement Limited will only use berthing and handling services for cement transfer, from ship to silo. GACL will not avail storage or packing facility envisaged in the project for cement handling. Hence, as cement will be pumped directly from ship to the storage area allotted to them separately, cement handling by GACL will not attract storage or miscellaneous charges. While other vessels carrying cement would require wider services including unloading, bagging and packing, storage etc.
- (c). In view of the above, a differential rate needs to be prescribed to the users based on the services required by them.
- (d). In order to calculate the appropriate tariff for cement users utilizing different services, cargo handling charges has been bifurcated into the following:
 - (i). Handling charges from ship to silo
 - (ii). Handling charges for packaging & forwarding
- (e). The port has furnished segregated capital cost, operating cost and revenue requirement from cement handling into these two cement handling activities. As per the statement furnished by the COPT, of the total Annual Revenue Requirement for cement handling estimated at ₹3351.00 lakhs, ₹191.52 lakhs is apportioned to the activity (a). transfer of cement from ship to silo and ₹3159.45 lakhs to the activity (b). for packing and forwarding.

For arriving at the proposed tariff for cement handling, the COPT has apportioned 95% of the total revenue requirement from cement handling activity i.e. ₹3183.40 lakhs and apportioned ₹191.50 lakhs towards cement transfer from ship to silo and balance ₹2991.90 lakhs is apportioned towards recovery from packaging and forwarding activity.

- (f). Based on the traffic study and considering the capacity of GACL, only 50% of the optimal capacity of cement is expected to utilize the packaging and forwarding services.
- (g). It is estimated that the demand for cement in the hinterland of Kerala would be met mainly through coastal cargo. In view of the same, 95% of the cement cargo is considered to be coastal cargo and only 5% is expected to be foreign cargo. The COPT has furnished following working in support of the rates proposed for cement handling:

Estimation of Revenue Requirement	Unit	Cement
Revenue Requirement	₹ Lakhs	3351.0
Cement Handling	₹ Lakhs	3183.4
Transfer from ship to silo -share in cargo handling	In %	6.0%
Transfer from ship to silo	₹ Lakhs	191.5
Packaging & Forwarding -share in cargo handling	In %	94.0%
Packaging & Forwarding	₹ Lakhs	2991.9

Estimation of Revenue Requirement	Unit	Cement
Handling Rate (foreign charges assumed to be 66.7% higher than coastal charges)		
Share of coastal to foreign cargo	%	95/5
(a). Optimal Capacity for cement	Units/ MTPA	1.01
(b). 50% of the Optimal Capacity of cement availing packing, bagging and forwarding services	Units/ MTPA	0.505
Charges for Transfer from ship to silo		
Foreign	₹ Per Ton	30.59
Coastal	₹ Per Ton	18.35
Charges for Packaging & Forwarding		
Foreign	₹ Per Ton	955.81
Coastal	₹ Per Ton	573.37

(x). Storage calculation:

- (a). As per the guidelines, 5 days free storage period is considered for all commodities. Based on the conditions prevailing at the port, free period of 5 days for car and 7 days for other cargo is proposed. Based on the similar port operation for Ro-Ro, it is observed that the cars would be evacuated within the free period hence it is assumed that only 5% of the optimal capacity would attract the storage charges. The storage charges are calculated based on the following inputs:

Particulars	Unit	Cars	Cement	Food Grains	Others
Optimal capacity	Units/ MTPA	63875	0.507	0.461	0.439
Free Period	Days	5	7	7	7
% of Cargo that would attract storage charges	%	5%	20%	30%	20%
Cargo Storage considered		➤ 80% of cargo to be evacuated in first 2.5 days ➤ 10% within 7.5 days ➤ 10% within 12.5 days	➤ 80% of cargo to be evacuated in first 3.5 days ➤ 10% within 10.5 days ➤ 10% within 17.5 days	➤ 80% of cargo to be evacuated in first 3.5 days ➤ 10% within 10.5 days ➤ 10% within 17.5 days	➤ 80% of cargo to be evacuated in first 3.5 days ➤ 10% within 10.5 days ➤ 10% within 17.5 days

- (b). Based on the above inputs, the storage charges for different commodities are estimated. A telescopic rate is considered to discourage the storage of cargo for a longer period.
- (xi). The COPT has proposed the following tariff in its Reference Tariff Schedule attached along with the revised proposal:

(1). **Berth Hire:**

GRT	Rate per GRT per hour or part thereof	
	Foreign going vessel (in ₹)	Coastal vessel (in ₹)
Any volume of GRT	1.55	0.93

(2). **Cargo Handling charges:**

(a). Car Handling:

Commodity	Unit	Rate in ₹	
		Foreign	Coastal
Cars or any other type of automobile vehicles	Per car / vehicle	750.03	449.93

The charge prescribed above is a composite charge which comprises of the following activities (in any order):

- (i). Receiving the car at the Terminal.
- (ii). Allocation of storage space in the car parking facility and parking it.
- (iii). Providing adequate lighting at the car parking facility.
- (iv). Providing adequate security at the car parking facility.
- (v). Documenting the number of cars received at the car parking facility and numbers loaded into the ship.
- (vi). Maintaining the document relating to the ship
- (vii). Lashing onto the deck floor of the ship.
- (viii). Other miscellaneous services

(b). Dry Bulk Cargo Handling:

Sr. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1	Cement- transfer from ship to silo	30.59	18.35
2	Cement- packaging & forwarding	955.81	573.37
3	Food Grains	317.56	190.50
4	Other Bulk Cargo	251.20	150.69

The charge prescribed above is a composite charge which comprises of the following activities (in any order):

- (i). Loading/Unloading of the cargo from the ship
- (ii). Transporting the cargo to the storage yard*
- (iii). Storing the cargo at the storage yard for the free period*
- (iv). Loading the cargo from the storage yard onto the importer's vehicle/ unloading the cargo from the exporter's vehicle and transferring it into the storage yard.*
- (v). For cement, it also includes charging towards cement bagging*

*For Cement- these services are envisaged only for cement packaging & forwarding Facility and not for cement transfer from ship to silo facility.

(3). **Storage charges:**

(a). Car Handling:

Description	Rate in ₹ per car per day or part thereof
Free period	5 days
First five days after expiry of free period	16.7
6 th day to 10 th day after expiry of free period	25.0
From 11 th day onwards	33.4

(b). Dry Bulk Cargo Handling:

Description	Rate in ₹ per MT per Day or part thereof		
	Cement	Food Grains	Other bulk Cargo
Free period	7 days	7 days	7 days
First seven days after expiry of free period	21.07	4.63	7.97
8 th day to 14 th day after expiry of free period	31.61	6.95	11.96
From 15 th day onwards	42.14	9.26	15.94

(4). **Miscellaneous charges:**

The following Miscellaneous charges are applicable for the bulk cargo handled:

Particulars	Unit	Rate in ₹
Food Grains	Per metric ton	10.95
Other Bulk Cargo	Per metric ton	12.56

Note:

The above miscellaneous charges include Environment and Management, sweeping of cargo on the Wharf, safety and security measures etc.

(xii). The COPT has also proposed Performance Standards as given below:

(a). Berth hire charges:

Depth as required for berthing the vessel having draft upto 9.14 mtrs. during all stages of the tide shall be maintained in front of the berth for a width of 50 mtrs.

(b). Handling charges:

Gross average unloading rate

Cargo category	Gross average unloading rate shall not be less than
Cement	5000 T/ day
Wheat	7500 T/ day
Timber and other cargo	2500 T/ day
Cars	1000 number/ day

The port has proposed a condition uniformly for each cargo stating that the gross average unloading rate shall not be less than the level proposed above for each cargo category on the basis on 24 hour working and in the case of part day working (less than 24 hours), the requirement will be on prorated basis of duration in hours of the vessel/ cargo availability for operation. Gross time shall be reckoned from the time of readiness of the vessel for commencing the car unloading operation till the completion of the unloading. Any break down period due to the non-readiness of the vessel/ cargo shall be deducted from the gross time.

9.2. The COPT vide its e-mail dated 18 October 2013 has also confirmed that as advised vide our letter dated 14 October 2013, the revised proposal has been simultaneously forwarded by the port to all the users /user associations/ short listed applicants with a request to submit their comments directly to us and to COPT on or before 22 October 2013.

10. Based on a preliminary scrutiny of the revised proposal dated 15 October 2013, the COPT was requested vide our letter dated 23 October 2013 to furnish additional information/ clarifications. The COPT has subsequent to the joint hearing, vide its letter dated 8 November 2013 furnished its reply on queries raised. Summary of queries raised by us and the response of the COPT is brought out in the subsequent paragraph.

11. A joint hearing in this case was held on 29 October 2013 at the COPT premises. The COPT made a power point presentation of its proposal. At the joint hearing, the COPT and the users/ user associations have made their submissions.

12.1. As decided at the joint hearing, the COPT was requested vide our letter dated 1 November 2013 to initiate action on the following points:

- (i). As decided at the joint hearing, users, user organisations and shortlisted applicants were allowed 3 days' time i.e. upto 2 November 2013 to furnish their comments/ written submission, if any to us as well as to the COPT on the revised proposal dated 15 October 2013 filed by the port. The COPT to furnish its comments thereon in 3 days' time thereafter.
- (ii). COPT to expedite furnishing its response to our questionnaire dated 23 October 2013 in a weeks' time i.e. by 4 November 2013.
- (iii). At the joint hearing, the Cochin Steamer Agents Association (CSAA) has pointed out that the proposed upfront berth hire is 500% higher than the rates prescribed in existing Scale of Rates of COPT. The CSAA has suggested the port to consider the option of allowing collection of berth hire from Shipping Lines as well as from Receiver of cargo. As agreed at the joint hearing, the port to examine the point made by CSAA and introduce a suitable note in this regard in the proposed Scale of Rates.

12.2. With reference to para 12.1.(i). above, the users/ user organisations/ shortlisted applicants have furnished their comments/ written submission on the revised proposal dated 15 October 2013 filed by the port. The COPT has furnished its response.

12.3. With reference to para 12.1.(ii). above, the COPT has furnished its response vide its letter dated 8 November 2013. The COPT has subsequently proposed some correction in a general note on penal rate of interest vide its email dated 12 November 2013. The summary of the queries raised by us and the reply furnished by the port are tabulated below:

Sl. No.	Queries raised by us	Reply furnished by port
(1).	<u>General:</u>	
(i).	(a). The proposal of COPT envisages the BOT operator to handle cars, cement, wheat, timber and other cargo. Please indicate the names of the cargo items covered under the cargo item "others". Consequently, the Reference Tariff Schedule and the proposed Performance Standard may also be modified to indicate the names of cargo items under "others".	Other cargo includes timber, bagged parcels like cement, other construction material and food grains. Accordingly, the reference tariff schedule and proposed performance standard have been modified to indicate these commodities and incorporated in the revised proposal. (Note: Construction material in break bulk form is export cargo meant to Maldives. The projected annual traffic of metal is 35,000 T and sand 30,000 T. The bagged cement comprises of 17,000 T of export to Maldives and 30,000 T of coastal import.)
	(b). Confirm the operator will not be allowed to handle any other cargo other than cement, cars, timber, wheat and the cargo items to be listed by COPT under 'others'.	We confirm that the operator will not be allowed to handle any other cargo other than cement, cars, food grains and the cargo items listed above under other cargo.
(ii).	The COPT is also requested to confirm that the proposed allotment of land is in line with the Land use plan of the port.	The COPT has not replied this point.
(2).	<u>Optimal Capacity:</u>	
(A).	<u>For RORO Cars:</u>	
(i).	Traffic Projections attached as Annex-III to the Feasibility Report estimates the volumes of RORO at 50,000 cars and volume of cargo items cement,	Handling rate and share of capacity of cargo has been considered in calculating the optimal capacity of the

	wheat, timber and others is projected at 18.65 lakhs tonnes from the year 2018-19 onwards till the end of the project i.e. 2044-45. It is seen that the optimal capacity of the terminal is assessed at 63,875 of cars and 19.10 lakhs tonnes of cement, wheat, timber and other cargo to match the traffic projected in the feasibility report. Clause 3.3.2. of the 2008 tariff guidelines stipulates that the upfront tariff is to be determined for optimal capacity of the terminal irrespective of the traffic forecast. In the light of the above clause and considering that the project is for a long horizon for 30 years wherein advancement in technology, increased draft and other improvements can improve the overall traffic and optimal capacity of the proposed terminal and also taking into consideration the various gaps observed in the subsequent points, the COPT may re-assess the optimal capacity of the terminal improving upon the various parameters adopted by the port in the calculation of optimal capacity.	terminal, which in turn has been calculated based on the guidelines issued by TAMP for multi-purpose terminals. Further, as suggested by TAMP, berthing and de-berthing time for handling cars will not be considered and accordingly, the optimal capacity of bulk and break-bulk would be modified.																																												
(ii).	(a). The COPT has stated that since no norms are available for Ro-Ro type facility in the tariff guidelines of 2008, the Reference tariff for Ro-Ro facility envisaged in the project is arrived based on the similar lines followed in the upfront tariff determined for Ro-Ro cum multi-purpose berth at Chennai Port Trust (CHPT). It is, however, observed that the following parameters adopted by COPT are not in line with the parameters followed in the upfront tariff determined vide Order No.TAMP/26/2012-CHPT dated 17 August 2012 for Ro-Ro facility at CHPT: <table><tr><th>Sl. No.</th><th>Description</th><th>Parameters considered in the upfront tariff fixation of car (Ro-Ro) facility at CHPT – Order No.TAMP/26/2012-CHPT dated 17 August 2012</th><th>Parameters considered by COPT in the current proposal dated 15.10.2013 for fixation of Reference Tariff following principles of 2008 guidelines for handling car at Q1 – Q3 berths</th></tr><tr><td>A.</td><td>Optimal Quay Capacity</td><td></td><td></td></tr><tr><td>(i).</td><td>Handling rate of car</td><td>136 cars/ hour</td><td>50 cars/ hour</td></tr><tr><td>(ii).</td><td>Ship day output/ day</td><td>3264 cars/ day (136 cars/ hour x 24 hours)</td><td>1000 cars/ day (50 cars/ hour x 20 hours)</td></tr><tr><td>(iii).</td><td>Optimal Quay Capacity</td><td>8,33,952 cars/ annum (3264 cars/ day x 365 days x 70%)</td><td>Not furnished</td></tr><tr><td>B.</td><td>Optimal Yard Capacity</td><td></td><td></td></tr><tr><td>(i).</td><td>Area earmarked for car parking card</td><td>10,300 sq. mtrs.</td><td>15,000 sq. mtrs.</td></tr><tr><td>(ii).</td><td>Car parking level</td><td>6 stories (Multi-level parking)</td><td>1 storey (No Multi-level parking)</td></tr><tr><td>(iii).</td><td>Total area after considering multi-level parking</td><td>61,800 sq. mtrs. (10,300 sq. mtrs. X 6 stories)</td><td>15,000 sq. mtrs. (No Multi-level parking)</td></tr><tr><td>(iv).</td><td>Area required to park a car</td><td>7.75 sq. mtrs./ car</td><td>12 sq. mtrs./ car</td></tr><tr><td>(v).</td><td>Total area required to park a car after providing</td><td>10 sq. mtrs./ car</td><td>15 sq. mtrs./ car</td></tr></table>	Sl. No.	Description	Parameters considered in the upfront tariff fixation of car (Ro-Ro) facility at CHPT – Order No.TAMP/26/2012-CHPT dated 17 August 2012	Parameters considered by COPT in the current proposal dated 15.10.2013 for fixation of Reference Tariff following principles of 2008 guidelines for handling car at Q1 – Q3 berths	A.	Optimal Quay Capacity			(i).	Handling rate of car	136 cars/ hour	50 cars/ hour	(ii).	Ship day output/ day	3264 cars/ day (136 cars/ hour x 24 hours)	1000 cars/ day (50 cars/ hour x 20 hours)	(iii).	Optimal Quay Capacity	8,33,952 cars/ annum (3264 cars/ day x 365 days x 70%)	Not furnished	B.	Optimal Yard Capacity			(i).	Area earmarked for car parking card	10,300 sq. mtrs.	15,000 sq. mtrs.	(ii).	Car parking level	6 stories (Multi-level parking)	1 storey (No Multi-level parking)	(iii).	Total area after considering multi-level parking	61,800 sq. mtrs. (10,300 sq. mtrs. X 6 stories)	15,000 sq. mtrs. (No Multi-level parking)	(iv).	Area required to park a car	7.75 sq. mtrs./ car	12 sq. mtrs./ car	(v).	Total area required to park a car after providing	10 sq. mtrs./ car	15 sq. mtrs./ car	
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		margin for access and clearance. (COPT has provided 25% margin)			
	(vi).	Effective car parking area considered by CHPT after providing 20% margin for ramps, elevators.	49,440 sq. mtrs. (61,800 x 80%)	- (25% margin already provided by COPT in area required for parking car)	
	(vii).	Stack height at each storey	1	1	
	(viii).	Total Ground Slots (multi-level parking considered by CHPT) [COPT – single level parking]	5,000	1,000	
	(ix).	Average dwell time	3	4	
	(x).	Optimal Yard Capacity	4,25,833 cars	63,875 cars	
	C.	Optimal Capacity for car handling (lower of the two capacities)	4,25,833 cars	63,875 cars	
	(b). It is seen from the above comparative table drawn from the proposal of COPT and the upfront tariff determined at CHPT that many of the parameters adopted by the COPT are not in line with the parameters considered for determination of the upfront tariff at CHPT. The COPT is requested to justify the reasons for deviation in each of the parameters with reference to the parameters considered for upfront tariff determined for RORO facility in the CHPT. Apart from that, the COPT is also requested to furnish clarification on the following points:				
	(i). The COPT has not furnished the optimal quay capacity for handling car. Since the tariff guidelines of 2008 require to consider the lower of the two capacities (quay and yard) as the optimal capacity, the COPT is requested to calculate the optimal quay capacity for car handling as done in the case of CHPT also. While doing so, COPT is requested to justify the reasons for considering scaled down handling rate of car at 50 cars/ hour as against 136 cars/ hour considered in the CHPT upfront tariff Order. Bearing in mind that the Reference Tariff to be determined now is for time horizon of 30 years, port may consider to review and improve the handling rate of cars at par with the handling rate parameter adopted in the CHPT case which in turn will improve the optimal capacity of car handling at the terminal.				(a). Quay Capacity is worked out and included in the revised proposal. (b). Optimal Quay Capacity of car is estimated at 2,55,500 cars per annum applying handling rate of 1000 cars per day i.e. (1000 cars/ day x 365 days x 70%). As far as Chennai Port is concerned the cars handled are meant for outgoing (export) purposes. These cars are brought in from the manufacturing units in the hinterland and can be stocked in multi-level parking facility (which has lift and ramp within). Therefore, the area required for each car parking in comparison to ground slot is lower. Further, CHPT has provided priority berthing for cars, while the same is not provided at COPT.

		The requirement of car parking in COPT is only for incoming cars, through coastal cargo, which are required to use in hinterland. The total number of cars envisaged to be handled is only 50,000 per year. Hence, the multi-level parking is not warranted. In addition to this, there is a height restriction due to the flying funnel.
	(ii). It is seen that at CHPT even with 10,300 sq. mtrs. area proposed to be allotted for car parking, the optimal yard capacity assessed by CHPT is 4,25,833 cars as against optimal yard capacity assessed by COPT at 63,875 cars for 15,000 sq. mtrs. of area proposed for car parking. This leads to gross underutilisation of the storage yard in comparison to CHPT. The COPT may consider to improve various parameters viz., ground slot, average dwell time at par with the parameters adopted at CHPT to improve the optimal yard capacity for car parking. The port may also consider the possibility of having multi-level parking as considered in the CHPT recognising the benefits/ advantages of a multi-level parking vis-à-vis the proposed open parking yard in terms of efficiency in operations.	Average size of the car considered for the planning purpose is 4.50m x 1.80m. After allowing side clearance of 0.60m and end clearance of 0.50m, the space required for positioning car is 12m². Additionally, 25% of this area is added towards access and circulation roads. Thus a total area of 15m² is required per car and the same is provided accordingly. At Chennai port, parking slots have been identified for specific types of cars as they come from the manufacturing units and hence space can be optimized. Whereas in Cochin port, the cars handled are for the usage in hinterland, which are mostly mid-sized and therefore may not be of the same type. Hence, the size of parking is determined based on general mid-size car.
	(iii). If the COPT does not envisage multilevel parking at the proposed facility, then please confirm whether port proposes to include any specific condition in Bid document which refrains the successful operator to have multi-level parking at the car parking area in future during the project period.	The proposed berths of Q1-Q3 fall under flying funnel height restriction area and the same would be informed to the Bidders. As such, the Concessionaire would be required to ensure that these restrictions are not breached in activities undertaken.
	(iv). Justify the basis for adopting the average dwell time of 4 days as against improved average dwell time of 3 days' time adopted in the case of CHPT based on the proposal of CHPT.	This being a coastal import and delivery has to be taken by a number of dealers spread over Kerala compared to the arrival of cars in Chennai Port from manufacturing units, the evacuation of the cars will not be at the same pace as in Chennai and the consignee may require more dwell time at the port terminal. Accordingly, 4 days of dwell time is considered for the Cochin Terminal.
	(v). The COPT has considered the area required per car at 12 sq. mtrs. and scaled it to 15 sq. mtrs. after providing margin of 25% for the space required for access and clearance of car. Justify the basis for adopting the parameter of 12 sq. mtrs. area per car as against 7.75 sq. mtrs./ car area considered by CHPT and also explain the basis for providing 25% margin area i.e. 3 sq. mtrs. per car for access and circulation at car parking area.	Average size of the car considered for the planning purpose is 4.50m x 1.80m. After allowing side clearance of 0.60m and end clearance of 0.50m, the space required for positioning car is 12m². Additionally, 25% of this area is added towards access and circulation roads, as against 29% as considered by CHPT. Thus a total area of 15m² is required per car and provided accordingly.

	(vi). If the COPT is of the view that by modifying various parameters, the share of cargo capacity of car increases beyond the level expected for the project envisaged, then the COPT may consider suitable reduction in the total area allocated for car parking and attempt to reduce the mismatch between the optimal quay and the optimal yard capacity for handling car.	The proposed parameters are retained, hence no modification is required.
	(vii). In para 4.8. of the proposal, the COPT has considered 3 hours i.e. 0.125 day/ vessel additional time required for berthing and de-berthing of vessel while arriving at total berth days of 71.9 for handling cars at the proposed terminal. The approach adopted by the COPT of providing additional 3 hours for berthing and de-berthing is not found as per the norms prescribed in 2008 guidelines and is also not in line with the approach followed in determining the upfront tariff for various projects at other Major Port Trusts. The COPT is, therefore, requested to exclude this additional berthing days included in the calculation of berth days for handling cars. Consequently, the number of berth days considered for arriving at the Optimal quay capacity of bulk and break bulk envisaged 439.10 days [i.e. 730 days (for two vessels at Q1 to Q3) x 70% - 71.90 days for car handling] may also need to be modified.	The berth time required for car carriers would be modified without considering 3 hours' time required for berthing and de-berthing. The optimal quay capacity of bulk and break-bulk is modified accordingly in the revised calculation.
	(viii). The COPT is requested to rework the optimal yard and optimal quay capacities for handling car in the light of the above observation. While doing so, as stated earlier the COPT may endeavour to minimise the gap between the optimal quay and yard capacities.	Optimal capacity of the terminal for car handling is lower of the quay capacity and the yard capacity. Optimal Quay Capacity is 255000 cars $(0.7 \times 50 \text{ cars/ hour} \times 20 \text{ hours/ day} \times 365 \text{ days})$ Optimal Yard Capacity is 63875 cars $0.7 \times \frac{1000 \times 1 \times 365}{1 \times 4} \text{ Cars}$ Therefore, the optimal capacity of the terminal for car handling is 63875 cars.
(B).	For Cement, wheat, timber and other cargo:	
(i).	The average handling rates achieved by the existing user handling cement at the port may be indicated for the last three years 2010-11 to 2012-13. Also, indicate the ship to silo equipment presently deployed at the port's berth for handling of cement.	The productivity in cement handling realized by GACL is as follows: 2010-11: 4867 TPD 2011-12: 3727 TPD 2012-13: 4041 TPD No equipment is presently deployed at the port's berth for handling of cement.
(ii).	The port has assumed handling rate of 5,000 tonnes/ day for cement. Explain the basis for considering the handling rate of cement at 5000 tonnes / day.	Based on the performance details of the existing similar cement handling facility of GACL, handling rate of 5000 tonnes per day has been considered.
(iii).	The COPT has stated that it is has adopted the norms prescribed in tariff guidelines of 2008 for multipurpose cargo terminal in respect of dry bulk and other cargo. The 2008 guidelines for multipurpose cargo terminal prescribe norms for	Considering the low proportion of cargo requiring the services of crane and smaller size vessels expected at the terminal, one MHC of 64 T is proposed. Accordingly, the proposal

	handling rate at 7500 tonnes per day for dry bulk cargo for parcel size of vessel lower than 30,000 tonnes, 4000 tons for steel cargo and 2500 tons for other cargo prescribed. These norms prescribed in the guidelines are with reference to the provision of 3 Electrical Level Luffing Wharfage cranes of 20 Tons capacity. In view of our queries in the subsequent paragraph requesting COPT to examine the possibility of deployment of higher capacity HMC of 100 Tonne, the COPT may consider to improve the handling rate with reference to handling rate of 100 T HMC at 12,500 for dry bulk cargo like food grains, 6000 tons per day for steel and bagged cargo and 3750 tons per day for other cargo (timber, logs), as considered by the Authority for determining optimal capacity and tariff of 100 tons HMC at other Major Port Trusts like the Visakhapatnam Port Trust (VPT), New Mangalore Port Trust (NMPT), Paradip Port Trust (PPT) and V.O. Chidambaranar Port Trust (VOCPT).	will be retained.
(iv).	Page 17 of the proposal of COPT states that the cement will be pumped directly to the captive cement storage area of one of the existing users and for other common users it will be pumped to the silos and packed and loaded using packing unit and automatic truck loader at the storage yard. The COPT is requested to furnish the optimal capacity of the silos, and automatic packing plant at silos and also indicate the basis of various parameters adopted to arrive at the capacity and justify the same with reference to existing cement handling and storage facility at Cochin Port Trust.	Considering the land area available behind the berth, only two silos can be constructed. Further, the height of the silo is also restricted by the flying funnel restrictions. As such, these silos can be constructed with a total capacity of 25000 tonnes. Based on the performance of the existing terminal and the cement requirement in the hinterland according to the seasons, 20 turnings are expected per annum. This works out to an optimum capacity of 5 lakhs tonnes storage capacity per annum. In practice, the average working of the cement packing units is 10hrs per day and average output is 100 tonnes per hour for a plant with rated capacity of 125 t per hour. Further, the average working in a month is 25 days. Two packing units are proposed. Thus the annual capacity of the packing unit works out 6 lakhs tonnes per annum (2 nos. equipment x 12 months x 25 days x 10 hrs x 100 tonnes).
(v).	Please confirm whether the 50% of the optimal capacity of cement relating to common user envisaged to be pumped to silos will directly be packed and loaded onto trucks. Para 3.4.3. of the Feasibility Report states that the project will have bulk loading of cement into cement tankers also. Neither the proposal of the COPT nor the capital cost mentions about storing of cement in cement tankers. Please clarify the position in this regard.	We confirm that 50% of total optimum capacity of cement would be pumped to silos for packaging and loading in the project facility. The proposed common facility is for storage and dispatch of cement. The dispatch can be either bagged or in bulk form as per the requirement of the consignee. The proposed plant has both the facility. As the bagging plant will be idling at the time of bulk loading of the cement, it is proposed to have the same rate

		for either mode of dispatch of cement. Storage of cement will be only in silos. Tankers in the report mean the truck tankers used for conveyance of cement from the storage silos to the consignee's destination. Since storage of cement in tankers is not contemplated, no capital cost is considered.
(3).	Capital Cost:	
(i).	The estimate of capital cost does not include any pumps for handling cement. From clause 3.3.3.1 of the Feasibility Report it is understood that the cement will be pumped to silos using ship pumps. Justify any specific reasons for not envisaging deployment of any pump by the operator and instead relying on ship pumps. Clarify whether any contingency plan is envisaged by the port for the operator to handle cement if ship pumps are not operating at any point of time or the productivity of ship pump is below the handling norm envisaged in this proposal as it will have impact on the achievement of optimal capacity of the terminal and also achievement of estimated revenue requirement.	As per the prevailing practice of port operations in the country, no contingency plan were envisaged for cargo transfer through ship pumps. It is presumed that the ship may have its own standby arrangement.
(ii).	The optimal capacity of cement is assessed at 10.10 Million Tonnes Per Annum (MTPA) by COPT which forms 52.10% of the optimal capacity of the terminal (other than car) assessed at 19.10 MTPA. Recognising, that the share of cement is significant in the optimal capacity of the terminal, the COPT may instead of relying solely on the handling rate achieved by the existing user explore the possibility of including efficient high capacity pumps to improve productivity and efficiency at the terminal with consequent modification in the optimal capacity and other relevant calculation in arriving at the Reference Tariff.	It is stated here that the cement handling in pumps is a specialized operation and exclusive ships are engaged for this purpose. The present proposal is based on availability of such types of ships in the market. As such, there will be different players engaged in the cement business at same place and parcel size requirement of individual player at one location may not be substantial. Hence, the envisaged capacity considered is adequate. Moreover creating a storage facility for enhanced ship capacity warrants substantial cost and there is crucial space constraint.
(iii).	Tariff guidelines of 2008 prescribe norm of 3 numbers of level luffing crane of 20 tonne capacity each for handling multipurpose cargo at a multipurpose cargo terminal. The port has assumed only one HMC for handling wheat, timber and other cargo at Q1 to Q3 berth. It is seen that the port envisages the berth length of 410 mtrs. can accommodate two vessel at a time. The INSA has also pointed out that one HMC of 64T proposed by the port may not be adequate for berth of 410 mtrs. length. The port is requested to confirm that a single HMC of 64 tonne is adequate to handle two cargo vessels (other than car and cement) berthed at the proposed facility. If so, please confirm that it can achieve the productivity parameters and the optimal capacity considered in the calculation.	Out of the two berths having total length of 410 mtrs, one of the berths is always likely to be occupied by cement carriers/ car carriers. Based on this, effectively only one berth will be available for handling vessels carrying food grains and other cargo, which require the service of MHC for the transfer of cargo between the vessel and berth. One MHC will have a productivity of 7500 tonnes per day in the case of food grains and 2500 tonnes per day in the case of timber and other cargoes, which is in line with the optimum berth capacity. Accordingly, it is confirmed that one MHC of 64T is adequate for achieving the optimal throughput of the terminal.

(iv).	The COPT in their letter dated 21 October 2013 while furnishing its comments on the point made by INSA has at point (d) stated that initially the port proposes only one HMC so as to reduce capital investment. Operator is, however, free to install additional cranes if required. Regarding dredging also, the COPT at point (e), has stated that if Concessionaire demands further draft, Concessionaire shall bear all the expenditure for increased draft. In this context, if additional HMC is envisaged to be deployed by the operator in future or the port expects the operator to incur the expenditure for increased draft, then please explain what is the recourse available to the terminal operator to recover such additional cost of investment as the Reference tariff caps (to be) approved by the Authority are applicable for the entire project period subject to indexation as per clause 2.2. of the tariff guidelines 2013.	In case improved facilities are provided through increase of draft and/ or providing additional cranes the traffic as well as total GRT of vessel calling the terminal would also increase, which would result in additional revenue to the BOT operator and it may compensate the investment and operational cost required for providing and maintaining the improved facilities as detailed above. The position of the operator is that it should adhere to the reference tariff even though improved facilities are provided in the terminal. It is also pointed out that they would be endeavoring for providing the improved facilities only if it is financially beneficial to them.
(v).	In case the COPT envisages part of the cargo will be handled by the ship gear then, the COPT may consider to propose a suitable rebate in the existing composite handling rate proposed by the port which includes loading/ unloading of cargo from/ to ship.	The proposed handling equipments are adequate to handle the optimum capacity as such COPT does not envisage handling part of cargo through ship gear.
(vi).	The COPT proposes to allot three warehouses and two sheds as part of this project on as is where is condition. The port has assessed the value of existing building to be handed over to the operator at ₹17.22 crores by appointing a valuer. The written down value of the existing building including warehouses and sheds as on 31 March 2013 as per provisional Annual Accounts 2012-13 may be indicated. The treatment to be given in the Annual Accounts of the COPT with reference to loss or gain due to such transfer of assets and its treatment to be given in the next general revision proposal of COPT may also be indicated.	The one to one identification of assets between revaluation records and books of accounts is difficult. The available WDV of the assets has been enclosed. The book value of buildings proposed to be transferred to the BOT operator is ₹40.07 lakhs as per the details furnished by the COPT. The necessary adjustment entries due to this transfer will be made effective when preparing/ submitting the next general tariff revision proposal.
(vii).	At para 5.2 (b)(i) of its proposal it is seen that capital cost relating to civil works are apportioned to three cargo groups viz. cement, foodgrain and others based on the share of berth occupancy. Please confirm that capital cost relating to civil works so apportioned by the COPT are relevant for these cargo categories.	Capital cost for the common facilities are apportioned based on the berth occupancy. However the specific capital costs related to the cargos such as food grains, cement, cars and other cargos are provided separately.
(viii).	The COPT has further segregated the capital cost related to cement handling between two major activities viz. (a). transfer from ship to silo and (b). Packing and forwarding in a separate excel statement. It is seen that the civil cost items with reference to connecting bridge, earth pressure relieving and shore protection, foreshore and foot path, refurbishment of roads and drains, construction of compound security wall and equipment cost relating firefighting system is entirely apportioned to transfer of cement from ship to silo. Please confirm whether the capital cost relating to these works particularly capital cost for refurbishment of roads and drains, construction of compound security wall, etc., are not relevant	Optimal capacity from ship to silo is 1.01 MTPA. Whereas for packaging and forwarding, the capacity would be 0.5 MTPA. Considering the fact, that the service from ship to silo will be utilized by all the users including the user using the packaging & forwarding services, the capital cost of connecting bridge, earth pressure relieving and shore protection, foreshore and foot path, refurbishment of roads and drains, construction of compound security wall and equipment cost relating firefighting system is considered as common for all the

	for cement packing and forwarding service. The COPT may review this point and, if necessary, modify the apportionment of these capital cost.	cement users and based on the guidelines is apportioned considering the berth occupancy. Since all the users are going to utilize services between ship to silo, the capital cost is considered entirely on this portion.																					
(ix).	The estimate of capital cost at para 5.2 (b)(i), and (ii) matches with the estimates of capital cost furnished in Annex III of the proposal dated 15 October 2013 but does not match with the estimate of capital cost furnished in Annex I. Please indicate the capital cost estimates of which Annex are correct and are to be relied upon.	The cost mentioned in the Annex-I is the base cost. However based on the guidelines the landed cost is arrived at by considering contingency cost, PMC, engineering cost, service tax and environment management cost.																					
(x).	Please furnish breakup of the capital cost for cement handling equipment estimated at ₹44.07 crores in para 5.2.(b)(ii) of the proposal.	The details of cement handling equipment is provided in the Annex-I of the proposal. <table border="1"> <thead> <tr> <th colspan="3">₹ in crores</th></tr> <tr> <th>Particular</th><th>As per Annex-I</th><th>Estimates considered after providing for Contingency, Engineering and PMC, Service tax, and Environment Management cost</th></tr> </thead> <tbody> <tr> <td>(i). 5T Payloaders (2 nos.)</td><td>0.7</td><td>0.81</td></tr> <tr> <td>(ii). Cement Packaging unit 125T (2 nos.)</td><td>25.00</td><td>28.84</td></tr> <tr> <td>(iii). Automatic Truck loading unit (1 no.)</td><td>4.50</td><td>5.19</td></tr> <tr> <td>(iv). Power Supply</td><td>8.00</td><td>9.23</td></tr> <tr> <td>TOTAL</td><td>38.20</td><td>44.07</td></tr> </tbody> </table>	₹ in crores			Particular	As per Annex-I	Estimates considered after providing for Contingency, Engineering and PMC, Service tax, and Environment Management cost	(i). 5T Payloaders (2 nos.)	0.7	0.81	(ii). Cement Packaging unit 125T (2 nos.)	25.00	28.84	(iii). Automatic Truck loading unit (1 no.)	4.50	5.19	(iv). Power Supply	8.00	9.23	TOTAL	38.20	44.07
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(xi).	From the Feasibility report or from the proposal, it is not clear the capital cost estimates pertain to which period. As already mentioned in the guidelines, the capital cost of civil works and equipment should be updated to capture the prevailing market rate while fixing the upfront tariff cap. The COPT may, therefore confirm that the estimates of both civil and equipment cost reflect the prevailing market rate. The estimates may be substantiated with documentary support in form of budgetary quotations, rate analysis, etc.	Capital cost estimate pertain to July 2013. However, the import items involved in this project are marginal and the variation in the foreign exchange will not have significant effect on the overall cost of the project.																					
(4).	<u>Operating cost:</u>																						
(i).	<u>Power Cost:</u>																						
	(a). The port has estimated total power consumption of 500 units/ hour for 64 T HMC. Please confirm whether the HMC proposed to be deployed is power driven and not fuel driven as in all other port trust where the HMC is deployed/ proposed to be deployed they are fuel driven. The basis for estimation of power consumption at 250 unit per hour each for food grain and for other cargo i.e. total 500 units / hour may be justified with reference to equipment manufacturer's specifications and supported with calculation to support the power consumption adopted by the port.	It is based on the just below capacity MHC of 50T now in operation in COPT and also details gathered from the various equipment manufacturers.																					
	(b). Explain the basis for adopting the power consumption parameter at 4 units per tonne for bagging plant and justify with reference to the technical specification of the equipment proposed to be deployed with detailed working. It may be relevant to mention that in the upfront tariff determination of mechanized fertilizer handling	The equipment involved in cement bagging comprises of air compressors, bubblers, operation of air filters, screw conveyors apart from the operations of the bagging equipment. The operational techniques involved in cement storage, retrieval and bagging																					

	terminal, the power consumption considered is 0.50 units per tonne for bagging plant in Order No.TAMP/26/2009-VPT dated 27 November 2009 and notified on 18 December 2009. The COPT is requested to justify the power consumption for bagging plant assumed by the port in its proposal with reference to the above mentioned order of the VPT.	operations are totally different from the operations involved in the case of finished fertilizer bagging. The power requirement at the rate of 4 units per tonne of cement has been considered based on the performance details of the similar terminal now (GACL) in operation in COPT.
	(c). The variable unit cost of power considered at ₹7.2 per unit and the fixed cost at ₹400 per KVA may be substantiated with copy of a recent electricity bill of the port.	The power consumption bills of similar facilities of Gujarat Ambuja Cements for the last one year are attached to justify the unit rate.
(ii).	Fuel cost:	
	(a). The fuel consumption norm prescribed in the 2008 guidelines for a multipurpose cargo terminal for a 10T pay loader is 12 ltrs/ hour. As against that for half the capacity i.e. 5 T pay loader, the port has assumed fuel consumption of 8 litre per hour/ equipment. Please justify the basis for the fuel consumption parameter adopted by the port for pay loader. Also, justify the basis for the fuel consumption of 6 ltrs./ hour/ dumper adopted by the port.	Fuel consumption of pay loaders and dumpers has been taken based on the discussions with the various operators of similar type of equipment. It may be noted that, fuel consumption for 10T capacity payloaders as per the TAMP guidelines is 12L/hr. As per the technical details, the fuel requirement of 5T capacity is about 70% of 10T capacity payloader.
	(b). The port has proposed total 2 pay loaders in the capital cost. It is seen that the fuel cost for two pay loaders is estimated for total of 11,456 hours [i.e. 928 hours x 2 (for stacking operation) + 4600 hour (for truck loading) + 5000 hours for bagging unit]. Explain the basis for arriving at number of hours for different operations by pay loader.	In the feasibility report 2 Payloaders are proposed for food grains handling and another 2 special type of Payloaders for cement handling at the multiuser packing and truck loading facility. 2 Payloaders are deployed for stacking of the food grains in the storage sheds during the food grains unloading operation from ships. The MHC operation time for ship unloading is estimated as 62.6 days x 16 hours = 1001 hours. Accordingly, the deployment period of the two pay loaders for this operation will be $2 \times 1001 = 2,002$ hrs. These pay loaders will also be used for loading of food grains to trucks, the handling rate being 100t/hr. The total working period of these two pay loaders, in hours is the optimum capacity of food grains cargo in tonnes divided by 100t/hr which works out to 2350 hours. Two special type payloaders are deployed for the movement of cement in the bagging unit. The productivity of these payloaders is 100t/hr. As such the total working period of these two pay loaders, in hours is optimum common user cement capacity in tonnes divided by 100t/hr which works out to 5140 hours.

		Thus the total working period of the pay loaders works out to 9492 (2002+2350+5140)
	(c). For dumpers, the port has estimated fuel cost for 928 hours per dumper and has estimated fuel cost for 6 dumpers. The working hour norm prescribed in 2008 guidelines for multipurpose cargo terminal is 4000 hours. The COPT is requested to explain the basis of considering the number of working hours for estimation of fuel cost for dumper and justify the reason for deviation in the number of working hours prescribed in the guidelines.	Based on the optimum capacity of the food grain cargo and handling capacity of the MHC, the vessel operation will be for a total period of 62.6 days. Considering effective 16 hrs working a day, the total dumper operational requirement is 1001 (62.6 x 16). As the fuel is required for the actual operational period, 1001 hrs is considered for fuel quantity estimation.
(iii).	<u>Licence Fee:</u> The COPT has estimated the payment of licence fee by the BOT operator as an item of operating cost for the area proposed to be allotted under the project. The following points may be clarified in this regard.	
	(a). The COPT has estimated License fee for total 7.15 hectares of land proposed to be allotted for car parking, cement silos, food grains and other cargo applying unit rate of ₹28.13 lakhs per hectare. Please confirm that the rates adopted for estimation of license fee are as per the rates prescribed in the existing Scale of Rates of COPT and the updated rates after taking into account escalation factor applicable as per the Land Policy Guidelines announced by the Government from time to time.	We confirm that the license fee estimated is based on the rate prescribed in the existing scale of rates of COPT and updated after taking into account escalation factor applicable as per the Land Policy Guidelines (base rate of ₹2667600 per hectare per annum is taken as per the COPT scale of rate dated 10th July 2010 which further escalated at 2% annually).
	(b). The COPT has already included the cost of sheds and warehouses to be transferred to the operator in the estimation of capital cost. Hence the repairs and maintenance and depreciation on this component computed as per norms will be captured in the upfront tariff calculation. In this context, please clarify the estimation of license fee for the same set of warehouses and two sheds in the estimation of license fee will not amount to double counting of cost elements for the same item. If so, the COPT may examine and eliminate double counting of the cost elements in determining the Reference Tariff.	License fee is levied on the land, which does not include the cost of existing buildings.
	(c). The license fee for cement is estimated at ₹75.10 lakhs per annum which is apportioned between two activities viz. transfer from ship to silo and packing and forwarding services. Explain the basis of apportioning the license fee relating to cement cargo between these two activities.	The common area of 2.6Ha is apportioned among the different cargos based on the berth occupancy. Of this, area of 1.02 Ha has been added to cement as a portion of common area. Further, it is distributed between Ship to Silo and Packaging & Forwarding based on the berth occupancy. Therefore, the total area considered for cement is 2.67Ha out of which 2.16Ha (1.65+0.51) is considered for packaging and forwarding and the remaining 0.51Ha is considered for transfer from ship to silo. license fee (0.51 area x 28.13 ₹ Lakhs) = 14.34.

(5).	<u>Apportionment of Annual Revenue Requirement:</u>	
(i).	The excel statement furnished by the port segregates the total revenue requirement of ₹3,350.97 lakhs from cement handling between two activities - ₹191.52 lakhs for transfer of cement from ship to silo and ₹3159.45 lakhs for packing and forwarding services. The percentage share of revenue requirement from this two activities works out to 5.7% and 94.25%. As against that in page 17 para 7.3.(b). (i) of the proposal, the COPT has considered revenue requirement of ₹191.52 lakhs for cement transfer from ship to silo and ₹3,183.40 lakhs for packing and forwarding services applying 6% and 94% of the total revenue requirement. The revenue requirement between the two activities may be corrected in line with the detailed working provided in separate excel statement by the port.	₹3355 lakhs is the total revenue requirement from the cement cargo in the revised calculation now furnished. As per the TAMP guidelines 90% of this should be taken for cargo handling. However in this case no miscellaneous charge is envisaged. Port has included 5% of the miscellaneous charge in the handling charges. In which only the packaging & forwarding activity will attract storage charges. Based on this, total revenue requirement for cement handling would be ₹3187.3 lakhs (95% of ₹3355 lakhs) which is apportioned further by applying ratio of 6% and 94%. Detailed working for computation of these ratio is provided in the earlier proposal to TAMP.
(ii).	Of the revenue requirement of ₹3183.40 lakhs (₹3159.49 lakhs stated in the excel statement) proposed to be recovered from the activity of cement packing and forwarding, it is seen that the port has not allocated any revenue requirement towards miscellaneous charge. Since the port has itself admitted that miscellaneous services relating to environmental concerns and cleaning are involved for cement handling at silos, it may consider to allocate part of the revenue requirement towards miscellaneous activity and propose to cover the miscellaneous services in line with the approach followed in the upfront tariff approved in the case of V.O. Chidambaranar Port Trust for cement and construction raw material vide Order No.TAMP/44/2011-VOCPT dated 18 June 2012.	Revenue to be recovered from cement packaging and forwarding in the revised calculation is ₹2993.40 lakhs. Further, we would like to clarify that for cement cargo, there is no scope for miscellaneous services because of fully mechanized system. In view of that, developer would not able to recover cost associated with this. To overcome this we clubbed the charges pertaining to miscellaneous services (5% of total revenue as per the TAMP guidelines for multipurpose terminal) with handling charges.
(6).	<u>Storage charge calculation:</u>	
(i).	As regards storage charges for car, the port has proposed 5 days free period and has proposed storage charge for the slabs first five days after expiry of free period, 6th day to 10th day after expiry of free period and from 11th day onwards. In the calculation of storage charge, however, the port has assumed that 80% of cars will be evacuated within 2.5 days, 10% of car within 7.5 days and balance 10% in 12.5 days. There can be cars which will be evacuated between 3 days to 5 days within the free period which will not attract storage charge but is not found to have been reckoned in the storage calculation. The COPT may examine the storage calculation and the propose storage slabs in the light of the above observation. The port is also requested to show with the working that the operator will be in a position to recover the estimated revenue requirement at the storage charge proposed for cars.	It is envisaged that 95% of the cars will be evacuated within the free period. Out of the remaining 5% of the total cars, 80% of it shall be evacuated within first slab and 10% of it within the second slab and the remaining 10% in the third slab which will attract storage charges. Separate working sheet is provided in revised proposal.

(ii).	It may be relevant to mention here in case of the CHPT upfront tariff, the port has proposed free period of 3 days at par with the average dwell time assumed by the port. The port may justify the reasons and basis for proposing free period of 5 days for car as against 3 days free period approved in the CHPT case.	Considered as per the TAMP guidelines for the multipurpose terminal for imported cargo.
(iii).	The 2008 guidelines prescribes free period of 5 days for import cargo and 15 days for export cargo for a multipurpose cargo terminal. As against that the port has assumed a uniform free period of 7 days free period for cement, food grains and other cargo without any segregation for import or export cargo. The port is requested to furnish detailed justification and reasoning for deviation in proposing free period with reference to the norm prescribed in guidelines of 2008. The port is also requested to clarify whether the port envisages export cargo at the proposed facility. If so, differential free period may be proposed for export cargo as per the guidelines of 2008.	Proposed 7 days based on the position prevailing at COPT. With regard to timber no storage is currently provided inside the terminal and the timber is directly taken to the consignee's yard outside the terminal for avoiding multiple handling. The same scenario will be continued as the same is acceptable and advantageous to the port users. Based on the feasibility study very small quantity of export has only been envisaged. The total quantity of exports is 0.82 lakh tones comprising 0.65 lakh tones of construction material and 0.17 lakh tons of bagged cement. No storage facilities are contemplated for construction material because of its low value-high volume nature and lower level of annual throughput. With regard to cement export it is expected that the same will be taken from the existing/proposed cement handling facility. Hence no separate storage is proposed. In view of low throughput and to avoid multiple handling it is considered that the coastal import of bagged cement will be directly shifted from the berths to the consignee's storage yard. Hence no storage facility is envisaged inside the terminal.
(iv).	In page 18 of the proposal, port has stated that 80% of the foodgrain will be evacuated within 3.5 days i.e. within free period. However, for arriving at storage rate it has assumed 30% of the food grain will attract storage charge. There, thus seems to be mismatch in the percentage of cargo likely to attract storage charge and cargo likely to be evacuated within free period. The inconsistency may please be corrected.	It is envisaged that 25% of the food grain will be evacuated within the free period. Out of the remaining 75% of the total food grain, 33.33% of it shall be evacuated within first slab and 33.33% of it within the second slab and the remaining 33.33% in the third slab which attract storage charges.
(v).	The basis for adopting 80% of optimal capacity of each type of cargo capacity viz., car, cement, food grain and other cargo to be evacuated within the free period and the percentage of cargo capacity adopted by the port which will attract storage charge beyond free period in each of the slabs may be explained.	Cargo to be evacuated within free period Car – 95% Food grain- 25% Cement – 80% Others – (no storage facilities proposed)

(vi).	The port is requested to furnish detailed working for arriving at the proposed unit rate of storage charge per tonne per day for each of the slabs with reference to cargo items car, cement, food grain and other cargo. The port is also requested to confirm that at the proposed storage charge, the successful operator will achieve the estimated revenue requirement and revenue neutral position is achieved.	We confirm that with the proposed unit rate of storage charges per ton per day for each of the slabs for all the reference cargo, the successful operator will achieve the estimated revenue requirement. Detailed working is provided in the revised proposal.
(7).	<u>Berth hire calculation:</u>	
(i).	The COPT has estimated operating cost for berth hire at 1% of the berth construction cost as per the norms prescribed in the 2008 guidelines. Though the guidelines restrict the operating cost at 1% of the berth cost, the asset requires adequate insurance and the fact that the value of the asset will depreciate due to wear and tear cannot be denied. Recognising this point, the Authority while fixing the upfront tariff of berth hire at the other Major Port Trust including the Cochin Port Trust for liquid terminal has recognised the cost of insurance and depreciation on berth cost both at 1% each. The COPT may, therefore, consider to include these elements in the operating cost of berth hire.	Insurance and depreciation for berth hire charges have been included, as per the suggestion by TAMP.
(ii).	The port is requested to justify the maintenance dredging cost estimated at ₹45.20 lakhs in the operating cost of berth hire calculation with reference to the actual maintenance dredging cost incurred by the port for the last three years 2010-11 to 2012-13 at these berths Q1 to Q3 indicating the siltation level as well as unit cost of maintenance dredging. The unit rate of ₹70 per cu.m adopted by the COPT for estimating the dredging cost may please be substantiated with copy of contract entered by the port with dredging company in this regard.	An annual maintenance dredging quantity of 64,500 cum (siltation rate - 3m/year) and a rate is ₹70/cum have been considered in the TAMP proposal. As regards the past data for Q1-Q3 berths, it may be noted that currently, Maintenance Dredging of the port channels and basins is being carried out through M/s.DCI, on contract. This is a lumpsum contract for a period of three years from 2011-12 to 2013-14. Since capital dredging for ICTT was also in progress during the first year of contract, a clear assessment of the maintenance dredging quantities in that year was not possible. For the year 2012-13, the total quantity of maintenance dredging for the Port channels and basins was of the order of 20Million cum. Considering the total area of 60. 84lakh sq.m. the average rate of siltation works out to about 3m. The lumpsum quote of DCI for maintenance dredging for the current year is ₹109.80 crores. The indicative quantity for this quote is 18 Million cum, 9Mcum each in outer and inner channels. Considering the distance to the dumping ground, 12 trips in the outer channel, is equivalent to 8 trips from the inner channel. Based on this the rate for maintenance dredging in

		inner channels works out to about ₹70/cum as detailed below: $R \times 9 + \frac{2}{3} \times 9 \times R = 1098$ $15 R = 1098$ $R = 1098/15 = ₹73.20$ Say ₹70/- Where R is the rate for Inner channel.” Dredging cost includes fuel escalation at the rate of 10% over and above the normal dredging cost.
(iii).	Explain the basis of considering a vessel of 11,000 GRT to carry 1,000 nos. of car. The Feasibility Report also does not explain the basis for adopting this parameter.	Based on the study of capacity and GRT of car carriers it is seen that 10 GRT space is required for 1 car allowing 1000 GRT space for general purpose, 11000 GRT vessel can carry 1000 cars.
(iv).	The COPT has considered GRT of vessel for car and foodgrains at 11,000, for cement at 11,300 GRT and 11,125 GRT for others. Para 3.3.1 of the Feasibility Report, however, states that vessel of 35,000 DWT at light load condition of 9.14 mtrs. draft carrying parcel size of 25,000 tonnes can be handled at the proposed facility. The GRT of the vessel and the parcel size of the vessel considered by the COPT is found to be lower than the level envisaged in the feasibility report. The COPT is, therefore, requested to consider the GRT of vessel and parcel size as envisaged in the Feasibility report. Though the COPT in its proposal has stated that no increase in depth of berth is contemplated, the COPT in its letter dated 21 October 2013 while addressing the points made by INSA has admitted that the operator has the flexibility to increase the draft of the berths in future if there is demand. That being so, and also considering the larger horizon of the project of 30 years period, the port may consider if vessel of larger size GRT can call the proposed berth. If so, optimal capacity and berth hire calculation may be modified suitably.	Although the berth will have flexibility, the operation of the vessels at light loaded condition is not an assured situation. Hence vessel sizes corresponding to 9.14m draft is considered as the realistic case and ship sizes reckoned accordingly for revenue estimation. The increase in draft is not a firmed up position. In case improved facilities are provided through increase of draft the total GRT of vessel calling the terminal may increase, which might result in additional revenue to the BOT operator and it may compensate the investment and operational cost required for providing and maintaining the increased depth. The position of the operator is that he should adhere to the reference tariff even though improved facilities are provided in the terminal.
(8).	<u>Proposed Upfront (Reference) Tariff Schedule:</u>	
(i).	<u>Schedule 2 - General Terms and Conditions:</u> The note 2(A)(b) states the rate of penal interest will be 2% above the Advance Rate of the State Bank of India. This is not in line with the prescription in clause 2.18.2. of the 2005 guidelines which is uniformly prescribed in the Scale of Rates of all Major Port Trusts, Private Terminals operating under 2005 as well as 2008 guidelines. The proposed note may be modified to state that the rate of penal interest will be 2% above the Prime Lending Rate of the State Bank of India in line with the provision in the 2005 guidelines.	The same has been corrected and modified. Subsequently, the COPT vide its e-mail dated 12 November 2013 has requested that the proposed note No.2. (A) (b). may be corrected as "The rate of penal interest will be 2% above the Base Rate of the State Bank of India" since Prime Lending Rate does not exist in the State Bank of India.
(ii).	<u>3.2. Conditionalities under Schedule 3.1. Charges for berth hire:</u>	
	(a). The basis and reasons for introduction of the proposed notes (i), (ii), and (iii), may be	The notes (i), (ii), (iii) & (viii) stand withdrawn.

	explained. It is seen that the proposed notes are neither prescribed in the existing Scale of Rates approved for Cochin Port Trust nor have they been prescribed in the Upfront Tariff Order approved Liquid Terminal at COPT in Order dated 3 September 2010 nor are in line with the upfront tariff schedule prescribed in any other Major Port Trusts.	
	(b). The port has proposed note (viii) stating that the rates and conditions for granting ousting priority/ priority berthing will be governed by the extant government guidelines and provision prescribed in the Scale of Rates of Cochin Port Trust. In this context, it is relevant to state that no rates and conditions for granting ousting priority/ priority berthing are prescribed in the Scale of Rates of Cochin Port Trust or for that matter in the upfront tariff approved for Liquid Terminal and Coal Terminal for COPT approved vide Orders dated 3 September 2010 and 15 February 2013 respectively. Hence the intention of prescribing such a condition only in the case of fixation of Reference tariff for the proposed project may please be explained.	
(iii).	<u>4.1.1. - Schedule for Car Handling Charge:</u>	
	(a). The cargo description states "cars and other type automobile vehicles". Please clarify the types of other automobile vehicle the port envisages to handle. Also, clarify whether the tariff proposed in the current proposal and the parameters adopted by the port viz. the handling rate, storage area, etc., considered by the port for arriving at the proposed rate will be the same for any other automobile vehicle. It is further seen that the cargo description for this item in storage charge and also in the Performance standard is "cars" which does not match with the cargo description in the schedule 4.1.1. The port is requested to maintain the description of the cargo item car uniformly in the Reference Tariff Schedule and the Performance Standard.	This is an error occurred. Only cars of various brands are envisaged to handle at the project facilities. The Schedule 4.1.1. stands corrected accordingly.
	(b). The note under Schedule 4.1.1 – Car Handling lists the activities of composite rate. Item (viii) of the said note may be elaborated to state that it will cover all other miscellaneous services not specifically prescribe in the Scale of Rates.	Miscellaneous services have been removed from the list of activities.
(iv).	<u>4.2.1. - Schedule for Dry bulk Handling Charge:</u>	
	(a). As stated in the earlier part of query, cargo items under "other bulk cargo" may explicitly listed in the proposed Scale of Rates.	The same has been corrected and modified.
	(b). The list of services in the note proposed under this schedule is not clear. Since the services offered under the composite rate proposed in Schedule 4.2.1 at Sl. No.1 for cement handling, Sl. No.2 for cement packing and forwarding, Sl. No.3 and 4 for Food grains and Other bulk cargo vary from cargo to cargo to bring in clarity, it is suggested that the proposed note under this schedule may be given separately for each of the cargo at Sl. No.1 and Sl. No.2 and a combined	

	note may be proposed indicating services included in the composite handling rate proposed at Sl. No.3 and 4.											
(v).	<u>Schedule 4.2.2. Storage Charge:</u> The first sentence of the note states that the free period for bulk cargo is 5 days whereas the table shows free period of 7 days. The inconsistency in the free period may please be corrected.	The same has been corrected and modified.										
(9).	<u>Performance Standard:</u>											
(i).	In view of our suggestion to examine the possibility of improving the handling rate of car, food grain, timber and other cargo, the COPT may consider to incorporate the improved performance standard in the proposal.	Performance standard for the commodities are as indicated below: <table><tr><th>Commodity</th><th>Handling rate</th></tr><tr><td>Cement</td><td>5000 T/ day</td></tr><tr><td>Food grains</td><td>7500 T/day</td></tr><tr><td>Cars</td><td>1000 cars/day</td></tr><tr><td>Other Cargo</td><td>2500 T/day</td></tr></table> In case of other cargo category we envisage timber, bagged parcels like cement, and construction material and food grains. Methodology and equipment involved in the operation and time taken for the unit reduced to ton remains by and large the same for each of the commodities under “other cargo”. It is not practical or realistic to segregate performance standard of individual commodity.	Commodity	Handling rate	Cement	5000 T/ day	Food grains	7500 T/day	Cars	1000 cars/day	Other Cargo	2500 T/day
Commodity	Handling rate											
Cement	5000 T/ day											
Food grains	7500 T/day											
Cars	1000 cars/day											
Other Cargo	2500 T/day											
(ii).	In the proposed Reference Tariff Scale of Rates in schedule 4.2.1. and 4.2.2, the rates proposed are for cargo description “Food Grains” and “other bulk cargo” apart from cargo item cement. Whereas in the Performance standard, the cargo description is “Timber and others”. Similarly, the cargo description of “car” also varies in the Reference Tariff Schedule and the Performance Standard. The cargo terminology for which the port has proposed Reference Tariff do not exactly match with the cargo items for which Performance Standards are proposed. The port is requested to modify the cargo description proposed in Performance Standard duly matching with the cargo description Reference Tariff Schedule.	The same has been corrected and modified.										

12.4. With reference to para 12.1.(iii) above, the COPT while furnishing its comments on the comments of CSAA has stated that the cargo expected at the terminal will be captive cargo wherein it will have one consignee only. Therefore, the cost of berth hire, handling charges and storage charges will be borne by a single consignee only. Hence, minor changes in these charges may not result in drastic change on the overall transport and logistic cost of the consignee. Hence, the COPT has stated that introduction of any special note in the tariff proposal is not warranted.

13. While furnishing the replies to the queries raised by us, the COPT vide its letter dated 8 November 2013 has revised its calculation and has consequently proposed revised Reference Tariff. The main modifications made by the COPT in the revised proposal are given below:

- (i). (a). The port had earlier not assessed the optimal quay capacity of cars. The port has now assessed the optimal quay capacity of cars at 2,55,000 cars per annum assuming handling rate of 1000 cars/ day for 365 days (i.e. 70% x 365 days x 1000 cars/ day).

- (b). The proposal states that total berth days available is 730 days for all the cargo. However, one berth would be occupied by cement vessels at all the time due to higher share of the optimal capacity. Hence, berth occupancy of 365 days would be shared between Ro-Ro, food grains and other cargo. To calculate the optimal quay capacity for car, berth occupancy of 365 days has been assumed considering the car would be handled alone at one berth.
- (c). Optimal yard capacity of car at 63,875 units is lower of quay and yard capacities. Hence, the optimal capacity of car is retained as 63,875 cars as considered in its earlier revised proposal dated 15 October 2013.
- (ii). Additional time for berthing and de-berthing at 0.125 day/ vessel provided by the port is excluded by the port in the revised calculation. Consequently, number of berth day for handling 63,875 car is estimated at 64 days as against 71.9 days estimated earlier. The balance berth days available for handling cement, foodgrains, timber and other cargo also stands modified as 447 days [i.e. (70% x 730 days) – 64 days] as against 439.1 days estimated by COPT earlier.
- (iii). (a). Consequently, the overall optimal capacity of multipurpose cargo stands modified at 19.44 lakh tonnes per annum of cargo as against 19.10 lakh tonnes estimated in its earlier revised proposal dated 15 October 2013.
- (b). The optimal capacity for each of the cargo assessed in the revised calculation furnished by COPT is given below:

Particulars	Optimal Capacity (in lakh Tons)	% of the Total Berth Occupancy
Cement	10.28	40.2%
Food Grains	4.69	12.2%
Others	4.47	35.0%
Total Tonnage	19.44	87.5%
Capacity for handling Cars	63,875 Cars	12.5%

Note: The % capacity of cars out of the total Optimal Capacity is estimated based on the berth occupancy for Ro-Ro operations. The remaining capacity (87.5%) is divided among the bulk and other cargo based on their individual berth occupancy. Timber is included in the other dry bulk cargo.

(iv). **Capital cost:**

- (a). The overall capital cost is retained as estimated by the COPT in its earlier revised proposal dated 15 October 2013. In view of modification in the optimal capacity and berth occupancy, the apportionment of capital cost relating to cargo handling activity between different cargo categories has been revised by the COPT in the revised calculation dated 8 November 2013. The cargo-wise revised apportioned capital cost relating to cargo handling activities is brought out hereunder:

(₹ in crores)

Civil Costs	Total	Cars	Cement	Food Grains	Other Cargo
Total Costs - apportionment as per berth occupancy					
Connecting Bridges	2.80	0.35	1.13	0.34	0.98
Earth Pressure Relieving and Shore Protection arrangement	2.27	0.28	0.91	0.28	0.80
Foreshore road and footpath	0.77	0.10	0.31	0.09	0.27
Refurbishment of Roads and Drains	1.15	0.14	0.46	0.14	0.40
Construction of Security Compound wall	0.75	0.09	0.30	0.09	0.26

Specific Costs					
Cost of Existing Buildings	17.72	2.50	3.48	10.62	1.12
Refurbishment of Existing warehouses and other buildings	9.23			9.23	
Development of Car parking area	3.46	3.46			
Construction of flat type cement storage silo	39.96		39.96		
Total Civil Costs-Commodity Specific	78.12	6.93	46.55	20.80	3.83

Note: The total costs are distributed among different cargos in terms of their berth occupancy. The specific costs are allocated as per commodity-specific considerations.

(b). Cargo Handling Equipment Costs:

(₹ in crores)					
Mechanical & Electrical Costs	Total	Cars	Cement	Food Grains	Other Cargo
General Costs -divided as per berth occupancy					
General Power Supply and Illumination	2.31	0.29	0.93	0.28	0.81
Fire Fighting System	1.15	0.14	0.46	0.14	0.40
Specific Costs					
Cement Handling Equipment	44.07		44.07		
Bulk Cargo Handling Equipment	29.34			7.39	21.94
Total Mechanical & Electrical Costs	76.86	0.43	45.46	7.82	23.15

(c). Miscellaneous Costs:

As per the norms in Guidelines of 2008, miscellaneous cost is estimated at 5% of the total project cost.

(d). Total Capital Costs for cargo handling activity:

(₹ in crores)					
Costs	Total	Cars	Cement	Food Grains	Other Cargo
Civil Costs	78.11	6.93	46.55	20.80	3.83
Cargo Handling Costs	76.86	0.43	45.46	7.82	23.15
Miscellaneous	7.75	0.37	4.60	1.43	1.35
Total Costs	162.73	7.73	96.61	30.05	28.34

(v). Operating cost:

The overall approach for estimating power cost, fuel cost, license fee and other operating cost is same as followed in its earlier revised proposal dated 15 October 2013 and is already explained earlier and hence not reproduced here. Consequent to modification in the optimal capacity and berth occupancy, the operating cost also stands modified to that extent.

A summary of the revised operating cost estimates furnished by the COPT are given below:

(₹ in lakhs)					
Sl. No.	Particulars	Cars	Cement	Food Grains	Other Cargo
(i).	Power				
	(a). Variable cost	31.50	190.50	48.00	67.10
	(b). Fixed cost	3.60	69.20	9.70	27.90
	Subtotal (i)	35.10	259.70	57.70	95.00
(ii).	Fuel	--	22.60	43.40	--
(iii).	Repairs and maintenance				
	(a). Civil Assets (1% of Capital costs)	6.90	46.60	20.80	3.80

Sl. No.	Particulars	Cars	Cement	Food Grains	Other Cargo
	(b). Mechanical Assets (5% of Capital costs)	2.20	227.30	39.10	115.80
	Subtotal (ii)	9.10	273.80	59.90	119.60
(iv).	Insurance (1% of Gross Fixed Asset Value)	7.40	92.00	28.60	27.00
(v).	Depreciation				
	(a). Civil Assets (@3.34% p.a.)	23.20	155.50	69.50	12.80
	(b). Mechanical & Electrical Assets (@ 10.34% p.a.)	4.50	470.00	80.80	239.40
	Subtotal (iii)	27.60	625.50	150.30	252.20
(vi).	Other Expenses (5% of Gross Fixed Asset Value)	36.80	460.10	143.10	134.90
(vi).	License Fee	51.30	75.60	48.80	25.40
	Total Operating Cost	167.30	1809.30	531.80	654.10

- (vi). The port has maintained the ratio of apportionment of Annual Revenue Requirement (ARR) between cargo handling charges, storage charges and miscellaneous charges as per its earlier revised proposal dated 15 October 2013 in respect of cars, cement and food grains. With reference to other cargo, the COPT in its earlier proposal dated 15 October 2013 has apportioned 90% of the revenue requirement to handling charges and 5% each towards storage and miscellaneous charges in line with the norms prescribed in the 2008 guidelines for multipurpose cargo berth. In the revised proposal dated 8 November 2013 the port has stated that, in the case of other cargo, there is no storage space available within the project port area and hence the cargo handled from the vessels will be directly loaded into the trucks for movement and hence no revenue requirement is apportioned towards storage charges. The port has proposed to apportion 95% of the revenue requirement estimated for other cargo towards handling charges and 5% towards miscellaneous charges. Accordingly, the ratio of apportionment of Annual Revenue Requirement between the cargo handling charges, storage charges and miscellaneous charges for different cargo items envisaged to be handled is given below:

Tariff Group	Percentage of total revenue allocated			
	Cars	Cement	Food Grains	Others
Cargo Handling Charges	99	95	90	95
Storage charges	1	5	5	0
Miscellaneous charges	0	0	5	5

- (vii). Based on the above, the revised Annual Revenue Requirement from cargo handling activity apportioned cargo-wise is as below:

(₹ in lakhs)					
Particulars	Total	Cars	Cement	Food Grains	Others
Operating Costs	3162.50	167.30	1809.30	531.80	654.10
Capital Cost	16272.90	773.40	9661.20	3004.70	2833.60
Return on capital employed @16%	2603.66	123.74	1545.79	480.75	453.38
Total Annual Revenue Requirement (ARR)	5766.2	291.1	3355.1	1012.6	1107.4
Apportionment of ARR					
Cargo Handling Charges	5438.90	288.20	3187.30	911.30	1052.10
Storage charges	221.30	2.90	167.80	50.60	0.00
Miscellaneous charges	106.00	0.00	0.00	50.60	55.40

- (viii). (a). The COPT has made following modification in the estimation of ARR from berthing services:
- (i). The COPT has now estimated insurance at 1% of the total capital cost relating to berthing service in view of our advice which was not estimated in its earlier revised proposal.
 - (ii). The COPT has also estimated depreciation at 3.34% of the capital cost which was not estimated in its earlier revised proposal.
 - (iii). Apart from the above, the maintenance dredging cost estimated at ₹45.20 lakhs in the operating cost in its earlier proposal dated 15 October 2013 is revised to ₹49.7 lakhs after capturing fuel price escalation of 10%.
- (b). Revised Annual Revenue Requirement from berth hire estimated by COPT in its revised proposal dated 8 November 2013 is as follows:

Sl. No.	Particulars	₹ in lakhs
(i).	Capital Costs	
(a).	Total Berth Construction Cost	8670.70
(ii).	Return @ 16% of the Capital Cost	1387.40
(iii).	Operating Costs	
(a).	Other Operating Costs (1% of capital cost)	86.70
(b).	Annual dredging costs (including 10% fuel escalation)	49.70
(c).	Insurance (1% of capital cost)	82.60
(d).	Depreciation (3.34% of capital cost)	289.60
	Subtotal (iii)	508.60
(iv).	Total Annual Revenue Requirement (ii) + (iii)	1895.90

- (c). The COPT has furnished detailed working for arriving at berth hire charge.
- (ix). The COPT has reiterated its submissions made vide its earlier revised proposal dated 15 October 2013 for segregating the handling rate for cement into two services viz. (a). Transfer from ship to silo and (b). Packing and forwarding cement. It has furnished revised working in support of the rates proposed for cement for the above mentioned two cargo handling services:

Particulars	Unit	Cement
Annual Revenue Requirement estimated from cement	₹ Lakhs	3355.1
ARR apportioned to cement handling	₹ Lakhs	3187.3
- Transfer from ship to silo-share in cargo handling	In %	6.0%
- Transfer from ship to silo	₹ Lakhs	193.3
- Packaging & Forwarding-share in cargo handling	In %	94.0%
- Packaging & Forwarding	₹ Lakhs	2994.0
Handling Rate (foreign charges assumed to be 66.7% higher than coastal charges)		
- Share of coastal to foreign cargo	%	95/5
Overall Optimal Capacity for cement cargo	Units/ MTPA	1.03
Charges for Transfer from ship to silo		
Foreign	₹ Per Ton	30.33
Coastal	₹ Per Ton	18.19
Optimal Capacity for	Units/ MTPA	0.528
Charges for Packaging & Forwarding		
Foreign	₹ Per Ton	913.97
Coastal	₹ Per Ton	548.27

- (x). The revised storage charges are calculated based on the following inputs:

Particulars	Unit	Cars	Cement	Food Grains
Optimal capacity	Units/ MTPA	63875	0.507	0.461
Free Period	Days	5	7	7
% of Cargo that would attract storage charges	%	5%	20%	75%
Cargo Storage considered		➤ 80% of cargo to be evacuated in first 2.5 days ➤ 10% within 7.5 days ➤ 10% within 12.5 days	➤ 80% of cargo to be evacuated in first 3.5 days ➤ 10% within 10.5 days ➤ 10% within 17.5 days	➤ 33.3% of cargo to be evacuated in first 3.5 days ➤ 33.3% of cargo within 10.5 days ➤ 33.3% of cargo within 17.5 days

- (xi). The COPT has proposed the following tariff in its Reference Tariff Schedule attached along with its revised proposal:

- (1). **Berth Hire:**

GRT	Rate per GRT per hour or part thereof	
	Foreign going vessel (in ₹)	Coastal vessel (in ₹)
Any volume of GRT	1.93	1.16

- (2). **Cargo Handling charges:**

- (a). Car Handling:

Commodity	Unit	Rate in ₹	
		Foreign	Coastal
Cars	Per car	727.98	436.70

- (b). Dry Bulk Cargo Handling:

- (I). Cement- Transfer from ship to silo:

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Cement- Transfer from ship to silo	30.33	18.19

- (II). Cement- packaging & forwarding:

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Cement- packaging & forwarding	913.97	548.27

- (III). Food Grains:

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Food Grains	313.17	187.87

- (IV). Other Cargo (timber, bagged construction materials, bagged cement and bagged food grains):

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Other Cargo (timber, bagged construction materials, bagged cement and bagged food grains)	261.55	156.90

(3). **Storage charges:**

(a). Car Handling:

Description	Rate in ₹ per car per day or part thereof
Free period	5 days
First five days after expiry of free period	16.2
6 th day to 10 th day after expiry of free period	24.3
From 11 th day onwards	32.4

(b). Dry Bulk Cargo Handling:

Description	Rate in ₹ per MT per Day or part thereof	
	Cement	Food Grains
Free period	7 days	7 days
First seven days after expiry of free period	20.16	0.80
8 th day to 14 th day after expiry of free period	30.24	1.20
From 15 th day onwards	40.32	1.59

No storage space is provided for other cargo which includes timber, bagged construction material, bagged cement and bagged food grains. As a result no storage charges for the other cargo are calculated.

(4). **Miscellaneous charges:**

Particulars	Unit	Rate in ₹
Food Grains	Per metric ton	10.79
Other Cargo	Per metric ton	12.39

Notes:

- (i). The other cargo includes timber, bagged construction materials, bagged cement and bagged food grains.
 - (ii). The above miscellaneous charges include Environment and Management, sweeping of cargo on the Wharf, safety and security measures etc.
- (xii). The COPT has reiterated the Performance Standards as proposed by the port in its earlier proposal dated 15 October 2013 except for modifying the description of cargo. Instead of "wheat" the cargo terminology is modified to "foodgrain" and the other cargo is elaborated to specify the cargo covered in line with the cargo terminology proposed in the Reference Tariff Schedule.

14.1. The COPT subsequently vide its letter dated 2 December 2013, e-mail dated 4 December 2013, e-mails dated 9 December 2013, e-mail dated 10 December 2013 and e-mail dated 11 December 2013 has furnished further clarifications on the queries raised by us vide our letter dated 23 October 2013 and actions required to be taken by COPT after the joint hearing as conveyed vide our letter dated 1 November 2013 to the extent it was not addressed by the port in its earlier letter dated 8 November 2013. The port has also modified the calculation and furnished revised working. The main points submitted by the COPT in its further revised proposal dated 2 December 2013 and 4 December 2013 are summarised below:

- (i). It is confirmed that the proposed allotment of land for the Q1-Q3 Project is in line with the Land Use Plan of Cochin Port.
- (ii). It is confirmed that the 64 T Harbour Mobile Crane proposed to be deployed is power driven. The consumption of power estimated earlier at 250 units per hour has been reviewed. Power consumption by HMC is estimated at 150 units per hour after converting the average fuel consumption of 50 ltr per hour for a 60 T

HMC applying the conversion factor of 3 as per normal practice. The fuel consumption of 50 ltr per hour is taken based on the consumption of 70 ltr per hour for 100 T HMC ordered by the TAMP in certain other ports.

- (iii).
 - (a). As per norms, 3 pay loaders of 10 T capacity are allowed for the Multipurpose berth. COPT has proposed 2 pay loaders of 5 T capacity each for food grains and another 2 pay loaders of 5 T capacity exclusively for Cement bagging operation inside the silos, which will not be available for other cargo at the berth. The capacity of 4 Pay loaders proposed by COPT is 5 T as against the 10 T capacity pay loaders provided in the TAMP guidelines is due to lesser optimal capacity of cargo to be handled at port. In line with the norms, the total capacity of 4 pay loaders is 20 T which is below the total capacity of 30 T provided in the guidelines. Cars and Timber Logs do not require the services of pay loaders.
 - (b). COPT has proposed to add 2 nos. Log Grabbers at a total capital cost of ₹2 crores for handling Timber Logs on the shore in the capital cost for moving logs away from the berth during ship operation and also for loading logs to the trailers after segregation of the logs consignee wise for transport to the stack yard. Therefore, FLT's are not proposed, and only Log Grabbers are proposed to be added in the fleet of equipments which is explained under subsequent paras.
 - (c). The port has clarified that of the four pay loaders, two pay loaders are envisaged for cement handling at silos and two will be used for handling food grains. The working hours for two pay loaders at silos for handling cement at the bagging unit with 5 lakh tons capacity is calculated for 5000 hours i.e. 2500 working hours for single pay loader.
- (iv).
 - (a). Storage of Timber Logs inside the Terminal is not envisaged for the Q1-Q3 Project, and the Logs on landing will be shifted to the stack yard outside the project area. Two Log Grabbers are now envisaged to be deployed on the shore for segregating and loading logs for movement to the stack yard. The fuel consumption norms applicable for 10 T pay loader is adopted for the Grabbers since both are of similar capacity and fuel requirements is as ascertained from the operators of similar equipments at Kandla and Tuticorin ports. Calculation for handling timber and other cargo is furnished as separate working sheet.
 - (b). As stated earlier, no storage is envisaged for Other Cargo, and cargo will be directly delivered except for Timber Logs where incidental storage at the project area for shore handling operation will be required. However, such storage will be covered with in the Free Period, and therefore, storage charges are not proposed for Timber Logs.
 - (c). With respect to Other Cargo other than Timber Logs, viz. Construction Material and Bagged Cement, their total capacity at 0.82 Lakh TPA is rather insignificant to be provided with dedicated facilities. Therefore, such cargo is expected to avail storage, if required, outside the project area and be directly fed / cleared to / from the ship side. It is also confirmed that Cochin Port has godowns outside the project area, which can be rented out for such cargo. Therefore, storage charge is not proposed for such cargo. Thus, only Handling and Miscellaneous Charges is proposed for Timber Logs and other cargo. In the revised proposal the port has proposed separate shore handling charges for Timber Logs and other cargo in view of addition of log grabber which is exclusively for handling timber at shore.

The note governing the proposed rates is also suitably modified to state that the tariff for other cargo (bagged construction material, bagged cement and bagged food grain) will cover loading/ unloading of the cargo from the ship and for direct feeding/ delivery. In case of timber, the proposed rate covers loading/ unloading of the cargo from the ship and shore handling for movement to the stack yard outside the project area.

- (v). It has reiterated that the proposed Berth Hire at Q1-Q3 which are higher than the existing berth hire is ultimately borne by the cargo interests. It is possible for the Steamer Agents to get the payment fully reimbursed from them. The handling rate at the project area for ship to shore cement handling by Ambuja Cements Ltd., will be only ₹18.19 against the wharfage of ₹43.70. The increased Berth Hire proposed for the project area is largely offset by the reduced wharfage.

- (vi). Basis of arriving at the capital cost considered in the proposal is as follows:

Base cost (As provided in the Annexure 1 of tariff Proposal)	a	= a
Contingency (3% of base cost)	b	= a X 3%
Engg. & PMC (@ of 7%)	c	= (a+b) X 7%
Service Tax – Work Contract (@ of 2.8%)	d	= (a+b) X 2.8%
Environment management cost (@ 2%)	e	= (a + b +c +d) X2%
Total (used for Tariff proposal)	f	= (a +b +c +d +e)

- (vii). Since major portion of the area earmarked for car parking falls under flying funnel area, the ground level car parking is only possible and the second level car parking is not possible.

- (viii). The port has vide its e-mail dated 4 December 2013 further clarified that as per sub section 2.2. of the Tariff Guidelines of 2013, the reference tariff for each commodity/category shall be determined based on the reference Tariff for that commodity in the concerned Major Port Trust under the 2008 tariff Guidelines. Also, in case of no tariff has been fixed for that commodity at the same port then concerned Major Port Trust can propose to TAMP Tariff fixed under 2008 Tariff Guidelines in any other Major Port Trust which is representative enough for that commodity.

For the proposed Project, reference Tariff is neither available in COPT or in any other Major Port Trusts which represent the proposed project in terms of similarity. In view of the same, COPT has approached TAMP to fix the Reference Tariff under 2008 Guidelines for the proposed Project as per clause 2.4 of the 2013 guidelines.

- (ix). Mobile hopper is required for receiving the bulk cargo like food grains to the dumpers without spillage when the same is discharged by the MHC from the ship. This will be operated manually and the equipment will not require power or fuel for operation.

- (x). (a). The number of working hours as per the 2008 guidelines is 4000 hours. In our case the working hours considered in the proposal for two pay loaders is 3301(correct figure is 4302 hours for handling food grains (i.e.1001.28 hours per pay loader for stacking during ship operation + 2300 hours for truck loading operation) Similarly, 5000 hours (2500 hrs X 2 pay loaders) is considered for cement handling at bagging unit.
- (b). This project is unique in nature in cargo mix where cement is an automated one and other cargo is in conventional manner. Hence, the working hours for pay loaders mentioned above is essential these operations. The activities/handling operations of the pay loaders are complimentary activities to the main activity of ship to shore activity and further reduction will affect the productivity of the main activity.

- (xi). (a). The license fee for the water area is now estimated in the revised calculation. The water area considered is 3 Ha and license fee is estimated @ ₹0.1 lakh/ Ha/ annum. The license fee on water area of 3 Ha is apportioned between cargo items on berth occupancy and detailed calculation is furnished in this regard.
- (b). The port has clarified that as per letter No.PT-17011/55/87-PT dated 15 February 2000 issued by Govt. of India, Ministry of Surface Transport Department of Shipping (Ports Wing), COPT is allowed to collect License Fee for water area also @ of ₹1 per Sq Mtr/annum from the Port user. The COPT has forwarded a copy of the said letter of the MOST. Total Water front area of 3 ha. is envisaged for the proposed project for which total nominal licence fees of ₹30000/- (30000 Sq. mtr X ₹1 per sq. Mtr./annum) has been considered in the cost estimates.
- (c). The port has further clarified that licence fee of Re.1/Sq.Mtr per annum collected by the Port is a nominal licence fee.
- (d). The COPT has vide its email dated 10 December 2013 has stated that as per the Feasibility Report 1000 cars per vessel of 11000 GRT has been considered. It has, however, clarified for handling 1500 cars, the vessel size required is 15000 GRT and the existing draft 9.14 mtr. is sufficient for accommodating these vessel size.
- (xii). The COPT has vide its email dated 11 December 2013 has stated that the truck loading is taking place during the day time for the unhintered and continuous loading of the truck. 2 loading points are required which are supported by 2 bagging units. This is the prevailing practice in the existing cement terminal in Cochin Port Trust and also it is an operational requirements will facilitate uninterrupted operation since this machineries are required frequent maintenance and cannot rely on single unit.
- 14.2. To summarise, the main modifications done by the COPT are given below:
- (i). The port has added 2 log grabber for handling timber at shore at a total capital cost of ₹2 crores.
- (ii). The port has slightly modified the allocation of bulk cargo equipment between food grains and other cargo applying the correct ratio based on number of berth days.
- (iii). The power consumption for a 64T HMC is modified to 150 units/hour as against 250 units/hour estimated earlier. The revised power cost estimated by COPT is as follows:

Cost of Power	Unit	Cars	Cement	Food Grains	Others	Common
Optimal Capacity	Units/ MTPA	63875	1.028	0.469	0.447	
Berth Occupancy (days)	Days	64	205.6	62.6	178.8	
Power Cost (Variable)						
a). Usage of Crane		No	No	Yes	Yes	
Numbers of Hours of Operation in a day	Hours			16.0	16	
Power Consumption for Crane of 64T Capacity	Units/ Hour			150	150	
Total Units of Power Consumption from Crane Usage	Lakh Units			1.5	4.3	
b). General Illumination						
Norm for Power Consumption per Hectare provided in guidelines (for liquid bulk terminal): 2.4 Lakh unit/annum						

Cost of Power	Unit	Cars	Cement	Food Grains	Others	Common
Total Area Considered for Illumination	Hectares	1.50	1.65	1.42		2.58
Units Consumed	Lakh Units	3.60	3.96	3.41		6.19
Distribution of Common Power consumption as per berth occupancy	Lakh Units	0.78	2.49	0.76	2.17	
Total Units Consumed for Illumination	Lakh Units	4.4	6.5	4.2	2.2	
c). Cement Bagging						
Consumption rate of 4 Units/ Ton and capacity of 5 lakh Tons per annum	Lakh Units		20			
Total units Consumed (Variable Power)	Lakh Units	4.4	26.5	5.7	6.5	
Total Cost of Power (Variable) (Base Power Cost- ₹7.2/ Unit)	₹ Lakh	31.5	190.5	40.8	46.5	
Power Cost (Fixed)						
a). Total Fixed KVA Required for General Illumination and other common usage (600 KVA divided between all the commodities based on berth occupancy)	KVA	75.1	241.4	73.5	209.9	
b). Total KVA required for Crane Operation (500 KVA divided between food grains and other bulk cargo based on berth occupancy)	KVA			129.6	370.4	
c). Cement Bagging Unit Requirement	KVA		1200.0			
Fixed Charge for providing required KVA	₹ per month per KVA	400.0	400.0	400.0	400.0	
Total Fixed Power Cost	₹ Lakh	3.6	69.2	9.7	27.9	

- (iv). The fuel cost of ₹58.1 lakhs is now added in the estimates in view of two log grabbers considered in the revised working. For this purpose, the fuel consumption norms applicable for 10T pay loader is adopted for the log grabbers since both are of similar capacity. The handling time for moving the logs is estimated assuming 75% of Berth days for other cargo will be timber handling (i.e. 178.8 berth days × 0.75 = 134.1 days).

The handling time for moving the logs away from the berth during ship operation is considered. The same number of days is considered for moving the logs to the trailers after segregation of the logs consignee wise for transport to the stack yard. The detailed working is given below:

Items	Working Hours per equipment for timber Handling based on berth days (a)	No. (b)	Fuel requirement (Ltrs per Hour per Equipment) (c)	Unit Cost of Diesel (₹ Per Ltr) (d)	Total Fuel Cost (₹ Lakh) =a*b*c*d
Log Grabbers (For Ship to during shore operation)	2145.6	2	12	56.4	29.0
Log Grabbers (Truck Loading Operation)	2145.6	2	12	56.4	29.0
Total					58.1

- (v). The license fee for the water area is now estimated in the revised calculation at ₹0.30 lakhs for water area 3 Ha and license fee is estimated @ ₹0.1 lakh/ Ha/ annum. The license fee on water area of 3 Ha is apportioned between cargo items on berth occupancy and detailed calculation is furnished in this regard.
- (vi). Consequent to addition of log grabber, the estimate of repairs and maintenance, insurance, depreciation and other operating cost linked to capital cost has also been modified.
- (vii). The port has now segregated and furnished annual revenue requirement estimation for timber and other cargo viz. bagged construction materials and bagged food grains separately.

14.3. In the further revised proposal dated 2 December 2013, the port has retained the optimal capacity of the terminal as assessed in the revised proposal dated 8 November 2013. The cargo-wise capital cost, operating cost, revenue requirement, annual revenue requirement furnished by the COPT in the further revised calculation and the revised rates proposed by the COPT in its further revised proposal dated 2 December 2013 are given below:

(i). **Capital cost:**

- (a). The cargo-wise revised apportioned capital cost relating to cargo handling activities is brought out hereunder:

(₹ in crores)					
Civil Costs	Total	Cars	Cement	Food Grains	Other Cargo
Total Costs - apportionment as per berth occupancy					
Connecting Bridges	2.80	0.35	1.13	0.34	0.98
Earth Pressure Relieving and Shore Protection arrangement	2.27	0.28	0.91	0.28	0.80
Foreshore road and footpath	0.77	0.10	0.31	0.09	0.27
Refurbishment of Roads and Drains	1.15	0.14	0.46	0.14	0.40
Construction of Security Compound wall	0.75	0.09	0.30	0.09	0.26
Specific Costs					
Cost of Existing Buildings	17.72	2.50	3.48	10.62	1.12
Refurbishment of Existing warehouses and other buildings	9.23			9.23	
Development of Car parking area	3.46	3.46			
Construction of flat type cement storage silo	39.96		39.96		
Total Civil Costs-Commodity Specific	78.12	6.93	46.55	20.80	3.83

- (b). Cargo Handling Equipment Costs:

(₹ in crores)					
Mechanical & Electrical Costs	Total	Cars	Cement	Food Grains	Other Cargo
General Costs-divided as per berth occupancy					
General Power Supply and Illumination	2.31	0.29	0.93	0.28	0.81
Fire Fighting System	1.15	0.14	0.46	0.14	0.40
Specific Costs					
Cement Handling Equipment	44.07		44.07		
Bulk Cargo Handling Equipment	29.34			9.00	20.34
Log Grabber (for Timber)					2.00
Total Mechanical & Electrical Costs	78.86	0.43	45.46	9.42	23.55

- (c). **Miscellaneous Costs:**
As per the norms in Guidelines of 2008, miscellaneous cost is estimated at 5% of the total project cost.

- (d). **Total Capital Costs for cargo handling activity:**

(₹ in crores)

Costs	Total	Cars	Cement	Food Grains	Other Cargo
Civil Costs	78.12	6.93	46.55	20.80	3.83
Cargo Handling Costs	78.86	0.43	45.46	9.42	23.55
Miscellaneous	7.85	0.37	4.60	1.51	1.37
Total Costs	164.83	7.73	96.61	31.73	28.75

- (ii). **Operating cost:**

A summary of the revised operating cost estimates furnished by the COPT are given below:

(₹ in lakhs)

Sl. No.	Particulars	Cars	Cement	Food Grains	Other Cargo
(i).	Power				
	(a). Variable cost	31.50	190.50	40.80	46.50
	(b). Fixed cost	3.60	69.20	9.70	27.90
	Subtotal (i)	35.10	259.70	50.50	74.40
(ii).	Fuel	--	22.60	43.40	58.10
(iii).	Repairs and maintenance				
	(a). Civil Assets (1% of Capital costs)	6.90	46.60	20.80	3.80
	(b). Mechanical Assets (5% of Capital costs)	2.20	227.30	47.10	117.70
	Subtotal (ii)	9.10	273.80	67.90	121.60
(iv).	Insurance (1% of Gross Fixed Asset Value)	7.70	96.60	31.70	28.70
(v).	Depreciation				
	(a). Civil Assets (@3.34% p.a.)	23.20	155.50	69.50	12.80
	(b). Mechanical & Electrical Assets (@ 10.34% p.a.)	4.50	470.00	97.40	243.50
	Subtotal (iii)	27.60	625.50	166.90	256.30
(vi).	Other Expenses (5% of Gross Fixed Asset Value)	38.70	483.10	158.70	143.70
(vii).	License Fee				
	(a). For Land area	51.30	75.60	48.80	25.40
	(b). For Water area	0.04	0.12	0.04	0.10
	Subtotal (iv)	51.34	75.74	48.87	25.50
	Total Operating Cost	169.60	1837.00	568.00	708.30

- (iii). The port has maintained the ratio of apportionment of Annual Revenue Requirement (ARR) between cargo handling charges, storage charges and miscellaneous charges as per its earlier revised proposal dated 8 November 2013 in respect of cars, cement, food grains and others as given below:

Tariff Group	Percentage of total revenue allocated			
	Cars	Cement	Food Grains	Others
Cargo Handling Charges	99	95	90	95
Storage charges	1	5	5	0
Miscellaneous charges	0	0	5	5

- (iv). Based on the above, the revised Annual Revenue Requirement from cargo handling activity apportioned cargo-wise is as below:

(₹ in lakhs)

Particulars	Total	Cars	Cement	Food Grains	Other cargo including timber
Operating Costs	3282.9	169.6	1837.0	568.0	708.3
Capital Cost	16482.9	773.4	9661.2	3173.3	2875.0
Return on capital employed @16%	2637.3	123.7	1545.7	507.7	460.0
Total Annual Revenue Requirement (ARR)	5920.1	293.3	3382.8	1075.7	1168.3

Apportionment of ARR					
Cargo Handling Charges	5582.1	290.4	3213.6	968.2	1109.9
Storage charges	225.8	2.9	169.1	53.8	0.0
Miscellaneous charges	112.2	0.0	0.0	53.8	58.4

- (v). The port has furnished separate working segregating Other cargo into (a). timber and (b). other bagged cargo viz. bagged construction material and bagged food grains and has arrived at the rates separately for this two cargo categories.
- (vi). There is no change in the berth hire calculation.
- (vii). The COPT has proposed the following tariff in its Reference Tariff Schedule attached along with its revised proposal:

(1). **Berth Hire:**

GRT	Rate per GRT per hour or part thereof	
	Foreign going vessel (in ₹)	Coastal vessel (in ₹)
Any volume of GRT	1.93	1.16

(2). **Cargo Handling charges:**

(a). Car Handling:

Commodity	Unit	Rate in ₹	
		Foreign	Coastal
Cars	Per car	733.41	439.96

(b). Dry Bulk Cargo Handling:

(I). Cement- Transfer from ship to silo:

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Cement- Transfer from ship to silo	30.74	18.44

(II). Cement- packaging & forwarding:

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Cement- packaging & forwarding	921.85	553.00

(III). Food Grains:

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Food Grains	332.77	199.62

(IV). Other Cargo (bagged construction materials, bagged cement and bagged food grains) and Timber log:

S. No.	Commodity	Rate in ₹ per Ton	
		Foreign	Coastal
1.	Other Cargo (bagged construction materials, bagged cement and bagged food grains)	243.98	146.36
2.	Timber log	262.71	157.59

(3). **Storage charges:**

(a). Car Handling:

Description	Rate in ₹ per car per day or part thereof
Free period	5 days
First five days after expiry of free period	16.3
6 th day to 10 th day after expiry of free period	24.5
From 11 th day onwards	32.7

(b). Dry Bulk Cargo Handling:

Description	Rate in ₹ per MT per day or part thereof	
	Cement	Food Grains
Free period	7 days	7 days
First seven days after expiry of free period	20.34	0.85
8 th day to 14 th day after expiry of free period	30.51	1.28
From 15 th day onwards	40.68	1.70

No storage space is provided for other cargo which includes timber, bagged construction material, bagged cement and bagged food grains. As a result no storage charges for the other cargo are calculated.

(4). **Miscellaneous charges:**

Particulars	Unit	Rate in ₹
Food Grains	Per metric ton	11.46
Other Bagged Cargo	Per metric ton	11.56
Timber log grabbers	Per metric ton	13.57

Notes:

- (i). The other cargo includes timber, bagged construction materials, bagged cement and bagged food grains.
- (ii). The above miscellaneous charges include Environment and Management, sweeping of cargo on the Wharf, safety and security measures etc.

15. The proceedings relating to consultation in this case are available on records at the office of this Authority. An excerpt of the comments received and arguments made by the concerned parties will be sent separately to the relevant parties. These details will also be made available at our website <http://tariffauthority.gov.in>.

16. With reference to the totality of information collected during the processing of this case, the following position emerges:

- (i). The proposal of the COPT is to fix reference tariff for handling car by RORO method as well as cement, food grains, timber and other cargo at the existing berth nos.Q1 to Q3 but to be reconstructed and developed under Public Private Partnership (PPP) mode on Design, Build, Finance, Operate and Transfer (DBFOT) basis.

- (ii). The proposal is based on the Revised Guidelines for Determination of Tariff for Projects at Major Ports, 2013, effective from 9 September 2013, issued by the Ministry of Shipping. Clause 2.4 of the said guidelines stipulates that if in the view of the Major port Trust, the tariff determined for a particular commodity under 2008 guidelines at that Major Port Trust or any other Major Port Trust is not a representative Reference Tariff for that commodity, then the Major Port is free to approach this Authority with a proposal to fix Reference Tariff under 2008 guidelines for the project giving detailed and sufficient justification.

The COPT has submitted that upfront tariff for the proposed combination of car handling with the multi cargo berth is not available in its own port. It has also reported that upfront tariff representing the proposed project in terms of similarity is not prescribed elsewhere in any other major port. It is in this context, the COPT has come up with a proposal for fixation of Reference Tariff for the proposed combination of the multi cargo, generally following the principles of 2008 Guidelines. The proposal filed by COPT is found to be in line with provisions contained in the revised guidelines of 2013 and hence proceeded accordingly.

- (iii). Before proceeding with the analysis of this case, it is relevant to mention here that in the original proposal filed by the COPT in September 2013, the port had proposed two set of different rates, one for existing user i.e. Gujarat Ambuja Cement Limited (GACL) name reportedly changed to M/s.Ambuja Cement Limited (ACL) and another rate for common user for cement handling.

The tariff guidelines of 2013 do not envisage notification of Reference Tariff for two separate set of rates for existing user with whom the port has already entered into an Agreement and another rate for common user. The port was, therefore, requested to examine whether the proposal can be modified to exclude berth no.Q1 which is mainly used by the existing user ACL for handling cement.

In this context, the port has clarified that total length of berth nos.Q1 to Q3 is 410 mtrs. and at any point of time it can accommodate only 2 vessels. The port has categorically stated that berth no.Q1 cannot be separated from the project or else it will restrict the project facility to accommodate only one ship at a time. This will significantly reduce the project capacity. The port has further clarified that though M/s.Ambuja Cements Ltd. is permitted to have receipt facility for cement at Q-1 berth, the said berth remains at the disposal of the port as a common user facility without giving any exclusivity to ACL. However, as per the MOU, in return for the MGT provision, vessels of ACL get berthing priority at Q-1. Hence, the COPT has requested to consider the proposal for fixation of reference tariff for Q1 to Q3 berths, as a whole.

The COPT has, however, at our instance, vide its proposal dated 15 October 2013 revised its original proposal of September 2013 and proposed a common rate for handling of cement without any reference to existing user already operating in the port. In the said revised proposal, the port has segregated the handling of cement into two services one is transfer of cement from ship to silo which will apply commonly to all users handling cement; and, a separate rate is proposed for packaging and forwarding of cement which is proposed to apply to the users availing cement bagging and forwarding facility. The users/ shortlisted bidders have been consulted on the revised proposal filed by the COPT dated 15 October 2013.

It can be seen from the factual position brought out in the earlier paragraphs that the original proposal filed by COPT in September 2013 has been revised by the COPT three times vide its letter dated 15 October 2013, 8 November 2013 and the final revised proposal is filed by COPT vide its letter dated 2 December 2013. The modification/ revisions made by the COPT in its revised proposals dated 8 November 2013 and final revised proposal dated 2 December 2013 are mainly to address some of the concerns expressed by users/ short listed bidders, queries

raised by us and to remove the deficiency in its earlier revised proposal dated 15 October 2013. The final revised proposal filed by COPT on 2 December 2013 along with the information/ clarifications furnished during the processing of the case is considered in this analysis.

It is noteworthy that during the processing of this case, the COPT has put forth strong arguments to address the comments / objections made by users/ users association and shortlisted bidders and wherever found necessary the port has also modified the proposal to address their concern and the COPT deserves to be complimented.

- (iv). One of the users of the existing berth ACL has stated that it has entered into an Agreement with COPT in the year 2001 for a period of 30 years for Q1 berth. The COPT has also confirmed this position. The COPT has stated that as per the MOU with the ACL, cement is pumped from vessel by ship pumps using its own facilities from the vessels at Q1 berth. The port has stated that backup area of Q1 berth has also been given on lease to the ACL for cement storage and packing unit. Back up area behind Q1 is beyond the scope of this project. Both, the COPT and the ACL have admitted that as per the MOU, cement vessels of ACL are to be accorded priority berthing at Q1 berth for discharging cement. The ACL has apprehension that the existing provisions of the MOU with the COPT on priority berthing to vessels should not be affected in any way by awarding the project to the BOT operator. The ACL have also made other submissions that its operations and the installations for conveying cement from ship to silo should not be hampered/ disturbed in any way during handling other cargoes and hence has requested the COPT to ensure that all the issues raised are mentioned in the RFQ/ tender as well as in the final contract awarded to the developer to avoid causing any disadvantage or injustice to them in their existing and future operations.

The COPT has affirmed that Priority berthing to ACL vessels will be ensured at berth Q1 and provision for the same will be incorporated in the Bid documents. The COPT has also stated that it being the landlord port will meticulously take note of issues raised by the ACL in the better interest of the optimal utilization of the created facility and unhindered movement of the cargo for ACL while drafting the Concession Agreement to be entered with the BOT operator.

In this context, it is clarified that this Authority is not mandated to go into individual agreements entered by the COPT with individual parties and hence would not like to go into any individual agreements entered by the port with any of the users. It is for COPT to address the grievance / concern of the users with reference to the proposed project while inviting bids for the project by making necessary disclosures forthright in the bid documents as well as in the Concession Agreement to be entered by the port with the successful BOT operator as agreed by the COPT during the proceedings of this case.

By way of abundant caution, it is clarified here that the instant case for determining Reference Tariff for multipurpose cargo handling terminal with RORO cars is being processed for common user of the project without reference to any individual users already availing the berthing facility at these berths. The tariff is being determined for the optimal capacity adopting the norms available in the 2008 guidelines for the project facility envisaged by the port under this project.

- (v). The COPT has stated that the upfront tariff guidelines of 2008 do not prescribe norms for fixation of upfront tariff for a RoRo terminal for car handling but contain norms for multipurpose berth handling bulk and break bulk cargo. The proposal of COPT is based on the norms and parameters prescribed in tariff guidelines of 2008 for a multipurpose berth, wherever relevant, for assessing the optimal capacity of the terminal, capital cost and operating cost. For car handling through RoRo vessels, the COPT has borrowed the principles to the extent relevant

followed in the upfront tariff determined for RoRo cum multipurpose berth in Chennai Port Trust (CHPT) vide Order No.TAMP/26/2012-CHPT dated 17 August 2012. For handling cement, the COPT has reportedly considered past data of actual handling of cement at its port for similar facilities envisaged to be developed under this project. The COPT has formulated its proposal based on the Feasibility Report (FR).

(vi). Optimal Terminal capacity:

The COPT has first assessed the optimal capacity of the terminal for handling car and arrived at the berth days for the same. The optimal capacity for cement, food grains and other cargo consisting of mainly timber, bagged parcels like cement, other construction material and food grains has been assessed for the remaining berth days available after excluding the berth days occupiable by cars.

IMC Limited has stated that based on the current traffic pattern and hinterland profile, separate tariff may be fixed for fertilizers, salt, sand, iron and steel and news-prints also. In this regard, the COPT has gone by the Feasibility Report which anticipates cargo traffic profile to cover car, cement, food grains and other cargo (timber, bagged foodgrains, bagged construction materials and bagged cement). The judgment of the COPT with regard to the cargo profile is relied upon and considered in this analysis.

(a). Optimal Terminal Capacity of car:

As stated earlier, the tariff guidelines of 2008 do not prescribe norms for handling cars. This Authority has determined upfront tariff at Chennai Port Trust for handling RORO vessels with multi-level parking in combination with multipurpose cargo vide its Order No.TAMP/26/2012-CHPT dated 17 August 2012.

Since no norms are available for Ro-Ro type facility in the tariff guidelines of 2008, the COPT has arrived Reference Tariff for Ro-Ro facility envisaged in the project based on the similar lines followed in the upfront tariff determined for Ro-Ro cum multi-purpose berth at Chennai Port Trust (CHPT). It is, however, observed that various parameters adopted by COPT are not in line with the parameters followed in the upfront tariff of CHPT Order dated 17 August 2012 for Ro-Ro facility which is again tabulated hereunder to facilitate cross reference to the analysis done in the subsequent paragraphs.

Sl. No.	Description	Parameters considered in the upfront tariff fixation of car (Ro-Ro) facility at CHPT – Order No.TAMP/26/2012-CHPT dated 17 August 2012	Parameters considered by COPT for handling car at Q1 – Q3 berths
A.	Optimal Quay Capacity		
(i).	Handling rate of car	136 cars/ hour	50 cars/ hour
(ii).	Ship day output/ day	3264 cars/ day (136 cars/ hour x 24 hours)	1000 cars/ day (50 cars/ hour x 20 hours)
(iii).	Optimal Quay Capacity	8,33,952 cars/ annum (3264 cars/ day x 365 days x 70%)	2,55,500 (1000 cars/ day x 365 days x 70%)
B.	Optimal Yard Capacity		
(i).	Area earmarked for car parking card	10,300 sq. mtrs.	15,000 sq. mtrs.
(ii).	Car parking level	6 stories (Multi-level parking Ground + 5)	1 storey (No Multi-level parking)
(iii).	Total area after considering multi-level parking	61,800 sq. mtrs. (10,300 sq. mtrs. X 6 stories)	15,000 sq. mtrs. (No Multi-level parking)
(iv).	Total area required to park a car after providing margin for access and clearance. (COPT has provided 25% margin)	10 sq. mtrs./ car	15 sq. mtrs./ car

Sl. No.	Description	Parameters considered in the upfront tariff fixation of car (Ro-Ro) facility at CHPT – Order No.TAMP/26/2012-CHPT dated 17 August 2012	Parameters considered by COPT for handling car at Q1 – Q3 berths
(v).	Stack height at each storey	1	1
(vi).	Total Ground Slots (multi-level parking considered by CHPT) [COPT – single level parking]	5,000	1,000
(vii).	Average dwell time	3	4
(viii).	Optimal Yard Capacity	4,25,833 cars	63,875 cars
C.	Optimal Capacity for car handling (lower of the two capacities)	4,25,833 cars	63,875 cars

(b). Optimal yard capacity of handling car:

- (i). The optimal yard capacity of car determined by the COPT is 63,875 cars per annum.
- (ii). Of total 7.15 hectares of area proposed to be allotted to the BOT operator for the project, the port has earmarked 1.5 hectares area for car parking, which is expected to accommodate about 1000 cars as per COPT. Therefore, the number of ground slots considered by COPT is 1000.
- (iii). (a). It is relevant here to mention that in the CHPT case, CHPT has envisaged multilevel parking of ground plus five levels. In 10,300 sq. mtrs. area proposed to be allotted by CHPT for car parking, the optimal yard capacity of car assessed by CHPT is 4,25,833 cars. As against that, optimal yard capacity assessed by COPT is 63,875 cars for 15,000 sq. mtrs. of area proposed to be earmarked for car parking. Thus, there appears to be under utilization of the car parking yard in comparison to CHPT. The COPT was, therefore, requested to consider improving various parameters adopted by them in terms of average dwell time, etc., at par with the parameters adopted at CHPT and also consider the possibility of having multi-level parking as considered in the CHPT recognising the benefits/ advantages of a multi-level parking vis-à-vis the proposed open parking yard at COPT in terms of efficiency in operations.

As regards multi-level parking, the COPT has submitted that the CHPT project envisages to handle export cars (outgoing purposes). These cars are to be brought in from the manufacturing units in the hinterland and need to be stocked in multi-level parking. Whereas, the requirement of car parking in COPT is only for incoming cars, through coastal cargo, which are for delivery in hinterland. The total number of cars envisaged to be handled is only 50,000 per year. Hence, the multi-level parking is not warranted. Moreover, the port has clarified that the area earmarked for car parking falls under flying funnel area, hence the ground level car parking is only possible and the second level car parking is not possible. The COPT has stated that the Concessionaire would be required to ensure that these restrictions are not breached in activities undertaken. The port has confirmed that the above position of only ground level parking will also be informed to the prospective bidders.

In view of the above clarification furnished by the port that more than ground level parking is not envisaged due to height restriction, the proposal of the COPT for ground level car parking is accepted. The port is advised to make the position explicit in the bidding process as well as in the Bid document as well as in Concession Agreement that ground level car parking is only envisaged for the proposed project. The entire analysis is done relying on the submission made by the COPT that car parking is possible at ground level only and not beyond that. The COPT being a land lord port is advised to ensure that this condition is maintained throughout the project period by the Concessionaire. As a measure of abundant caution, this Authority brings to the notice of the COPT that if the parking plan as mentioned above undergoes a change, the reference tariff approved by this Authority advises COPT to ensure that the BOT operator approaches this Authority for a review of tariff to capture the change in the parking plan.

- (b). The COPT has assumed 15 sq. mtr. of area to park a car as against parameter of 10 sq. mtr. considered in the CHPT tariff Order as well as in the MBPT Order recently passed. The port has clarified that it has considered average size of the car at 4.50m x 1.80m after allowing side clearance of 0.60m and end clearance of 0.50m, for positioning the area comes to 12m². Additionally, 25% of the area is provided towards access and circulation roads. Thus, a total area of 15m² is required per car and the same is provided accordingly.

As argued by COPT, the parking slots at CHPT have been identified for specific types of cars as they come from the manufacturing units and hence space can be utilized optimized. Whereas in Cochin port, the cars to be handled are for the usage in hinterland, which are mostly mid-sized and therefore it may not be of the same type. Hence, the area for parking a car is determined based on general mid-size car.

In this context, it is clarified that at the CHPT the parking area per car is considered at 10 sq. mtr. and the same parameter is adopted in MBPT. In fact, the MBPT while responding to one of the comments of the car manufacturer has stated that the average storage area for big and small automobile units is expected to be 9 sq. mtrs. The parking area adopted by the COPT at 15 sq. mtr. per car is found to be 50% higher in comparison to storage area parameter per car adopted at the two other Major Port Trusts. Based on the size of car considered by the COPT, the parking area for a car comes to 7.2 sq. mtrs. It is seen that the COPT has provided area for side clearance for each car and has also provided further cushion of 25% for access and circulation and assessed parking area of 15 sq. mtrs. per car which is more than double the area 7.2 sq mtr. Since the parking area per car has been considered at 10 sq. mtr per area in both the CHPT and the MBPT, justification furnished by the COPT is not sufficient to justify adopting a different parameter only in the case of COPT. Hence, the parking

area parameter in case of COPT is moderated and considered at 10 sq. mtr. per car in line with the parameter adopted in CHPT and MBPT.

- (c). The COPT has considered the stack height at one car per car slot and has considered average dwell time of 4 days as against improved average dwell time of 3 days adopted in the case of CHPT. The port has explained that in their case the car handling is coastal import and delivery has to be taken by a number of dealers spread over Kerala compared to the arrival of cars in Chennai Port from manufacturing units. Therefore, the evacuation of the cars will not be at the same pace as in Chennai and the consignee may require more dwell time at the port terminal in comparison to CHPT. The above position explained by the COPT is relied upon in the absence of any specific norm available in this context and accordingly the average dwell time of 4 days as considered by the COPT is reckoned with for assessing the optimal yard capacity of handling car.
- (d). Based on the modification with reference to parameter of parking area per car considered by us at 10 sq mtr/car instead of 15 sq mtrs/ car assumed by COPT as explained above, the optimal yard capacity for cars works out to 95,813 cars per annum as against 63,875 cars assessed by the COPT.

Incidentally, even the INSA in their comments have pointed out that the optimal capacity of cars assessed by the COPT is on the lower side.

(c). Optimal Quay Capacity of car:

- (i). The COPT has assessed the optimal quay capacity of car at 2,55,500 cars per annum applying handling rate of 1000 cars per day for 365 days at 70% optimal capacity utilisation. i.e. (1000 cars/ day x 365 days x 70%).
- (ii). The port has clarified that of 2 vessels that can be accommodated at berths Q1 to Q3, i.e. total berth days is 730 (365 days x 2 vessels), of which the port assumes one berth will be occupied by cement vessels carrier at all the time due to higher share of the optimal capacity. Hence, one berth with berth occupancy of 365 days will be shared by Ro-Ro vessels, food grains and other cargo vessels.
- (iii). The COPT has considered the handling rate of car at 50 numbers assuming 10 drivers in two shift handling 5 cars per driver per effective working hour and hence for 20 working hours per day for two shifts, the port has considered the handling rate of car at 1000 nos. per day.

In the CHPT Order dated 17 August 2012, the handling rate of 3264 cars per day is considered as proposed by the port based on the average of actual performance statistics at the berth achieved by the CHPT during the last 3 years. The same is considered in the MBPT Order as well while determining the reference tariff for off shore terminal for handling car and general cargo.

When requested to justify the reasons for considering scaled down handling rate of car 1000 cars per day as against handling rate 3264 cars/ day in the CHPT upfront tariff Order, the main contention of the COPT is that at Chennai Port, cars handled are meant for export purposes. Moreover, the CHPT project envisages large size vessel to bring around 3000 cars per vessel whereas at COPT the project envisages mostly coastal import of cars and it does not envisage large carriers due to draft restrictions.

It appears that the COPT has arrived at the optimal capacity of the terminal at 63,875 attempting to maintain it closer to the traffic projections of 50,000 cars in the Feasibility Report. Even INSA in their comments have observed that volume of car proposed by COPT could be much more, especially if movement of cars from Southern region to North West India materializes. The INSA has, however, not indicated the definite improvement in the optimal capacity of the car handling.

Clause 3.3.2. of the 2008 tariff guidelines stipulates that the upfront tariff is to be determined for optimal capacity of the terminal irrespective of the traffic forecast. In the light of the above clause and considering that the project is for a long horizon for 30 years wherein advancement in technology, and other improvements can improve the overall traffic and optimal capacity of the proposed terminal and also bearing in mind that handling rate considered in the CHPT is 3264 tonnes per day, there is a case to improve the handling rate of cars at COPT as well. However, keeping in view the constraint at the COPT that the large car carriers are not expected at COPT like that in CHPT due to draft limitation at the berth, it is not correct to improve the handling rate at 3264 cars per day. However, the handling rate of cars at the COPT is improved to 1500 cars per day. As rightly stated by INSA, number of drivers should not be the restrictive factor in handling cars. Moreover, the improved handling rate of 1500 cars per day is done after ascertaining the position from COPT that 15000 GRT vessel carrying parcel size of 1500 cars can call the proposed berth of 9.14 mtrs. draft. It is relevant here to state that the handling rate of 1500 cars/ day matches with the improved parameter of 1500 cars in the parking area also. This is also in line with the approach followed by the COPT of matching the handling rate of cars with the parking plan of cars. In any case, the improvement in the handling parameter of car at 1500 car/ day will not impact the overall optimal capacity for car handling since in the instant case, capacity of parking yard is found to be the limiting factor.

- (iv). It is seen that the port has calculated the optimal quay capacity of the cars for 365 days x 24 hours applying 70% utilisation. The COPT has, however, not considered the percentage share of the cars prescribed in the formula in the 2008 guidelines for determining the optimal quay capacity. In the absence of this data provided by the port, the assessment of optimal quay capacity will not reflect the correct position as it assumes as only cars will be handled at the berth for all the days which is not in fact the case here. In the absence of this parameter on percentage share of car in the optimal quay capacity calculation provided by the COPT, it is not possible on our own to consider this factor. In any case, the yard capacity for parking cars is the limiting factor and hence assessment of optimal quay capacity of cars only remains a formality.

- (v). The optimal quay capacity is assessed at 3,83,250 cars per annum following the approach followed by COPT of considering 365 days with 70% utilization factor and considering the improved handling rate of 1500 cars/ day as against optimal quay capacity of 2,55,500 cars per annum assessed by the COPT.
- (vi). As per 2008 guidelines, the optimal capacity of car is considered at 95,813 cars per annum being lower of optimal quay and optimal yard capacities.
- (d). Optimal capacity for Cement, food grains and other cargo like timber and bagged parcels like cement, construction material and food grains:
 - (i). The proposal of COPT envisages to handle cement, food grains and other cargo comprising of bagged cargo like cement, construction material and food grains. As stated earlier, the proposal of COPT is to use the spare capacity of the berth for handling cement, food grains, and other cargo after handling optimal capacity of cars. Based on the handling rate of 1000 cars per day, the port has calculated the berth days required for handling the optimal capacity of 63,875 cars at 64 days by rounding off 63.8 days ($63,875 / 1000$). The COPT had in its initial proposal considered 3 hours per vessel additionally for berthing and de-berthing and arrived at total berth days of 71.9 for handling cars at the proposed terminal. Subsequently, at our instance, additional time provided for berthing / de-berthing of cars has been excluded by the port and the berth days for car is considered by port at 64 days. The optimal capacity for handling cement, food grains and other cargo is calculated for the remaining 447 days [i.e. 511 days at 70% utilization for 2 berths minus 64 days for car handling ($365 \text{ days} \times 2 \text{ berths} \times 70\% - 64 \text{ days for car handling}$)].

In our analysis, following the approach adopted by the port, the berth days required for handling the optimal capacity of cars at 95,813 works out to 63.9 days which is rounded off to 64 days ($95,813 / 1500$). Therefore, the optimal capacity of the berth for handling cement, food grains, timber and other cargo is arrived for the remaining 447 berth days as considered by the COPT.

 - (ii). The COPT had initially assessed the optimal capacity of the cement at 10.09 Lakh Tonnes Per Annum (LTPA), food grains at 4.61 LTPA and other cargo at 4.391 LTPA tons per annum considering number of berth days as 439.10 after considering 71.9 berth days for handling cars. Subsequently, at our instance, the port has modified the berth days for cars at 64 days excluding additional time provided for berthing and de-berthing time and consequently revised the number of berth days for handling cement, food grains and other cargo at 447 days. Consequently, the optimal capacity is revised by COPT to 10.28 lakh Tonnes Per Annum for cement, food grains at 4.69 lakh tonnes per annum and other cargo including timber at 4.47 lakh tonnes per annum.
 - (iii). The COPT has considered the share of cargo vessels carrying cement cargo, food grains and other cargo at 46%, 14% and 40% respectively. The port has clarified that percentage share of different cargos are considered in terms of the total number of days the cargo occupies berth and is reportedly based on the traffic assessment carried out in the feasibility report. The percentage share of cargo groups considered by the port in the optimal capacity computation is relied.

- (iv). The 2008 guidelines for multipurpose cargo terminal prescribe norms for handling rate at 7500 tonnes per day for dry bulk cargo for parcel size of vessel lower than 30,000 tonnes, 4000 tons for steel and bagged cargo and 2500 tons for other cargo prescribed. These norms prescribed in the guidelines are with reference to the provision of 3 Electrical Level Luffing Wharf cranes of 20 Tons capacity.

As stated earlier, the cement handling involves transfer of cargo from ship to silo through ship pumps. No handling equipment is envisaged by the COPT for the transfer of cargo from ship to silo. The port has stated that the parcel size of cement carriers handled at their port is 15000 tons to 16000 tons and on an average a time of 3 effective days is taken for unloading the cement from vessels. Accordingly, handling rate for cement is considered at 5000 tonnes per day. The port has furnished the actual productivity of cement handling achieved by one of the existing users M/s.ACL at 4867 Tonnes Per Day (TPD) in the year 2010-11, 3727 TPD in the year 2011-12 and 4047 TPD in the year 2012-13. The port has confirmed that the handling rate of 5000 tonnes per day has been considered based on the actual performance achieved by existing similar cement handling facility of ACL. In view of the above clarification furnished by the port which is supported by the actual performance reportedly achieved for handling cement at COPT, and keeping in view that the handling rate of 7500 tonnes per day given as norm in the 2008 guidelines for dry bulk cargo is with reference to deployment of 3 ELL wharf cranes, which is not involved in the proposal of COPT, this Authority is inclined to accept the handling rate for cement at 5000 TPD at the level considered by the port.

- (v). The port proposes deployment of one Mobile harbour crane of maximum 64T capacity as against norm of three number of level luffing crane each of 20T capacity prescribed in the 2008 guidelines. For reasons explained in the subsequent paragraphs, the deviation proposed in the deployment of HMC is accepted.

The port has stated that handy size vessel with 15000 tonnes of parcel size of food grains is envisaged. Hence, an unloading rate of 7500 TPD for food grains with HMC of 64 tonne is considered by the port. The port has further justified that the rated output capacity of HMC is expected to be 7680 tons which is closer to the ship day output norm of 7500 tons per day. For other cargo, the COPT has considered the handling rate of 2,500 tonnes per day adopting the handling norms prescribed in the upfront tariff guidelines for multi-purpose berth.

As brought out earlier, the output norms prescribed in the 2008 guidelines for multipurpose berth with 3 ELL crane is 7500 T/ day for dry bulk - food grain and fertilizer for parcel size lower than 30,000 tonnes and 2500 for other cargo.

Recognising that aggregate capacity of 3 Level luffing crane each of 20 tonne comes to 60 tonne which is closer to the 64 T HMC proposed to be deployed and also recognizing that in similar case in the upfront tariff Order of VPT for multipurpose cargo terminal the handling rate for dry bulk cargo 7500 tonnes/ day and 2500 tonnes per day for other cargo was considered for 60T HMC which is as per the norm prescribed in the 2008 guidelines, the handling rate of 7500 tonnes/ day for food grain and 2500 tonnes per day for other cargo is considered as estimated by the COPT.

- (vi). Based on the percentage of cargo share and handling norms discussed at preceding paragraphs, the COPT has arrived at the optimal capacity of cement at 10,28,100 tonnes per annum, food grain at 4,69,350 tonnes per annum and Other cargo at 4,47,000 per annum calculated for 447 berth days, following the formula prescribed in the guidelines for fixation of upfront tariff. Since the parameters for arriving at optimal capacity are adopted as considered by the COPT in respect of cement, foodgrain and other cargo, the optimal capacity is considered as assessed by the COPT for these cargo categories.
- (vii). The upfront tariff guidelines of multipurpose berth do not require assessment of yard capacity and, therefore, the capacity of the terminal is equal to the optimal capacity determined for the quayside.
- (viii). To summarise, the optimal capacity of the proposed Ro Ro cum multipurpose cargo berth is considered at 10,28,100 tonnes per annum of cement, 4,69,350 tonnes per annum of food grains and other cargo at 4,47,000 per annum aggregating to optimal capacity of cargo at 19,44,450 tonnes per annum and optimal capacity of cars at 95,813 per annum.
- (ix). It is relevant here to state that the COPT has proposed two cement silos and reported that each of these silos has a total capacity of 25000 tonnes. Based on the actual performance of the existing cement user with similar facility, the turnover of 20 is assumed by the COPT and accordingly the capacity of silos comes to 5 lakh tonnes per annum which is closer to 5.28 lakh tonnes of the optimal capacity of cement likely to avail the cement bagging and packaging facility. Though there is minor mismatch, it is assumed that the silo capacity assumed will meet the optimal capacity of the cement expected to avail this facility.

(vii). Capital Cost:

The COPT had in its earlier revised proposal dated 8 November 2013 estimated the total capital cost of the proposed Ro Ro for handling cars cum and multipurpose berth for handling cement, food grains and other cargo at ₹249.44 crores of which ₹86.71 crores is considered towards berthing activity, ₹162.73 crores towards car and cargo handling activity.

Subsequently, the COPT has made certain modifications in the estimate of capital cost. The port has included 2 numbers of log grabbers for handling timber logs at shore which was not considered by COPT earlier. Consequently, the estimates of operating cost, estimated revenue requirement and proposed rate are also modified. In view of this modification arising out of consideration of log grabber exclusively for handling timber, the COPT in the revised proposal has proposed separate handling charges for timber and other cargo instead of uniform rate proposed earlier for the said other cargo items.

In the revised proposal dated 2 December 2013, total capital cost of the proposed project is estimated slightly at higher level of ₹251.54 crores of which ₹86.71 crores is considered towards berthing activity and ₹164.83 crores is towards car and cargo handling activity.

(a). Berthing activity:

- (i). As per the upfront tariff guidelines, the capital cost for berth hire services includes cost of construction of berth and cost of dredging, if any, carried out alongside the berth. The total cost of

construction of berth is estimated by the COPT at 86.71 crores comprising of cost of construction of berth estimated at ₹82.58 crores and other cost is estimated at 5% amounting to ₹4.13 crores. The port has not estimated cost of dredging alongside the berth as no increase in draft alongside the berth is contemplated by the port.

The capital cost estimates furnished by the COPT are stated to be at the base cost estimated in the Feasibility report. The port has stated that it has provided for contingency @ 3%, PMC and engineering cost @ 7%, service tax @ 2.8% and environment management cost @ 2% on the base capital cost to arrive at the total capital cost for each items. None of the users/ short listed applicant have made any adverse comment on the capital cost estimates of the COPT. Similar cost components, apart from base cost have been considered while fixing the upfront tariff in respect of multipurpose berth of KOPT, Mumbai Port Trust off shore cargo terminal also and hence is considered in this case too. The guidelines of 2008 require to consider the estimates of capital cost as given by the port. Thus, the capital cost for berthing construction estimated at ₹82.58 crores is relied upon and considered in this analysis.

In addition; the COPT has considered 5% of the capital cost estimated for berth though there is no specific provision in the 2008 guidelines for considering other cost under berthing service. In this context, it is relevant here to mention that though the upfront tariff guidelines of 2008 stipulate estimating miscellaneous capital cost @ 5% of the total of the estimated civil cost in case of handling activity, the guidelines do not specifically provide for estimation of miscellaneous capital cost under berthing service. It is noteworthy that in case of the upfront tariff determined for various projects of Visakhapatnam Port Trust (VPT), Coal terminal at V.O. Chidambaranar Port Trust (VOCPT), Mormugao Port Trust (MOPT), multipurpose and mechanized berths at Kolkata Port Trust (KOPT), this Authority has considered the miscellaneous capital cost at 5% under the berthing service. Keeping in view the position maintained in the above mentioned cases, the miscellaneous capital cost under the berthing activity at 5% of the civil cost of berth is taken into account, as proposed by the port.

In view of the above, the capital cost for berthing service is considered at ₹86.71 crores, as estimated by the port.

- (ii). It is relevant here to state that though the COPT in its proposal has stated that no increase in depth of berth is contemplated, while addressing to one of the points made by INSA, the COPT has commented that Concessionaire shall bear all the expenditure for increased draft, if any, in future as the operator has the flexibility to increase the draft of the berths in future, if there is a demand. As per the revised guidelines of 2013, Reference tariff caps approved by this Authority are applicable for the entire project period subject to annual indexation at 60% of the WPI as per clause 2.2. Hence, there will be no recourse available to the terminal operator to recover any such additional cost of investment if proposed to be invested in future. The above guideline position was brought out and the COPT was advised to examine and, if necessary, modify its proposal considering the larger horizon of the project of 30 years period, vessel of larger

size GRT can call the proposed berth. The COPT has, however, reiterated its stand that 9.14m draft is only considered and that the increase in draft is not a firmed up position. In case improved facilities are provided through increase of draft, the total GRT of vessel calling the terminal may increase, which might result in additional revenue to the BOT operator and it may compensate the investment and operational cost required for providing and maintaining the increased depth, as stated by the COPT. The COPT has endorsed the guideline position that the operator should adhere to the reference tariff even though improved facilities are provided in the terminal. By way of abundant caution, it is clearly stated that the entire analysis is proceeded relying on the position indicated by the COPT that the draft of the berth Q1 to Q3 is 9.14 mtrs. and it does not envisage increase in the draft as such and that the Operator will adhere to the Reference Tariff notified in the guidelines subject to annual indexation allowed as per the guidelines.

(b). Cargo handling activity:

(i). Civil construction cost:

The COPT has estimated the total capital cost towards civil construction at ₹78.12 crores for cargo handling activity.

The normative list of civil works prescribed in the 2008 guidelines for a multi-purpose terminal includes cost of berth apron and approach, storage yard, transit sheds, roads, rail tracks, buildings, water supply, etc.

In the absence of specific norms for a RoRo terminal and considering that car parking is a facility comparable to storage yard in a multipurpose berth, capital cost estimated for development of car parking area considered by the COPT for car appears to be relevant and hence is considered in line with the approach followed in the CHPT upfront tariff Order dated 17 August 2012.

Cement handling envisaged in the project involves transfer of cement from ship pumps to silos, for which no equipment is envisaged. However, for packing and forwarding facility, the COPT has estimated cost for two cement silos under civil cost. The port has justified that the two cement silos are required to meet the optimal capacity of the cement likely to avail cement bagging and forwarding facility which is brought out in the earlier paragraphs. It is relevant here to mention that capital cost of silos has been allowed in Visakhapatnam Port Trust (VPT) for fertilizer handling terminal. That being so, capital cost of silo estimated by COPT is considered in this case also though this item is not included in the broad list of civil works in the guidelines.

The COPT has considered capital cost of ₹17.22 crores towards the existing building proposed to be transferred to the BOT operator. The COPT has stated the project envisages to allot three warehouses and two sheds on "as is where is" condition. The port has furnished the book value of buildings proposed to be transferred to the BOT operator at ₹40.07 lakhs. The port has independently assessed the value of existing buildings i.e. transit sheds and warehouses to be handed over to the operator by appointing a valuer at ₹17.22 crores and has included the same in the estimate of capital cost.

Recognising that the port proposes to hand over the constructed warehouse and transit sheds to the BOT operator which otherwise the operator would have to erect, the estimate of ₹17.72 crores being the assessed value of the existing buildings which is supported by copy of the valuation report is relied upon and considered at the level estimated by the port. The port has confirmed that necessary adjustment entries will be made in its Annual Accounts when the transfer of assets is affected.

The estimate of other civil related cost i.e. connecting bridges, earth pressure relievers, roads, compound wall, etc., is supported with detailed working in the Feasibility Report and hence is relied upon and considered.

The port has furnished detailed cargo-wise break-up of capital cost. The COPT has stated that the estimated capital cost directly relevant to a particular cargo is considered for that particular cargo. The estimated capital cost for the common facilities are apportioned based on the berth occupancy. The port has estimated berth occupancy of car, cement, food grains and other cargo including timber at 64 days, 205.6 days, 62.6 days and 178.8 days respectively aggregating to 511 days. Accordingly, the percentage share based on berth occupancy is arrived at 12.5%, 40.24%, 12.25% and 35% respectively for apportionment of common capital costs as well as common operating cost in its proposal. Based on the detailed working furnished by the port and recognising that none of the users/ short listed applicants have made any adverse remark in the apportionment of the common capital costs and common operating cost, the ratio of apportionment considered by the COPT is relied upon and maintained in our analysis also.

The COPT has not estimated capital cost towards other items of civil cost mentioned in the guidelines like for rail tracks, presumably because the project specific conditions may not require such facilities.

(ii). Equipment cost:

The upfront guidelines of 2008 specify a normative list of equipment for a multipurpose berth which comprises 3 nos. of Level Luffing Wharf crane of 20 Tonne capacity with grab / hook attachments, 6 Nos. Fork Lift Trucks (FLT) and 3 Nos. Pay loaders each of 10 T capacity and Power, Lighting & Communication. The COPT has considered equipment deployment plan cargo-wise. The capital cost of equipment specifically relevant for particular cargo is considered for the relevant cargo item. The capital cost of common equipment are apportioned between relevant cargo items on the ratio of berth occupancy.

- (a). The guidelines prescribe norm of 3 nos. of level luffing wharf crane of each 20 Tonne Capacity with grab/ hook attachments. As against that the COPT has considered 1 number of HMC of 64T capacity. Recognising that the aggregate capacity of three level luffing crane of 20T capacity comes 60T which is closer to the proposed HMC capacity of 64T, this Authority accepts the deviation proposed by the COPT of considering 1 HMC as against three numbers of Electrical Level (ELL) cranes. In this

context, it is relevant to mention here that though the upfront guidelines prescribe deployment of ELL cranes at the multipurpose berth, deployment of Harbour Mobile Cranes (HMC) in lieu of ELL Cranes has been considered in fixation of upfront tariff at some other major port trusts like Paradip Port Trust (PPT), VO Chidambaram Port Trust (VOCPT), New Mangalore Port Trust (NMPT) and Kolkata Port Trust (KOPT) for cargo operations.

The port has addressed the point raised by the Cochin Steamer Agents Association and has confirmed that the estimate of HMC includes cost of grabs for bulk cargo and timber log handling.

INSA and few other user associations have opined that one mobile harbour crane proposed by the port is not adequate for berth length of 410m. They are of the view that the Mobile crane provided will not be able to deliver productivity of 3 numbers of 20 T ELL Cranes. In this context, the COPT has clarified that out of the two berths having total length of 410 mtrs. which can accommodate two vessels at a time, one of the berths is always likely to be occupied by cement carrier / car carrier. Thus, effectively only berth will be available for handling only one vessel carrying foodgrains, timber and other cargo at any point of time for which one HMC is adequate. The COPT has confirmed that one MHC of 64 T capacity will have a productivity of 7500 tonnes per day in the case of foodgrains and 2500 tonnes per day in the case of timber and other cargoes, which is in line with the norms for handling rate prescribed in the tariff guidelines for 3 nos. of ELL crane. The port has emphatically confirmed that one HMC of 64T is adequate for achieving the optimal throughput of the terminal for food grains, timber and other cargo.

- (b). The COPT has proposed 4 number of payloaders each of 5 tonne the aggregate capacity of which will be less than the aggregate capacity of 3 numbers of pay loaders each of 10 tonnes envisaged in the 2008 guidelines. The port has confirmed that Cars and Timber Logs do not require the services of pay loaders. Further, lower capacity pay loaders is stated to have been proposed based on the optimal capacity of specific cargo to be handled in the project availing the service of pay loaders.

Clause 3.2 of the Guidelines permits this Authority to make necessary adjustments in the norms based on the justification to be furnished by the concerned port trust keeping in view the port specific conditions. Therefore, based on the justification furnished by the COPT about the peculiarity of their project requiring deployment of two pay loaders exclusively at the silos for cement handling and two pay loaders for handling food grains and recognising that though there is deviation in the number of payloaders proposed at four instead of prescribed norm of three, the aggregate capacity of four pay loaders for the reasons explained by the COPT is below aggregate capacity of three pay loaders prescribed in the guidelines of 2008, the deviation proposed by the COPT in the number of pay loaders is accepted.

- (c). The broad equipment deployment norm for the multipurpose cargo terminal prescribe 4 Fork Lift Truck (FLT)s each of 5T and 2 numbers of FLTs each of 10 T capacity. The COPT has not proposed any FLTs in its proposal. However, in the revised tariff calculation dated 2 December 2013, the COPT has proposed to add 2 nos. of log grabbers at a total capital cost of ₹2 crores for handling Timber Logs on the shore. The port has clarified that this equipment is for moving logs away from the berth during ship operation and also for loading logs to the trailers after segregation of the logs consignee wise for transport to the stack yard. The COPT has clarified that FLTs are not proposed for the proposed project and instead two log grabbers are proposed to be added in the fleet of equipment. It is relevant here to state that in none of the other Major Port Trust involving timber handling, log grabber is proposed in upfront tariff fixation. In the instant case, the port has stated that no storage facility for timber logs is envisaged under this project. The port plans to provide only incidental storage near wharf till the movement of timber logs onto trailer for transport to stack yard which falls outside the PPP project. Relying on the submissions made by the COPT that 2 Log grabbers are proposed by port in place of 6 number of fork lift Trucks specifically to handle timber logs at shore, the deviation proposed by the port in deployment of log grabber is accepted in view of powers available to this Authority as per clause 3.2. of the 2008 guidelines.
- (d). The port has proposed 4 numbers of dumpers and one mobile hopper for handling food grains and other cargo. The 2008 guidelines do not prescribe any specific norms for dumpers and mobile hoppers. In case of fixation of upfront tariff at other Major Port Trusts, number of dumpers as proposed by the port has been allowed in the absence of any specific norms in this regard.

As regards mobile hoppers, the COPT has clarified that this equipment is envisaged for transfer of food grains from HMC to dumper without any spillage. It is relevant to state that this Authority in the VPT upfront tariff Order No.TAMP/16/2011-VPT dated 29 June 2011 for mechanized handling of dry bulk cargo has allowed the proposal of the VPT for deployment of 2 number of Hoppers along with 2 HMC of 60T, 3 front end loaders. Clause 3.2. of the guidelines for upfront tariff setting gives flexibility to this Authority to make necessary adjustment in the norms based on the justification furnished by the port in view of the port's specific conditions having impact on the norms prescribed in the guidelines. Since the deployment of the above mentioned equipment is reported to be as per the Feasibility Report and also since, none of the users/ prospective bidders have objected to the equipping plan envisaged by the COPT, and based on the clarification furnished by the COPT this Authority is inclined to consider the equipping plan of dumper and mobile hopper for handling food grain as envisaged by the COPT.

- (e). As stated earlier, handling of cement from ship to silos directly is envisaged through ship pumps hence the port has not proposed any equipment for this transfer of cargo. However, for the cement users availing facility at silo, the COPT has proposed 2 numbers of cement packaging unit each of 125 T capacity with one automatic truck loading unit and capital cost relating to Power supply and two pay loaders. The 2008 guidelines do not prescribe any specific norms for cement packaging unit.

With regard to cement packaging plant the port has stated that the average working of the cement packing units is considered at 10 hrs. per day and average output is 100 tonnes per hour for a plant with rated capacity of 125 t per hour and has assessed annual capacity of the 2 packing units at 6 lakhs tonnes per annum (i.e. 2 nos. equipment x 12 months x 25 days x 10 hours x 100 tonnes / hour handling rate). The COPT has further clarified that the truck loading is taking place during the day time and hence number of hours is considered at 10 hours. It has submitted that for the unhindered and continuous loading of the truck and 2 loading points are required which are supported by 2 bagging units. The port has reported that this is the prevailing practice in the existing cement terminal in Cochin Port Trust and also it is an operational requirement which will facilitate uninterrupted operation since this machineries require frequent maintenance and cannot rely on single unit. In view of the justification furnished by the COPT on the cement packing plant and since the deployment of the two cement packaging units with automatic truck loader and power supply proposed by the COPT is in view of specific method envisaged for handling of cement for which no specific norms are available in the 2008 guidelines and as the proposed equipment is reported to be as per the Feasibility Report and also since, none of the users/ prospective bidders have objected to the equipping plan envisaged by the COPT for cement packaging and recognising that the proposed equipping plan for cement handling is based on the existing cement handling operations being carried out at the COPT, this Authority is inclined to consider the equipping plan for cement packing and forwarding as proposed by the COPT.

- (f). The COPT has segregated the capital cost relating to cement into two activities viz. transfer of cement from ship to silo and packing and forwarding. The COPT anticipates that of the total optimal capacity estimated for cement at 10.28 lakh tonnes per annum, 5.00 lakh tonnes per annum of the optimal capacity of cement will be directly transferred from the ship to the silo of the existing user which is outside the scope of this project and hence will not avail cement packaging and forwarding facility. The remaining 5.28 lakh tonnes per annum capacity of cement will avail the facility of packing and forwarding. Accordingly, the COPT has considered the capital cost relating to packaging and forwarding of cement comprising of two cement bagging plant, 1 automatic truck loader, 2 pay loaders and power supply cost towards packaging and forwarding activity only.

- (g). It is seen that the capital cost relating to general lighting and fire fighting is apportioned between all the relevant cargo groups based on the ratio of berth occupancy which is accepted.
- (iii). The Miscellaneous capital cost estimated by COPT at 5% of the civil & equipment cost is as per the provisions in the guidelines and hence the same is considered.
- (iv). In view of the position explained above, the total capital cost for equipment under car handling activity is considered at ₹7.73 crores, transfer of cement from ship to shore at ₹6.75 crores, packing and forwarding of cement at ₹89.87 crores, ₹31.73 cores for food grain and ₹28.75 crores towards other cargo including timber aggregating to ₹164.83 crores as estimated by COPT.
- (v). The upfront tariff guidelines of 2008 state that the capital cost of civil works and equipment should be updated to capture the prevailing market rate while fixing the upfront tariff cap. The COPT was, therefore, requested to confirm that the estimates of both civil and equipment cost reflect the prevailing market rate and was also requested to substantiate the estimates with documentary support in form of budgetary quotations, rate analysis, etc. Despite request the port has not furnished any documentary evidence in support of the estimates. The capital cost estimates furnished by the COPT are stated to be based on the estimates contained in the Feasibility report which are reported to be base cost and port has provided towards contingency @ 3%, PMC and engineering cost @ 7, service tax @ 2.8% and environment management cost @ 2%. As explained earlier, similar cost components have been allowed while fixing the upfront tariff in respect of multipurpose berth of KOPT, Mumbai Port Trust off shore cargo terminal also and hence is considered.

Based on the clarification furnished by the port and considering that the guidelines require the capital cost to be considered as per the estimates of the Port Trust, the capital cost estimates for equipment as estimated by the COPT is considered.

With reference to the point made by the IMC Limited about rupee devaluation which may result 25-30% increase in the cost of imported equipments, the COPT has clarified that the estimates of capital cost pertain to July 2013. It has confirmed that the imported items in the project is marginal and hence variation in the foreign exchange will not have significant effect on the overall cost of the project.

- (c). To sum up, the total capital cost estimated by the COPT at ₹251.54 crores is considered without any modification.
- (viii). This Authority has adopted the ROCE at 16% for the upfront tariff cases to be decided during the year 2013-14 which is considered for arriving at the proposed tariff caps for this project.

(ix). Operating Cost:

In the absence of separate norms for a RoRo terminal, the COPT has reportedly adopted the norms for a multipurpose berth in the estimation of operating costs. The operating cost estimates of COPT are discussed in the following paragraphs.

(a). Power cost

- (i). The norms prescribed in the upfront tariff guidelines of 2008 for a multipurpose berth for estimation of power and fuel cost is with reference to the handling equipments envisaged to be deployed for cargo operations. In this case, the reported position is that the car handling activity does not involve deployment of any handling equipment. The transfer of cement from ship to silo is through ship pumps. Hence for these two handling services power and fuel cost are not estimated. However, power cost for general illumination is apportioned based on the percentage share of berth days for each of the cargo category.

The port has considered power consumption for general illumination at 2.4 lakh units/ annum per hectare adopting the norms prescribed in the 2008 guidelines for a Liquid bulk terminal. Since the norms prescribed for a multipurpose berth do not prescribe any norm for estimation of power cost with reference to general lighting, the approach adopted by the COPT in borrowing the norm prescribed for a Liquid bulk terminal, and the power cost estimated by COPT representing power requirement for lighting the area which is essential is considered. It is relevant to mention that this is in line with the approach followed in the CHPT upfront tariff Order for RORO cum multipurpose cargo terminal dated 17 August 2012, VPT upfront tariff Order for multipurpose cargo terminal for WQ 6 berth approved vide Order 12 February 2009 and other upfront tariff Orders as well.

- (ii). For the purpose of lighting for general illumination, the COPT has considered 1.50 hectares of area for car parking, 1.65 hectares for Cement (for packaging and forwarding activity), 1.42 hectares for Food grains, and 2.58 hectares of common area totaling to 7.15 hectares in the estimation of power cost for area lighting. The power consumption for common area is thereafter apportioned between the cargo categories in the ratio of the berth occupancy for estimating of power cost. The power requirement for area lighting is estimated at 2.4 lakh units per hectare per annum based on the norms prescribed in the 2008 guidelines for a Liquid bulk terminal.

- (iii). Apart from general lighting, the COPT has estimated power cost for the HMC envisaged to be deployed. The COPT in its initial as well as revised proposal dated 8 November 2013 has estimated total power consumption at 250 units/ hour for 64 T HMC which is stated to be based on details gathered from various manufacturers. It is relevant here to state that for the HMC considered in all the other Major Port Trust, based on the proposal filed by the concerned port trust, fuel cost has been estimated for HMC. The port was, therefore, specifically requested to confirm whether the HMC proposed to be deployed for the project is power driven and not fuel driven. The COPT has confirmed that the 64T HMC proposed to be deployed is power driven based on power driven HMC in operation in the port.

The COPT has subsequently reviewed the consumption of power in its revised proposal dated 2 December 2013 and downscaled to 150 units per hour. The port has explained that fuel consumption of 70 ltrs/ hour has been allowed by this Authority for 100T HMC. For 64T HMC, COPT has assumed 50ltr/ hour of fuel based on the consumption of 70 ltr per hour for 100 T HMC. The port has stated that a conversion factor of three is applied on the fuel consumption of 50 ltrs/ hour to arrive at the power consumption of 150 units / hour and the conversion factor is stated to be reportedly as per normal practice which is relied upon. Based on the clarification furnished by the port and recognising that there are no specific norms for power consumption for a power driven HMC nor there is any precedence in any other Major Port Trust as this is the first such case, the power consumption factor assumed by the COPT is relied upon and considered.

- (iv). For cement bagging, the port has estimated power consumption of 4 units/ tonne. There are no specific norms prescribed in the guidelines for cement bagging plant. It is relevant to mention that in the upfront tariff determination of mechanized fertilizer handling terminal in VPT, the power consumption considered is 0.50 unit per tonne for bagging plant in Order No.TAMP/26/2009-VPT dated 27 November 2009. The COPT was, therefore, requested to explain the basis for adopting the power consumption parameter at 4 units per tonne for bagging plant and justify it with reference to the technical specification of the equipment proposed to be deployed with detailed working and also explain the reasons for variation from the power consumption considered for fertilizer bagging plant at the VPT. The COPT has clarified that operational techniques involved in cement storage, retrieval and bagging operations are totally different from the operations involved in the case of finished fertilizer bagging at VPT. The power requirement of 4 units per tonne of cement has been considered by COPT reportedly based on the power consumption details of one of the cement handling user i.e. ACL carrying out similar operations in COPT. The port has also substantiated it with the copy of electricity bills for the last one year from October 2012 to September 2013 of similar facilities handled by ACL. Based on the total power consumption of ACL furnished by COPT for a year and taking into consideration 3 lakh tonnes of cement annually handled by the ACL as understood from COPT, the average power consumption comes to 4.14 units per tonne which is closer to 4 units per tonne assumed by COPT for cement bagging plant. It is understood from COPT that the major power consumption by ACL is for cement bagging plant only. In view of the above position and recognising the submission made by COPT that 4 units/ tonne of power consumption is based on existing cement user operating similar facility in the port, the power consumption for cement bagging plant estimated by the COPT at 4 units per tonne is relied upon and accepted.

The COPT has estimated power consumption of cement bagging plant of 4 units per tonne for 5 lakh tonnes of optimal capacity of cement aggregating to 20 lakh units of power. The optimal capacity of cement availing packaging and forwarding is 5.28 lakh tonnes as stated earlier. Hence, in our analysis the power cost is estimated for 5.28 lakh tonnes considering 4 unit/ tonnes which comes to 21.12 lakh units of power.

- (v). Apart from variable power cost, the COPT has estimated the fixed power cost for each cargo category based on the equipment proposed to be deployed. The port has considered fixed 600 KVA for general lighting and apportioned between all cargo viz. cars, cement (packaging and forwarding), food grains and other cargo in the berth days. For cement bagging plant, the port has also considered power requirement of 1200 KVA and 500 KVA is considered for HMC and units are apportioned between food grains and other cargo in the ratio of berth days of these two cargo.

It is relevant here to state that at the other Major Port Trusts including earlier upfront tariff proposal of COPT for coal terminal and liquid cargo terminal, power cost has not been estimated by ports as fixed and variable separately. The unit rate of power cost includes both fixed and variable cost in all other upfront tariff cases including COPT. It is relevant here to state that in the COPT Order No.TAMP/74/2012-COPT dated 15 February 2013 relating to fixation of upfront tariff for coal handling terminal at Q8 and Q9 approved by this Authority, the unit rate of power considered is ₹8.57 per unit based on the documentary evidence then furnished by the port. In the instant case, the variable unit rate of power considered by COPT is ₹7.20 per unit, which is supported by copies of electricity bill raised by the port on one of the existing user from May 2013 to September 2013. For fixed power cost rate of ₹400 per KVA is considered which is also substantiated with copies of electricity bill raised by COPT on one of the existing users. The total power cost estimated by the COPT is ₹419.67 lakhs per annum and the average per unit cost comes to ₹9.77 for the total consumption of 42.95 lakh units estimated by the COPT. The total average per unit cost of power for the period May 2013 to September 2013 based on the electricity bills raised by the COPT on one of the existing users works out ₹9.83 which is closer to the average per unit cost of power of ₹9.77 based on the approach followed by COPT of estimating the variable power cost and fixed power separately. That being so, the approach of the COPT of considering the fixed and variable cost which is supported with detailed working is accepted subject to modification in the number of hours as explained in the subsequent paragraphs. Consequent to modification in number of hours for estimation of power cost, the fixed power cost gets spread over wider base of the power consumption in units and hence the average unit cost of power in our working comes to ₹9.55 per unit.

- (vi). The COPT has estimated power cost for HMC for 16 hours per day for berth occupancy of 62.6 days for food grains and 178.8 days of other cargo aggregating to 3862.4 hours as against working hour norms of 4000 prescribed in the upfront tariff guidelines for multipurpose cargo terminal for estimation of power and fuel cost. As stated earlier, the COPT has considered total berth days of 511 considering two vessels can be accommodated at the berth nos.Q1 to Q3 after applying the factor of 70% optimal capacity. Subsequently, while estimating power cost, the COPT seems to have again applied the 70% utilization factor in number of hours per day and has estimated 16 hours per days for each of the equipment. As per the norms prescribed in the Upfront Tariff guidelines of February 2008, the optimal capacity is reckoned as 70% of the maximum capacity. The norms do not allow separate cushion in each of the parameters relevant for determining the

capacity. The number of hours is, therefore, modified considering 24 hours for estimating the power cost eliminating the double counting of 70% factor considered by the COPT in the number of hours. Accordingly, the total hours considered for estimation of power cost of HMC is 5793.6 hours [(62.6 days + 178.8 berth days) * 24 hours].

It is relevant here to state that for dedicated terminal handling facility, this Authority has based on the proposal of the port estimated power/ fuel cost for 6132 hours i.e. 365 days x 24 hours x 70% for overall capacity of the terminal as against 4000 working hours norms prescribed in the guidelines.

In the instant case, however, it is seen that due to different cargo items proposed to be handled in the project, total number of days the HMC deployed for handling food grain and other cargo comes to 241.4 days as against normative berth days of 255. That being so, the estimation of power cost for HMC on number of days of deployment of HMC works out to 5793.6 hours which is accepted and considered in this analysis as against 6132 hours considered in the other upfront tariff Orders.

(vii). Subject to modification explained in the above analysis, the variable power cost is estimated at ₹31.51 lakhs for car, ₹198.55 lakhs for handling (packaging and forwarding) cement, ₹46.22 lakhs estimated for food grains and ₹61.95 lakhs estimated for other cargo including timber aggregating to ₹338.22 lakhs as against estimate of COPT at ₹31.51 lakhs for car, ₹190.45 lakhs for handling cement, ₹40.81 lakhs for food grains and ₹46.50 lakhs for other cargo aggregating to ₹309.3 lakhs. In view of reasons given earlier, the fixed power cost as estimated by COPT is considered.

(viii). As regards pay loaders, fuel consumption norm prescribed in the 2008 guidelines for a multipurpose cargo terminal for a 10T pay loader is 12 ltrs/ hour. The port has proposed four numbers of 5 T pay loader and has estimated fuel consumption of 8 litres per hour which is reportedly based on the technical details for a 5T payloader capacity consuming about 70% of the fuel consumption of 10T capacity payloader. Based on the clarification furnished by the port, the fuel consumption of 8 litres per hour per pay loader as estimated by the COPT is considered.

For dumpers, the COPT has estimated fuel cost @ 6 litres / hour. In this regard, it is relevant here to mention that the fuel consumption for dumper/ dumper trucks considered by this Authority in the past falls in the range between 4 litres to 13.33 litres per hour per dumper. The COPT has stated that fuel consumption of 6 litres per hour for dumper is reportedly based on the discussions with the various operators of similar type of equipment which is relied upon in the absence of any specific norm in this regard.

(ix). The guideline prescribe norm of 4000 working hours for estimating the cost of other equipment like pay loaders, fork lift truck etc., envisaged for a multipurpose cargo berth. In the instant case, the COPT has estimated fuel cost for each dumper at 1001.28 hours. When requested the port to justify the basis and explain the reasons for deviation in the number of working hours from the level prescribed in the guidelines, the COPT has

clarified that based on the optimum capacity of the food grain cargo and handling capacity of the MHC, the vessel operation will be for a total period of 62.58 days for handling food grain. The fuel is required for operational period and hence estimated for operation period of 1001.28 hrs. (62.58 days x 16 hours i.e. 1001.28 hrs.). In the modified cost statement prepared by us, the number of hours is considered as 24 hours for reasons explained earlier as against 16 hours considered by COPT. Accordingly, the total estimated operational hours of dumpers comes to 1501.92 hours per dumper per annum (i.e. 62.58 days x 24 hours) as against normative working hours of 4000. It is seen that prima facie there is gross underutilization of dumpers. In fact, even IMC Limited has pointed out that handling equipments like Dumpers and Pay loaders proposed by COPT are not optimally utilized. They have suggested the port to propose hire/ lease model rather than ownership model. The COPT has, however, not agreed to the suggestion of IMC Limited. The COPT has stated that the 2008 Guidelines do not mention about hire/ lease model of the equipment. The port has contended that if these handling equipments are reduced from the capital cost, the operating cost and the estimated revenue requirement will reduce. Consequently, it will result in lower tariff and possibility of selling the PPP project will be remote. This argument of COPT for deployment of equipment which are likely to be underutilized is not tenable. In fact, this Authority has, for reason stated, allowed hire cost of some of the equipment in the upfront tariff Order of JNPT CFS.

The COPT has subsequently submitted that their project is unique where cement handling is automated one and other cargo – i.e. foodgrains and timber is handled in conventional manner. The COPT has submitted that pay loaders and dumpers are complimentary equipment to facilitate ship to shore activity and reduction in numbers of pay loaders and dumpers will reduce the productivity of main handling equipment for ship shore transfer and thereby impact the achievement of optimal capacity of the terminal. In view of the above position, and also recognising that there are no specific norms prescribed in the 2008 guidelines relating to number of dumpers in the broad list of equipment or for that matter relating to estimation of power cost for dumpers for multipurpose cargo terminal, approach adopted by the COPT in estimating the power cost with reference to number days of operation is considered subject to modifying the number of hours to 24 hours per day instead of 16 hours adopted by the COPT.

For pay loaders as well, the COPT has estimated fuel cost for 1001.28 hours per pay loader for 2 numbers of such equipment for stacking of the food grains during unloading operation from ships. The number of estimated operational hours per pay loader is modified as 1501.92 hours per pay loader per annum (62.58 berth days x 24 hours) as against 1001.28 hours considered by the COPT in line with the approach followed for estimation of number of hours for dumpers.

The port has clarified that the same set of two pay loaders will be used for loading of food grains to trucks at the stack yard for which the port has assumed 2300 hours per pay loader. Considering the optimal capacity of food grains at 4,69,350 tonnes per annum and relying on the handling rate of pay loader at 100T/day per pay loader as considered by the COPT, the

number of hours per pay loader is considered at 2347 hours (i.e. 4,69,350 tonnes /100 Tonnes per hour / 2 pay loaders) as against 2300 hours considered by COPT.

Apart from the 2 payloader for handling food grain, as stated earlier, the COPT has proposed deployment of two pay loaders exclusively of handling cement at silos and has estimated fuel cost for 5000 hours based on the cargo throughput of 100 tonne/hour / pay loader. Of the optimal capacity of cement assessed at 10,28,100 tonnes, 5 lakh tonnes of cement will be directly transferred from ship to the user's silo which is outside this project and hence is not expected to avail bagging and truck loading facility at silo. This means 5,28,100 tonnes of capacity of cement will avail the cement bagging plant facility. The number of hours of operation of two pay loader relying on the handling rate of 100t per pay loader assumed by the COPT is considered at 5281 hours as against 5000 hours assumed by the COPT.

In view of the above modification, the total number of working hours for fuel consumption by two payloaders for handling food grain is considered at 5303.84 hours as against 4302 hours considered by the COPT. Total hours for two pay loaders for cement bagging plant is considered at 5281 hours as against 5000 hours considered by the COPT. It is seen that operational hours per pay loader estimated for handling food grain is 2651.9 hours and 2640.5 hours for cement bagging plant which is lower than the working norms of 4000 prescribed in the 2008 guidelines.

This situation of underutilization of equipment arises because the project of COPT envisages different types of cargo viz. cement, cars and food grains and timber involving different kind of equipment exclusively for handling each type of cargo instead of proposing homogenous cargo. This is resulting into overall underutilization of each of the equipment. As reported by the COPT, if number of payloaders is reduced for any of the above operation, it may have an impact on achieving the handling rate considered for the main equipment i.e. HMC for transfer of cargo from ship to shore/silo. In view of the above submissions made by COPT, modified operational hours estimated at 2651.9 hours per pay loaders for handling food grain and 2640.5 hours for handling cement is considered. It has to be borne in mind that if the fuel cost for pay loader is estimated for 4000 working hours per pay loader to comply with the norms prescribed in the upfront tariff guidelines, then cost higher than the level envisaged for operational period will get inbuilt in the tariff which is not found desirable. In view of the above position, and recognising that the deviation in the number of working hours at 4000 prescribed in the guidelines arises in view of the peculiarity of this project, the deviation in the number of working hours from the guideline provision is allowed in this case and the fuel cost for pay loader for handling food grain and cement bagging plant is allowed for estimated operational period in line with the approach adopted by the COPT.

As a measure of abundant precaution, it is clarified that this should not be quoted as a precedence by any other Major Port Trust for considering number of working hours lower than the norms prescribed in the 2008 guidelines.

- (x). The unit rate of fuel is updated to the rate prevailing at the time of finalization of this case at ₹57.63 per litre as against ₹56.40 considered by the COPT.
- (xi). The COPT has stated that mobile hopper proposed for receiving food grains through HMC to dumpers to avoid spillage will be operated manually and this equipment will not require power or fuel for operation. Hence, no fuel cost is estimated for this equipment. The position reported by the COPT is relied upon.
- (b). The COPT has estimated repairs and maintenance cost at 1% on the civil assets and 5% on the mechanical and electrical equipment, insurance at 1% of the gross value of fixed assets and other expenses at 5% of the gross value of fixed assets which are found to be as per the norms prescribed in the guidelines.
- (c). The COPT has computed depreciation on civil assets including berth @ 3.34% and on mechanical assets @ 10.34% as per the Companies Act, 1956 and according to the norms prescribed in the guidelines which is considered except for modification in the depreciation rate of mechanical assets.

The provisions as per the Companies Act, 2013 suggest that the useful life of heavy lift equipments be considered as 20 years. This translates to a depreciation rate of 5% per annum and as per the Act, the depreciation rate for three shift operation will be 10%. Depreciation on mechanical assets is therefore computed @ 10% on the estimated capital cost of equipment as per the rates prescribed in the Companies Act, 2013 in line with approach followed in the recent Reference Tariff Order of CHPT for supply of HMC and other equipment.

- (d). (i). The COPT has calculated license fee for the total 7.15 hectares of area proposed to be allotted under this project. The COPT has estimated license fee cargo-wise for area earmarked for parking cars at 1.5 Hectares (H), cement silos-1.65 hectares and for food grains-1.4 hectares and 2.6 hectares of common area. The common area is further apportioned cargo-wise based on the ratio of berth days for estimation of license fee. After apportionment of common area, the license fee estimated for 1.823H for parking cars, 2.6882H for cement, 1.736H for food grains and 0.9027H to timber and other cargo aggregating to 7.15H. The port has confirmed that the proposed allotment of land for the Q1-Q3 Project is in line with the Land Use Plan of Cochin Port.

The guidelines for upfront tariff stipulate that license fee for port land is to be estimated based on the rates prescribed in the Scale of Rates of the respective Major Port Trusts. The COPT has stated that License fee on land area has been estimated by the port at the rate of ₹28.13 lakh per hectare/ month reportedly on the base rate of ₹26,67,600 per hectare per annum effective from July 2010 as per the existing Scale of Rates of COPT and after taking into account the applicable escalation factor of 2%. Applying 2% annual escalation on the base license fee of ₹26.676 lakh per hectare/ annum effective from July 2010, the license fee comes to ₹28.308 lakh per hectare/ annum instead of ₹28.13 lakh per hectare/ annum considered by the COPT. The license fee is, therefore, modified applying the unit rate of ₹28.308 lakhs per hectare per annum.

- (ii). In the revised reference tariff calculation, the COPT has included the estimation of license fee for the water area which was not there in the earlier revised proposal dated 8 November 2013. The COPT has stated that water area considered is 3 H and license fee is estimated @ ₹0.1 lakh/ H/ annum. The COPT has forwarded a copy of the said letter of the MOST in support of its estimation. The total license fee on water area of 3 H is estimated at ₹0.30 lakhs and is apportioned between cargo items on the ratio of berth occupancy.

It is relevant here to mention that as per the land policy guidelines for Major Ports effective from 13 January 2011 as communicated by the Ministry of Shipping to all the Major Port Trusts and to this Authority vide its letter dated 4 March 2011, the license fee for water area is to be 50% of the license fee for abutting land. The port has, however, clarified that ₹1 per sq. mtr is considered based on the letter No.PT-17011/55/87-PT dated 15 February 2000 issued by Govt. of India, in the then Ministry of Surface Transport Department of Shipping (Ports Wing), COPT to collect License Fee for water area also @ of ₹1 per Sq Mtr/annum from the Port user. The port has confirmed that this fee is collected as a nominal fee for water area. The license fee estimated by the COPT at ₹1 per sq.mtr. is not found to be strictly in compliance with the land policy guidelines of March 2011. However, in view of specific clarification from the COPT that the port collects license fee on water as a nominal fee of ₹1 per sq. mtr./ annum based on the then (MOST) letter dated 15 February 2000, the license fee for water area is considered at the level estimated by the COPT.

- (e). The IMC has stated that while estimating the operating expenses of all commodities, deployment of operating staff is not considered which is part and parcel of basic stevedoring. The IMC has contended that this is a direct cost element relating to commodity handling and not a general cost element.

In this context, the COPT has clarified that 5% of the gross fixed asset value has been considered in the operating cost under the head 'other expenses'. 'Other expenses' consist of salaries and wages of maintenance staff including welfare and other staff related expenses. Therefore, estimation of cost towards operating staff separately would result in duplication.

As rightly stated by the COPT, the 2008 guidelines prescribes norm of 5% of the capital cost for estimation of other expenses which covers salaries of operating and maintenance staff cost, management and administration staff and other costs. Hence, considering this cost items separately will amount to duplication of cost as rightly stated by the COPT.

However, as regards car handling, this Authority while determining upfront tariff Order for CHPT for development of Ro-Ro cum multi-purpose berth in Order No.TAMP/26/2012-CHPT dated 17 August 2012 has observed that the norm of 5% of capital cost prescribed in the guidelines is towards salaries and wages and overheads. This Authority has recognised that in the case of a RoRo terminal, there is no equipment used for loading / unloading operations. The stevedoring expenses on account of manpower deployment form significant proportion of operating cost for RoRo vessels and hence this Authority found justification in considering the stevedoring expenses separately in the case of car handling through RoRo vessels in addition to 5% of the gross fixed assets towards other expenses. In the

case of CHPT, this Authority has allowed stevedoring cost at ₹155 per car for the optimal capacity of car as rightly pointed out by the IMC Limited. Following the approach adopted in the CHPT Order, it is not unreasonable to consider stevedoring cost to cover the operating cost of staff for cars at ₹155 per car for optimal capacity of cars assessed at 95,813. Accordingly, operating cost estimated in our analysis includes ₹148.51 lakhs per annum towards stevedoring cost to cover the operating cost of staff for handling cars. For all the other cargo items as stated earlier, norms prescribed in 2008 guidelines for estimation of "Other cost" at 5% of the capital cost covers the operating and maintenance staff cost, management and administration staff cost, etc.

- (f). Subject to the above modifications, the total estimated operating cost, Return on capital employed estimated vis-à-vis estimates of the COPT is as tabulated in the subsequent paragraphs relating to the estimated annual revenue requirement.

- (g). The guidelines require the operating cost for berthing service to be estimated at 1% of the berth cost.

The COPT has estimated insurance @ 1% and depreciation @ 3.34% on the capital cost relating to construction of berth while estimating the annual revenue requirement of berthing service, apart from the prescribed norm of 1% towards maintenance.

Although the guidelines restrict the operating cost at 1% of the berth cost, the asset requires adequate insurance coverage and the fact that the value of the asset will depreciate due to wear and tear can also not be denied. While fixing upfront berth hire for the coal, iron ore & multipurpose cargo berth terminals at various ports, this position was recognised by this Authority and the cost of insurance and depreciation were considered to assess the annual revenue requirement from berthing service.

In view of the position explained above, the element of insurance cost and depreciation cost are considered in this case also while estimating the operating cost for assessment of the revenue requirement from berth hire service.

- (h). The COPT has, however, estimated annual maintenance dredging cost at ₹45.20 lakhs per annum in the operating cost. The IMC has contended that the cost of maintenance dredging is not practicable and the same should be in the scope of the Port. In this context, it is relevant to mention that as per 2008 guidelines, capital cost includes cost towards construction of berth and capital cost of dredging if carried out alongside the berth in determination of upfront berth hire. The guidelines prescribe 1% of the capital cost of berth construction cost and capital dredging cost alongside the berth towards maintenance cost. In short, guidelines of 2008 allows maintenance dredging cost in determination of upfront berth hire. Hence, the contention of the IMC that maintenance dredging cost is not practicable and should be in the scope of the port is not found to be in line with the provision in the 2008 guidelines.

As stated earlier, the COPT has not estimated capital cost of dredging alongside the berth as it does not envisage this cost. Hence maintenance dredging cost applying the norm of 1% prescribed in the guidelines for estimating maintenance cost comes to nil. The COPT has, however, estimated annual maintenance dredging cost at ₹45.20 lakhs per annum in the operating cost. The port has clarified that based on the past

performance details of the port channels, the average depth of annual siltation assessed is 3.0 m. Therefore, there would be a need to carry out annual maintenance dredging regularly. The estimated annual maintenance dredging quantity is estimated at 64,500 Cu.m and applying the rate of ₹70.00 per Cu.m. the COPT has estimated annual maintenance dredging cost at ₹45.15 lakhs. The port has furnished working of per unit dredging cost at ₹73.20 per Cu.m based on the rate quoted by Dredging Corporation of India (DCI) and has stated that over and above the normal dredging cost 10% fuel escalation cost is also involved.

The COPT has subsequently revised the maintenance dredging cost maintaining the base unit rate at ₹70 per tonne and has applied 10% towards fuel escalation. The revised maintenance dredging cost estimated by COPT is ₹49.70 lakhs.

It is relevant here to mention that the COPT had recently filed another proposal for review of the wharfage rate for POL which was mainly to recover high maintenance dredging cost from the POL cargo. In that proposal, the COPT has submitted that most other ports in India have a hard rocky bottom where once the capital dredging is completed, there is almost no much siltation to deal with. But, Cochin Port has a muddy bottom and due to high siltation at its port, the maintenance dredging cost of COPT is high and is reported to be second highest next to Kolkatta Port Trust (KOPT). The COPT had also made a mention in that proposal that whilst major part of maintenance dredging cost of the KOPT is funded by the Government, such relief is not available to the COPT. In view of the above position brought out by the COPT while processing that case vide Order No.TAMP/41/2013-COPT dated 15 November 2013, there is justification in the demand made by the COPT to capture the estimated maintenance dredging cost in the operating cost while determining the Reference Tariff for the project. For this purpose, the quantum of silt to be dredged estimated by COPT at 64,500 cu. mt is relied upon and accepted. If the maintenance dredging cost is estimated applying the unit rate of ₹73.20 per cu.mtr. as indicated by the COPT based on the rate contract by COPT with the DCI for the year 2012-13, the maintenance dredging cost comes to ₹47.21 crores. The port has applied 10% fuel escalation which is moderated and considered at 7% at the level of annual escalation allowed in the estimation of operating cost by this Authority for the cases decided in the year 2013-14 under 2005 guidelines. The maintenance dredging cost comes to ₹50.52 lakhs per annum. The modified estimate of maintenance dredging cost at ₹50.52 lakhs is considered as against ₹49.70 lakhs estimated by the COPT.

- (i). Based on the above analysis, the total operating cost considered under berthing activity works out to ₹509.43 lakhs as against ₹508.61 lakhs estimated by COPT.
- (x). The cost statements for fixing reference tariff furnished by the COPT have been modified in line with the above analysis. A copy of the statement along with the calculation of berth hire is attached as **Annex - I**. The cargo-wise estimated revenue requirement and determination of upfront tariff caps cargo handling services and berth hire services are discussed below:
 - (a). Subject to the modifications explained in the above analysis, the total operating cost, Return on capital employed and the annual revenue requirement estimated for determination of reference tariff caps for cargo

handling services vis-à-vis estimates of the COPT is tabulated below, for ease of cross reference to the analysis that follows the table:

As estimated by the COPT

(₹ in lakhs)

Particulars	Total	Cars	Cement total	Cement Ship to silo	Cement Packaging and forwarding	Food Grains	Timber + other Cargo Total	Timber	Other cargo
Operating Costs	3282.9	169.6	1837.0	87.7	1749.3	568.0	708.3	556.6	151.7
Return on capital employed @16%	2637.3	123.7	1545.7	107.9	1437.9	507.7	460.0	353.4	106.6
Total Annual Revenue Requirement (ARR)	5920.1	293.3	3382.8	195.7	3187.1	1075.7	1168.3	910.0	258.3

Modified estimates considered in the analysis

(₹ in lakhs)

Particulars	Total	Cars	Cement total	Cement Ship to silo	Cement Packaging and forwarding	Food Grains	Timber + other Cargo Total	Timber	Other cargo
Operating Costs	3480.41	318.26	1831.90	87.68	1744.24	583.41	746.85	593.04	153.80
Return on capital employed @16%	2603.66	123.74	1545.79	107.95	1437.84	480.75	453.38	353.40	106.60
Total Annual Revenue Requirement (ARR)	6084.08	442.00	3377.68	195.63	3182.10	1064.16	1200.22	946.45	260.41

(b). Car handling activities:

- (i). As per the statement and summary position tabulated above, the total revenue requirement from car handling service works out to ₹442.00 lakhs as against ₹293.3 lakhs estimated by COPT.
- (ii). The guidelines for multipurpose berth specify 90% of the total revenue requirement to be apportioned to handling charge, 5% each towards storage charge and miscellaneous charges.

The COPT has, however, proposed to apportion 99% of the revenue requirement from car handling services towards composite handling charge and 1% towards storage charge. The proposal of revenue requirement apportionment by the COPT is found to be in line with the revenue requirement apportioned by this Authority in the upfront tariff fixed in the CHPT for RORO vessel.

In view of the position explained above, the apportionment of the total revenue requirement between handling charge and storage charges at 99% and 1% respectively is allowed as estimated by the COPT. Based on the revised revenue requirement estimated, the revenue apportioned to handling charge and storage charges works out to ₹437.58 lakhs and ₹4.42 respectively.

- (iii). Clause 3.8.2 of the guidelines states that the tariff cap for different individual services is to be set appropriately in such a way as to achieve the annual revenue requirement. The COPT has estimated the share of coastal car handling at 95% and foreign at 5%. As per the Government policy on coastal concession the rate for handling coastal cars is to be 60% of the foreign rate. Based on the estimated revenue requirement, optimal capacity of cars,

share of foreign and coastal car at 5 : 95 as furnished by COPT and after capturing the revenue impact of coastal concession, the composite handling rate for cars works out to ₹441.97 per coastal car as against ₹439.96 per car proposed by the port and ₹736.62 per foreign car as against ₹733.41 per foreign car proposed by the port.

It is relevant here to state that the handling rate for car approved appears to be higher than the level proposed by the COPT despite improving the optimal capacity of car from 63,875 proposed by COPT to 95,873 considered in this analysis because handling rate approved reckons with the stevedoring element at ₹155 per car for reasons explained in the preceding paragraphs which has not been estimated by the COPT in its proposal.

- (iv). As per the upfront tariff guidelines, storage charge for multipurpose terminal is leviable for storage of cargoes at the transit area beyond the allowable free period of 5 days for import cargo and 15 days for export cargo. The COPT has proposed a free period of 5 days for cars. In the CHPT upfront tariff Order, the free period for car was allowed at 3 days as proposed by the CHPT. The COPT has stated that the free period of 5 days is considered as per the 2008 guidelines for the multipurpose terminal for imported cargo. The 2008 guidelines do not prescribe any specific norm for cars. The free period for cars as proposed by the COPT is considered as proposed by the COPT.

The COPT has assumed that 5% of the optimal capacity would attract storage charges. As per the estimates of COPT, out of the said 5% of the optimal capacity, 80% would attract storage charges under the first slab of 5 days beyond free period and 10% each would spill over to the next two slabs of 6 to 10 days and beyond 10 days after free period respectively. The COPT has furnished average stay of car at 2.5 days, 7.5 days and 12.5 days respectively in each of the three slabs and has arrived at the slab wise rate. The COPT has proposed storage charges for second and third slabs at 1.5 times and 2 times respectively of the storage charge for first slab, which is maintained in our calculation. The COPT has furnished workings for computation of storage charges and has shown that the revenue requirement from the storage charges would be met by the operator at the storage charges proposed by the port. The same approach as followed by the COPT is considered. The modified storage charges works out to ₹16.40 per car per day for the first slab of 5 days beyond free period and ₹24.60 and ₹32.80 for the next two slabs respectively as against ₹16.3, ₹24.5 and ₹32.7 per car per day considered by COPT for the corresponding three slabs.

- (v). For the reasons explained in an earlier paragraph, miscellaneous charges is not prescribed separately for cars. The composite handling charge would cover all incidental and miscellaneous services related to car handling.

(c). Cement handling activity:

- (i). As brought out earlier, of the 10.28 lakh Tonnes optimal capacity assessed for cement, 5 lakh tonnes of the optimal capacity of cement will be directly pumped from ship to the storage area outside the project and hence will not use the bagging and forwarding facility envisaged. It is in this context, as stated earlier,

the port has segregated the capital cost, operating cost and the revenue requirement into two separate activities i.e. transfer from ship to silo and cement packing and forwarding.

- (ii). The total revenue requirement for cement handling service works out to ₹3377.68 lakhs as against ₹3382.8 lakhs estimated by COPT. Of this, the revenue requirement from transfer from ship to silo is estimated at ₹195.63 and for cement packaging and forwarding it is estimated at ₹3182.10 lakhs as against ₹195.7 lakhs and ₹3187.1 lakhs estimated by the COPT for the corresponding activities.
- (iii). The entire revenue requirement estimated for transfer of cement from ship to silo is spread over the optimal capacity of cement to derive the handling rate as this revenue is purely to recover the revenue to meet handling from ship to shore. The port has stated that the share of coastal cargo will be 95% and 5% will be foreign cargo. Based on the revised revenue requirement estimated at ₹195.63 lakhs, the handling rate for overall optimal capacity of cement assessed at 10.28 lakh tonnes comes to ₹30.69 per tonne for foreign cargo and ₹18.41 per tonne for coastal cargo as against ₹30.74 per tonne foreign cargo and ₹18.44 per tonne for coastal cargo proposed by the COPT
- (iv). With reference to the revenue requirement estimated for cement packaging and forwarding, in the original proposal the COPT had apportioned 90% of the estimated revenue requirement to cargo handling charge and 5% each towards storage and miscellaneous charge. In the revised proposal dated 15 October 2013, the COPT has submitted that in case of cement, environmental concerns and related cleaning, for which miscellaneous charges are levied are generally confined to the silos due to the cargo being pumped under mechanized system as in the case of Oil with little room for spillages. Therefore, the apportionment of the total revenue requirement is proposed between handling charge and storage charges at 95% and 5% respectively. As per the TAMP guidelines 90% of this should be taken for cargo handling and 5% each towards storage and miscellaneous charges. However in this case since no miscellaneous service is envisaged, the COPT has clubbed 5% norm relating to the miscellaneous charge in the handling charges and proposed apportionment at 95% and 5% between packaging & forwarding and storage charges respectively. In view of the position explained by the COPT, the ratio of revenue requirement proposed by the port is relied upon and accepted.

Based on the revised revenue requirement estimated at ₹3182.10 lakhs for the activity packaging and forwarding, the revenue apportioned to composite packaging and forwarding charge is at ₹3022.99 lakhs and at ₹159.10 lakhs towards storage charges respectively.

- (v). The upfront tariff caps for cement packaging and forwarding are determined so as to meet the revenue requirement by spreading over the optimal capacity of cement estimated of 5.281 lakh tonnes availing packaging and forwarding facility.

The COPT has furnished the share of coastal cargo at 95% and foreign cargo at 5%. It is seen that the COPT has considered the revenue impact of allowing concession to coastal cargo at 60% of

the rate proposed for foreign cargo for packaging and forwarding charges and has proposed rate of 921.85 per tonne for foreign cargo and ₹553 per tonne for coastal cargo.

It is relevant here to mention that a per Order No.TAMP/4/2004-Genl. dated 7 January 2005 notifying the policy direction issued by the then Ministry of Shipping, Road Transport and Highways vide its letter no.PR-14019/29/2001-PG dated 1 January 2005 concession in cargo related charges is applicable on relevant handling charges for ship-shore transfer and transfer from/to quay to/from storage yard including wharfage. Thus, the policy direction issued by the MOS does not envisage coastal concession in respect of packaging and forwarding charges. That being so, a uniform rate of ₹572.43 per tonne is prescribed for both foreign and coastal cargo to meet the revised estimated revenue requirement of ₹3022.99 lakhs apportioned towards packaging and forwarding charges.

- (vi). As stated earlier, as per the upfront tariff guidelines, storage charge for multipurpose terminal is leviable for storage of cargoes at the transit area beyond the allowable free period of 5 days for import cargo and 15 days for export cargo. The COPT has proposed a free period of 7 days for both import cargo and export cargo reportedly based on the position prevailing at the COPT. Relying upon the position reported by COPT, the free period of 7 days as proposed by the COPT is considered.

The COPT has assumed that 20% of the optimal capacity of cement availing packaging and forwarding facility will attract storage charges. As per the estimates of COPT, out of the said 20% of the optimal capacity, 80% would attract storage charges under the first slab of 7 days beyond free period and 10% each would spill over to the next two slabs of 8 to 14 days and beyond 14 days after free period respectively. The COPT has furnished average stay of cargo at 3.5 days, 10.5 days and 17.5 days respectively in each of the three slabs and has arrived at the slab wise rate. The COPT has proposed storage charges for second and third slabs at 1.5 times and 2 times respectively of the storage charge for first slab, which is maintained in our calculation. The COPT has furnished workings for computation of storage charges and has shown that the revenue requirement from the storage charges would be met by the operator at the storage charges proposed by the port. The same approach as followed by the COPT is considered. The modified storage charges works out to ₹19.13 per tonne per day for the first slab of 7days beyond free period and ₹28.70 and ₹38.26 for the next two slabs respectively as against ₹20.34, ₹30.51 and ₹40.68 per tonne per day considered by COPT for the corresponding three slabs.

- (vii). For the reasons explained in an earlier paragraph, miscellaneous charges is not prescribed separately for cement. The composite handling charge would cover all incidental and miscellaneous services related to cement handling.

(d). Food grain handling activity:

- (i). The total revenue requirement from food grain handling service works out to ₹1064.16 lakhs as against ₹1075.7 lakhs estimated by COPT.

- (ii). The guidelines for multipurpose berth specify 90% of the total revenue requirement to be apportioned to handling charge, 5% each towards storage charge and miscellaneous charges in line with the norms prescribed in the tariff guidelines.

Accordingly, the apportionment of the total revenue requirement is ₹957.74 lakhs handling charge and ₹53.21 lakhs each towards storage charges and miscellaneous charge respectively.

- (iii). The COPT has estimated the share of coastal handling of food grains at 95% and foreign at 5%. As per the Government policy on coastal concession the rate for handling coastal cargo is to be 60% of the foreign rate. Based on the estimated throughput of food grains, share of foreign and coastal food grain along with the revenue impact of coastal concession thereof and the estimated revenue requirement from handling services, the composite handling rate for food grain works out to ₹329.12 per tonne for food grain (foreign) as against ₹332.77 per tonne proposed by the port for the counterpart and ₹197.47 per tonne for food grain (coastal) as against ₹199.62 per tonne proposed by the port.

- (iv). As per the upfront tariff guidelines, storage charge for multipurpose terminal is leviable for storage of cargoes at the transit area beyond the allowable free period of 5 days for import cargo and 15 days for export cargo. The COPT has proposed a free period of 7 days for both import cargo and export cargo reportedly based on the position prevailing at the COPT. Relying upon the position reported by COPT, the free period of 7 days as proposed by the COPT is considered.

The COPT has assumed that 75% of the optimal capacity would attract storage charges. As per the estimates of COPT, out of the said 75% of the optimal capacity, 33.33% would attract storage charges under the first slab of 7 days beyond free period and 33.33% each would spill over to the next two slabs of 8 to 14 days and beyond 14 days after free period respectively. The COPT has furnished average stay of cargo at 3.5 days, 10.5 days and 17.5 days respectively in each of the three slabs and has arrived at the slab wise rate. The COPT has proposed storage charges for second and third slabs at 1.5 times and 2 times respectively of the storage charge for first slab, which is maintained in our calculation. The COPT has furnished workings for computation of storage charges and has shown that the revenue requirement from the storage charges would be met by the operator at the storage charges proposed by the port. The same approach as followed by the COPT is considered. The modified storage charges works out to ₹0.88 per tonne per day for the first slab of 7 days beyond free period and ₹1.32 and ₹1.76 per tonne per day for the next two slabs respectively as against ₹0.85, ₹1.28 and ₹1.70 per tonne per day considered by COPT for the corresponding three slabs.

- (v). Based on the modified revenue requirement, tariff cap for miscellaneous charge for food grain works out to ₹11.33 per tonne as against ₹11.46 per tonne proposed by COPT. The COPT has stated that the services for levy of miscellaneous charges for food grains will include environment and management, sweeping of cargo on the wharf, safety and security measures etc. The relevant conditionalities prescribed by COPT in the proposed SOR is approved as they are similar to the prescription made in the upfront tariff Order at the other Major Port Trusts.

(e). Timber and Other cargo (viz. Bagged cement, bagged construction material and bagged food grain) handling activity:

- (i). The total revenue requirement from timber handling service works out to ₹946.45 lakhs as against ₹910.0 lakhs estimated by COPT. The total revenue requirement from other cargo works out to ₹260.41 lakhs as against ₹258.33 lakhs estimated by COPT.
- (ii). The guidelines for multipurpose berth specify 90% of the total revenue requirement to be apportioned to handling charge, 5% each towards storage charge and miscellaneous charges. The port in its original proposal of September 2013 and the subsequent revised proposal dated 15 October 2013 had proposed apportionment of revenue requirement as per the norms prescribed in the guidelines for multipurpose cargo terminal. However, in the revised proposal dated 8 November 2013 and the final revised proposal dated 2 December 2013, the COPT has proposed to apportion 95% of the estimated revenue requirement to handling charge and 5% towards miscellaneous charge in respect of this cargo category.

The port has submitted that storage of Timber Logs and Other Cargo other than Timber Logs is not envisaged inside the Terminal for the Q1-Q3 Project. Timber logs and other cargo on landing will be shifted to the stack yard outside the project area. In case of timber where incidental storage at the project area for shore handling operation will be required will be covered with in the Free Period, and therefore, storage charges are not proposed for Timber Logs.

For other cargo, their total capacity is 0.82 Lakh TPA being 25% of the total optimal capacity of timber and other cargo which is rather insignificant, hence the port does not envisage to provide dedicated storage facilities. These cargo will be directly fed / cleared to / from the ship side. The COPT has confirmed that timber and other bagged cargo are expected to avail storage, if required, outside the project area. The Cochin Port has stated that port godowns outside the project area, can be rented out for such cargo. Therefore, storage charge is not proposed for such cargo. Thus, only Handling and Miscellaneous Charges are proposed for Timber Logs and other cargo. In view of the reason explained by the COPT for not proposing storage charge the apportionment of revenue requirement by COPT at 95% towards handling charge and 5% towards miscellaneous charge.

Accordingly, the apportionment of the total revised revenue requirement for timber is ₹899.12 lakhs handling charge and ₹47.32 lakhs towards storage charges as against revenue requirement apportioned by COPT at ₹864.5 lakhs towards handling charge and ₹45.50 lakhs towards storage charges.

The apportionment of the total revised revenue requirement for other cargo is ₹247.38 lakhs towards handling charge and ₹13.02 lakhs towards storage charges as against revenue requirement apportioned by COPT at ₹245.4 lakhs towards handling charge and ₹12.9 lakhs towards storage charges

- (iii). The COPT has estimated the share of coastal handling of timber at 5% and foreign at 95%. With reference to other cargo, the share of coastal and foreign is assumed by the COPT at 25% and 75% respectively.

As per the Government policy on coastal concession the rate for handling coastal cars is to be 60% of the foreign rate. Based on the estimated throughput of food grains, share of foreign and coastal food grain along with the revenue impact of coastal concession thereof and the estimated revenue requirement from handling services, the composite handling rate for timber works out to ₹273.67 per tonne for timber (foreign) as against ₹262.71 per tonne proposed by the port for the counterpart and ₹164.20 per tonne for timber (coastal) as against ₹157.59 per tonne proposed by the port.

Likewise, the composite handling rate for other cargo works out to ₹245.97 per tonne for other cargo (foreign) as against ₹243.98 per tonne proposed by the port for the counterpart and ₹147.58 per tonne for timber (coastal) as against ₹146.36 per tonne proposed by the port.

The COPT has also suitably modified the note governing the proposed rates to state that the tariff for other cargo (bagged construction material, bagged cement and bagged food grain) will cover loading/ unloading of the cargo from the ship and for direct feeding/ delivery. The port has clarified by way of note that in case of other cargo, there is no storage facility provided and the cargo will directly be unloaded from the vessel to truck for movement.

In case of timber, the proposed rate is stated to cover loading/ unloading of the cargo from the ship and shore handling for movement to the stack yard outside the project area.

The notes proposed by the COPT regarding handling charge of timber and other cargo is suitably modified to state that it shall cover charges for all miscellaneous services not specifically prescribe in the Scale of Rates.

- (iv). Based on the modified revenue requirement, tariff cap for miscellaneous charge for timber and other cargo works out to ₹14.12 per tonne and ₹11.65 per tonne respectively as against ₹13.57 per tonne and ₹11.56 per tonne proposed by COPT for the corresponding cargo. The COPT has stated that the services for levy of miscellaneous charges will include environment and management, sweeping of cargo on the wharf, safety and security measures etc. The relevant conditionalities prescribed by COPT in the proposed SOR is approved as they are similar to the prescription made in the upfront tariff Order at the other Major Port Trusts.

(f). Berth hire services:

- (i). The revenue requirement from berthing service works out to ₹1896.76 lakhs (comprising ₹1387.3 lakhs being 16% return on a capital cost and operating cost of ₹509.43 lakhs) as against ₹1895.9 lakhs estimated by the COPT.
- (ii). The COPT has proposed concessional berth hire charges for coastal vessels as per the Government policy, assuming the share of GRT of coastal vessels and foreign vessels for each

cargo category. The port has assumed share of coastal and foreign to be 95: 5 in respect of car, cement, food grains and for timber and other cargo the port has assumed the share of coastal and foreign vessel in the ratio of 25: 75 which is relied upon and considered.

- (iii). The COPT has furnished detailed workings for computation of berth hire charges. The methodology followed by the COPT for arriving at the berth hire charge is found to be in line with the general approach followed by this Authority in other upfront tariff cases. The calculation of berth hire charge is done following the approach followed by the COPT except for modification in the GRT of the vessel of cars. The COPT has assumed GRT of car at 11000 with a parcel size of 1000 cars day. For reasons explained in the earlier paragraph, the handling rate is improved to 1500 cars per day. Hence the GRT of the vessel also needs to be suitably modified. The COPT has confirmed that 15000 GRT vessel can carry parcel size of 1500 cars and has also confirmed that the proposed draft of 9.14 mtrs for the project is adequate for 15000 GRT vessel to call. That being so, the GRT of vessel carrying car is modified to 15000 GRT.
- (iv). Subject to the above modification, the modified tariff cap for Berth hire charge works out to ₹1.86 per GRT per hour for foreign vessel and ₹1.12 per GRT per hour for coastal vessels, which is prescribed as against ₹1.93 per GRT per hour for foreign vessels and ₹1.16 per GRT per hour for coastal vessels proposed by COPT.
- (v). Normally vessel related charges for foreign going vessels are denominated in US dollar terms by converting the rupee value to dollar terms by applying the exchange rate prevailing at the time of notification of the relevant tariff order. This Authority while finalizing the upfront berth hire at various ports has held that prescribing dollar denominated berth hire is not appropriate in the upfront tariff cases which will have a validity of 30 years. It was then decided that applying a WPI based escalation on a foreign currency is not correct as the foreign exchange variation over the next 30 years cannot be predicted and in case of any abnormal variations, either the users or the operator will have to bear the incidence, depending on which side the appreciation takes place. Therefore, it has been decided by this Authority to approve the upfront berth hire charge in Rupee term only.
- (xi). The Cochin Steamer Agents Association (CSAA) has pointed out that the proposed berth hire is almost 500% higher than the berth hire prescribed in the existing Scale of Rates of the COPT.

Further, the CSAA has requested that the port may propose a suitable note allowing the option of collection of berth hire from Shipping Lines or from receiver of cargo. With reference to the first point, as rightly stated by COPT, the berth hire prescribed in the Scale of Rates of COPT is arrived following the cost plus model under 2005 guidelines. Whereas, the Reference Tariff determined under 2008 guidelines is following norms prescribed in the guidelines with reference to optimal capacity of the facility. With reference to the point made by CSAA about prescribing two options for collection of berth hire charges. The COPT has clarified that the berth hire charges is ultimately borne by the cargo interests and the Steamer Agents are fully reimbursed of the cost from the consignee. It has also stated that the cargo expected at the terminal will be mostly captive cargo wherein it will have one consignee only. The cost of berth hire, handling charges

and storage charges will be borne by a single consignee only. The COPT has stated that the suggestion of CSAA may not result in any drastic change on the overall transport of logistic cost of the consignee and hence COPT doesn't warrant introduction of any special note in the tariff proposal.

- (xii). The IMC Limited has contended that the 2008 Guidelines do not give any weightage to financing cost, royalty element etc., and hence the actual return to the operator is much less than the allowable return of 16%. The IMC Limited has opined that considering this the 2013 Guidelines is more preferable. IMC Ltd has, however, stated that to secure the interest of the operator, the BOT operator may be provided with an option to apply for tariff revision, as and when COPT or any other Major Port Trusts are provided with tariff for the relevant commodity that may be used as Reference Tariff. The said request made by the IMC Limited to apply for tariff revision when COPT or any Major Port Trusts are provided with the tariff for relevant commodity is not in line with the provisions in the revised tariff guidelines of 2013. As per revised tariff Guidelines of 2013, the BOT operator will continue to apply tariff within the ceiling level of Reference Tariff approved by this Authority for the entire concession period subject to automatic indexation at 60% of the WPI from the second year of commencement of commercial operation as per clause 2.9 of the Tariff Guidelines of 2013. The BOT operator, however, has the option to seek Performance linked tariff increase within a cap of 15% over the indexed Reference Tariff on achievement of Performance Standard prescribed in the Concession Agreement from year to year from second year onwards.
- (xiii). IMC Limited has stated that the proposed storage charges are inordinately high and unrealistic and has stated that there is anomaly in the basis of calculation. They have also mentioned that the actual revenue to be collected at the proposed rate is substantially higher than the expected realization above the free period. However, the storage revenue shown by the IMC Limited in its letter dated 12 October 2013 is not supported with any analysis supported by detailed calculation. It is seen that the COPT has furnished detailed working of arriving at the proposed storage charges and has also estimated the revenue at the proposed storage charges for each cargo items duly matching it with the estimated revenue requirement from storage charges. There does not seem to be any anomaly as such in the approach followed by the COPT for arriving at the proposed storage. It is seen that the approach followed by the COPT in arriving at the proposed storage charges slab wise is in line with the general approach followed in arriving at the storage charge in the other upfront tariff Orders. All parameters assumed by the COPT as regards percentage of cargo capacity likely to avail storage facility, average stayal of cargo beyond the free period in each slab for each cargo category considered by the port is relied upon and the storage charge is revised on account of modification in the estimation of revenue requirement estimation from storage charge as already explained in the preceding paragraphs.
- (xiv). One of the users, ACL in their comments has also submitted that as per the MOU agreed by it with the COPT, it has to pay wharfage charges and berth hire charges, pilotage, port dues etc., as per the scale of Rates of the port which is in force from time to time. Their concern is that they should not be charged higher than the general tariff and be put in a disadvantage position compared to any other company handling cement cargo at COPT owned berths.

The COPT in this regard has clarified that the Q-1 berth is currently in dilapidated condition and cannot take the weight of a crane. It may not last long and needs to be rebuilt to ensure continued operation of M/s.Ambuja Cements Ltd. Since the Q1 berth presently is very old and dilapidated, ACL cannot not provide delivery pipelines underneath the berth and substantial amounts are incurred by ACL for providing services of crane continuously for performing operations. When new berthing structure is available, ACL will be able to operate optimally without any of hindrance/ constraints. The COPT has stated that as the tariff arrangement is based on the PPP mode of development of the new berth, exact parity in tariff

cannot be ensured with other cement operators. The port has, however, stated that overall expenditure to the ACL will by and large remain same as envisaged in MOU. The COPT has clarified that the handling rate proposed for cement for ship to silo is ₹18.19 for coastal cargo as against the existing wharfage rate of ₹43.70 applicable as per existing SOR of COPT. Though the Berth Hire at the project area is on the higher side in comparison to the existing berth hire, it is largely offset by the reduced wharfage and if any insignificant enhance arises it should be absorbed by the ACL while they are availing service of new berthing services. It is seen that COPT has addressed the concern expressed by the ACL in this regard. As stated earlier, this Authority is not inclined to go into individual agreement entered by the port with individual users. It is for the concerned port trust to address the concern of the users while formulating its proposal.

- (xv). The port has not proposed definition of coastal vessel and foreign going vessel. The standard definition of these two terms which are also prescribed in the SOR of COPT and the upfront tariff Schedule of multiuser liquid terminal at COPT are prescribed in the Reference Tariff Schedule for Q1 to Q3 project.
- (xvi). The COPT has proposed the penal interest on delayed refund by the terminal operator or in case of delayed payment by users shall be 2% above the Prime Lending Rate of the State Bank Of India (SBI) in line with the provision in the 2005 guidelines. It has subsequently stated that the proposed note may be corrected at Base Rate of the State Bank of India since Prime Lending Rate does not exist in the State Bank of India. In this context, it is clarified that the note on penal interest is prescribed as per clause 2.18.2. of the 2005 guidelines uniformly in the Upfront tariff Schedule of all the Major Port Trusts. Hence, it is not appropriate to give a different prescription only in the case of the COPT. The prescription given uniformly in the other Major Port Trust is prescribed in the SOR.
- (xvii). The general conditions, rounding off the bill amount, minimum charge recoverable on any application at ₹100/-, no refund / claim for amount less than ₹100/-, penal interest on delayed payments, users not required to pay for delays beyond reasonable level attributable to the operator, etc. proposed by the COPT are found to be in line with the general conditions prescribed in other Major Ports/ Terminals. These conditions are prescribed as proposed by COPT subject to minor modifications to reflect the standard conditions prescribed by this Authority in the upfront tariff cases at the other Major Port Trusts like VOCPT. Standard conditions, viz. status of vessel to determine “foreign-going” or “coastal vessel”, applicability of concessional rates to coastal vessels / cargo and calculation of gross weight of cargo for billing purpose which are omitted by the COPT have also been prescribed.
- (xviii). The port had in its proposal original proposal of September 2013 and earlier revised proposal dated 15 October 2013 proposed a note stating that rates and conditions for granting ousting priority/ priority berthing will be governed by the extant government guidelines and provision prescribed in the Scale of Rates of Cochin Port. The existing SOR of the COPT does not prescribe rates and conditions for granting ousting priority/ priority berthing. When advised the port to explain the reasons for prescribing such a condition in the case of fixation of Reference tariff for the proposed project, the port instead of explaining the reasons for the proposed note has chosen to withdraw it from the proposed SOR. It is relevant here to mention that this Authority has based on the proposal of the concerned Major Port Trust prescribed the note stating that the rates conditions for granting ousting priority/ priority berthing will be governed by the extant government guidelines in the upfront tariff Orders of V.O. Chidambaranar Port Trust (VOCPT) for thermal coal handling at NCB-III, and couple of orders of VPT. Hence the condition proposed by the COPT is incorporated in the Reference Tariff Schedule stating that rates and conditions for granting of ousting priority/ priority berthing will be governed by the extant government guidelines.

- (xix). The COPT has listed out various services to be covered under the composite handling charge for each cargo category under the relevant schedule of rates, which is approved subject to slight modification in the note to include that the rate shall cover all other miscellaneous charges not specifically prescribed in the Scale of Rates. This is in line with the modification done in the other upfront tariff Order of VPT, VOCPT, etc.
- (xx). (a). As stated earlier, Clause 2.2 of the revised tariff guidelines of 2013 requires this Authority to prescribe the Reference Tariff along with the Performance Standards. Though the revised guidelines of 2013 do not require this Authority to go into the Performance Standards proposed by the port it is not unreasonable to assume that the ports would propose reasonable and achievable Performance Standard.
- (b). The COPT has proposed the Performance Standards in respect of cars, cement, food grains, other cargo in its original proposal of September 2013. Subsequently, on our advice to specify the cargo covered under other cargo the port has clarified that the other cargo includes timber, bagged parcels like cement, other construction material and food grains and has suitably modified the proposed Reference Tariff Schedule and proposed Performance Standards. In the final revised proposal of December 2013, the COPT has proposed separate rate for timber and Other cargo (other than timber) in view of addition of one equipment for handling timber. The COPT has not forwarded revised Performance Standard segregating these two cargo items. The cargo description in Performance Standard proposed by the port for other cargo is modified and proposed separately for timber and Other cargo (bagged construction material, bagged cement and bagged food grain) in line with the cargo description in the proposed Reference Tariff Schedule.

The COPT has proposed the Performance Standards of cars at 1000 cars per day, for cement at 5000 tonnes per day, food grains at 7500 tonnes per day and Other cargo at 2500 Tonnes per day.

It is relevant to mention that a letter has been addressed to the Ministry of Shipping requesting to advise all the Major Port Trusts to propose reasonable and achievable Performance Standards which should not be lower than the output (handling) rate considered in the optimal quay capacity calculation of the PPP project.

It is seen that the performance standards proposed by the COPT for all the items are at the level of handling rate considered by the port in the optimal capacity calculation for each cargo items. As explained earlier, in our analysis, the handling rate of cars has been considered at 1500 cars per day. That being so, it is appropriate to modify the Performance standard of car at 1500 cars per days at the level of handling rate considered in the optimal capacity calculation in line with the approach followed by the COPT.

17.1. As per clause 2.8. of the tariff guidelines of 2008 tariff caps notified by this Authority shall be automatically indexed every year to an extent of 60% of the variation in Wholesale Price Index (WPI) occurring between 1 January of 2008 and 1 January of the relevant year. Such automatic adjustment of tariff caps will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year. Clause 2.9. of the revised tariff guidelines of 2013 borrowing the principles of 2008 guidelines stipulates that Reference Tariff shall be automatically revised every year based on an indexation as provided in clause 2.2 of the revised tariff guidelines of 2013 i.e. 60% of the WPI for the period between 1st January of the year as prescribed in the relevant tariff order of TAMP under 2008 guidelines and 1st January of the subsequent relevant year for the entire concession period. In the instant case, the estimation of capital cost and unit rate of operating cost considered in the upfront tariff calculation are as of the year 2013. It is, therefore, found appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2013.

17.2. Subject to above, the Reference Tariff Schedule along with conditionalities governing the Reference Tariff has been modified.

17.3. The modified Reference Tariff Schedule is attached as **Annex - II** and the Performance Standards for the Multi-Purpose Terminal at Q1 to Q3 at Mattancherry Wharf at COPT as modified by us is attached as **Annex - III**.

17.4. In the result, and for the reasons given above, and based on a collective application of mind, this Authority approves the Reference Tariff Schedule for the Multi-Purpose Terminal at Q1 to Q3 at Mattancherry Wharf at COPT and notifies it alongwith the Performance Standards.

17.5. As per clause 2.5 of the Revised Tariff Guidelines 2013, the Reference Tariff and Performance Standards notified by this Authority shall be mentioned in the bid document and subsequently in the Concession Agreement in respect of PPP Projects. Accordingly, the COPT is advised to incorporate the Reference Tariff and Performance Standards, in the bid document and subsequently in the Concession Agreement in respect of PPP Projects as agreed by the port.

18.1. From the date of Commercial Operation (CoD) till 31st March of the same financial year, the tariff would be limited to the indexed Reference Tariff relevant to that year, which would be the ceiling. The aforesaid Reference Tariff shall be automatically revised every year based on an indexation as provided in para 2.2 of the tariff guidelines of 2013 which will be applicable for the entire concession period.

However, the PPP operator would be free to propose a tariff along with Performance Standards (the "Performance Linked Tariff") from the second year of operation onwards, over and above the indexed Reference Tariff for the relevant financial year, at least 90 days before the 1st April of the ensuing financial year. Such Performance Linked Tariff shall not be higher than 15% over and above the indexed Reference Tariff for that relevant financial year (and this will be the Tariff Cap). The Performance Linked Tariff would come into force from the first day of the following financial year and would be applicable for the entire financial year.

18.2. The proposal shall be submitted to this Authority along with a certificate from the independent engineer appointed under the Concession Agreement of the Project indicating the achievement of Performance Standards in the previous 12 months as incorporated in the Concession Agreement or for the actual number of months of operation in the first year of operation, as the case may be.

18.3. On receipt of the proposal, this Authority will seek the views of the Major Port Trust on the achievement of Performance Standards as outlined in para 5 of the tariff guidelines of 2013, within 7 days of receipt.

18.4. In the event of Operator not achieving the Performance Standards as incorporated in the Concession Agreement in previous 12 months, this Authority will not consider the proposal for notifying the Performance Linked Tariff for the ensuing financial year and the Operator shall be entitled to only the indexed Reference Tariff applicable for the ensuing financial year.

18.5. After considering the views of the Major Port Trust, if this Authority is satisfied that the Performance Standards as incorporated in the Concession Agreement have been achieved, it shall notify the performance linked tariff by 15th of March to be effective from 1st of April of the ensuing financial year.

18.6. While considering the proposal for Performance Linked Tariff, this Authority will look into the Performance Standards and its adherence by the Operator. This Authority will decide on the acceptance or rejection of the Performance Linked Tariff proposal based on the achievement or otherwise of the Performance Standards by the operator. Determination of indexed Reference Tariff and Performance Linked Tariff will follow the illustration shown in the Appendix attached to the tariff guidelines of 2013.

18.7. From the third year of operation, the Performance Linked Tariff proposal from the PPP operator shall be automatically notified by this Authority subject to the achievement of Performance Standards in the previous 12 months period as certified by the Independent Engineer. The PPP operator, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and this Authority shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.

18.8. In the event any user has any grievance regarding non-achievement by the PPP operator of the Performance Standards as notified by this Authority, he may prefer a representation to this Authority which, thereafter, shall conduct an inquiry into the representation and give its finding to the concerned Major Port Trust. The Major Port Trust will be bound to take necessary action on the findings as per the provisions of the respective Concession Agreement.

18.9. Within 15 (fifteen) days of the signing of the Concession Agreement, the concerned operator will forward the Concession Agreement to this Authority which will host it on its website.

18.10. The PPP operator shall furnish to this Authority quarterly reports on cargo traffic, ship berth day output, average turnaround time of ships, average pre-berthing waiting time as well as the tariff realized for each berth. The quarterly reports shall be submitted by the PPP operator within a month following the end of each quarter. Any other information which may be required by this Authority shall also be furnished to them from time to time.

18.11. This Authority shall publish on its website all such information received from PPP operator. However, this Authority shall consider a request from any PPP operator about not publishing certain data/ information furnished which may be commercially sensitive. Such requests should be accompanied by detailed justification regarding the commercial sensitiveness of the data/ information in question and the likely adverse impact on their revenue/ operation of upon publication. Authority's decision in this regard would be final.

(T.S. Balasubramanian)
Member (Finance)

ANNEX - I

FORMULATION OF UPFRONT TARIFF FOR HANDLING CARS AND MULTIPURPOSE CARGO AT MATTANCHERRY WHARF, COCHIN PORT

Sl. No.	Particulars	Final Revised estimates furnished by COPT vide letter dated 2 December 2013	Estimates considered by TAMP
I	Optimal capacity		
(A)	Optimal Capacity - CARS		
(i)	Optimal Quay capacity		
(a)	Cargo handled per day	1000	1500
(b)	No. of days	365	365
(c)	Utilisation factor	70%	70%
(d)	Optimal quay capacity (0.7*1000*365) in cars per annum	255500	383250
(ii)	Optimal Yard capacity of Cars		
(a)	Total ground (car) slots (G)	1000	1500
(b)	Average stack height (H)	1	1
(c)	Period in number of days (P)	365	365
(d)	Surge factor (S)	1	1
(e)	Average dwell time (D)	4	4
(f)	Optimal yard capacity at 70% utilisation (0.7*G*H*P/S*D) in cars per annum	63875	95813
(iii)	Optimal Capacity in cars per annum	63875	95813
(iv)	No. of berth days required for optimal capacity	64	64
	Optimal capacity / handling rate of cars		
(v)	Balance Berth days available at 70% utilisation (2 berths * 365 days berth*70% optimum utilization) - 64 berth days occupied by car vessel.	447	447
(B)	Optimal Quay Capacity of Multipurpose cargo		
(i).	Share of capacity of different cargo items		
	Percentage share of capacity of Cement (S1)	46%	46%
	Percentage share of capacity of Food grain (S2)	14%	14%
	Percentage share of capacity of timber & Other cargo (S3)	40%	40%
(ii).	Handling rate of Vessels		
	- Handling rate of vessels carrying Cement (P1)	5000	5000
	- Handling rate of vessels carrying Food grains (P2)	7500	7500
	- Handling rate of vessels carrying timber & other cargo (P3)	2500	2500
(iii).	Optimal Capacity of the Terminal in tonnes/ annum		
	- Cement (S1 * P1 * 439.10 days) (revised proposal - 447 days)	1028100	1028100
	- Food grains (S2 * P2 * 439.10 days) (revised proposal - 447 days)	469350	469350
	- Timber & Other cargo (S3 * P3 * 439.10 days) (revised proposal - 447 days)	447000	447000
(iii).	Optimal Capacity of the Terminal (in Lakh tonnes / annum) and cars in units	Cargo in lakh tonnes / Car in units	Cargo in tonnes / Car in units
	- Cement	10.28	1028100
	- Food grains	4.69	469350
	- Timber & Other cargo	4.47	447000
	Total optimal Capacity of cargo	19.43	1944450
	Total optimal Capacity of Cars (units)	63875	95813

Sl. No.		Particulars	Final Revised estimates furnished by COPT vide letter dated 2 December 2013								Rs. in crores									
II Capital Cost		Cars	Cement	Cement		Food grains	Timber & Others - Total	Timber	Other	Total	Cars	Cement	Cement		Food grains	Timber & Others - Total	Timber	Other	Total	
				Transfer from Ship to Silo	Packaging & forwarding								Transfer from Ship to Silo	Packaging & forwarding						
(a) Cargo Handling Activity		Rs. in crores																		
(i) Civil Construction Cost		Rs. in crores																		
(a). Total Costs - apportionment as per berth occupancy																				
(i). Connecting Bridges		0.35	1.13	1.13	0.00	0.34	0.98	0.74	0.25	2.80	0.35	1.13	1.13	0.00	0.34	0.98	0.74	0.25	2.80	
(ii). Earth Pressure Relieving and Shore Protection arrangement		0.28	0.92	0.92	0.00	0.28	0.80	0.60	0.20	2.27	0.28	0.92	0.92	0.00	0.28	0.80	0.60	0.20	2.27	
(iii). Foreshore road and footpath		0.10	0.31	0.31	0.00	0.09	0.27	0.20	0.07	0.77	0.10	0.31	0.31	0.00	0.09	0.27	0.20	0.07	0.77	
(iv). Refurbishment of Roads and Drains		0.14	0.46	0.46	0.00	0.14	0.40	0.30	0.10	1.15	0.14	0.46	0.46	0.00	0.14	0.40	0.30	0.10	1.15	
(v). Construction of Security Compound wall		0.09	0.30	0.30	0.00	0.09	0.26	0.20	0.07	0.75	0.09	0.30	0.30	0.00	0.09	0.26	0.20	0.07	0.75	
(b). Specific Costs																				
(i). Cost of Existing Buildings		2.50	3.48	2.84	0.64	10.62	1.12	0.84	0.28	17.72	2.50	3.48	2.84	0.64	10.62	1.12	0.84	0.28	17.72	
(ii). Refurbishment of Existing warehouses and other buildings		0.00	0.00	0.00	0.00	9.23	0.00	0.00	0.00	9.23	0.00	0.00	0.00	0.00	9.23	0.00	0.00	0.00	9.23	
(iii). Development of Car parking area		3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	
(iv). Construction of flat type cement storage silo		0.00	39.96	0.00	39.96	0.00	0.00	0.00	0.00	39.96	0.00	39.96	0.00	39.96	0.00	0.00	0.00	0.00	39.96	
Total Civil Costs-Commodity Specific		6.93	46.55	5.96	40.59	20.80	3.83	2.87	0.96	78.12	6.93	46.55	5.96	40.59	20.80	3.83	2.87	0.96	78.12	
(ii) (a). Cargo Handling Equipment Costs																				
Mechanical & Electrical Costs																				
General Costs-divided as per berth occupancy																				
General Power Supply and Illumination		0.29	0.93	0.00	0.93	0.28	0.81	0.61	0.20	2.31	0.29	0.93	0.00	0.93	0.28	0.81	0.61	0.20	2.31	
Fire Fighting System		0.14	0.46	0.46	0.00	0.14	0.40	0.30	0.10	1.15	0.14	0.46	0.46	0.00	0.14	0.40	0.30	0.10	1.15	
Specific Costs																				
Cement Handling Equipment		0.00	44.07	0.00	44.07	0.00	0.00	0.00	0.00	44.07	0.00	44.07	0.00	44.07	0.00	0.00	0.00	0.00	44.07	
- 2 Pay loader of 5T		0.00	0.81	0.00	0.81	0.00	0.00	0.00	0.00	0.81	0.00	0.81	0.00	0.81	0.00	0.00	0.00	0.00	0.81	
- Cement Packaging unit 125T - 2 nos		0.00	28.84	0.00	28.84	0.00	0.00	0.00	0.00	28.84	0.00	28.84	0.00	28.84	0.00	0.00	0.00	0.00	28.84	
- Automatic Truck loading unit - 1 No		0.00	5.19	0.00	5.19	0.00	0.00	0.00	0.00	5.19	0.00	5.19	0.00	5.19	0.00	0.00	0.00	0.00	5.19	
- Power supply		0.00	9.23	0.00	9.23	0.00	0.00	0.00	0.00	9.23	0.00	9.23	0.00	9.23	0.00	0.00	0.00	0.00	9.23	
Bulk Cargo Handling Equipment		0.00	0.00	0.00	0	9.00	20.34	15.25	5.08	29.34	0.00	0.00	0.00	0	9.00	20.34	15.25	5.08	29.34	
- HMC 1 number of 64T		0.00	0.00	0.00	0	7.13	20.34	15.25	5.08	27.47	0.00	0.00	0.00	0	7.13	20.34	15.25	5.08	27.47	
- 2 Payloaders each of 5 T		0.00	0.00	0.00	0	0.69	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0	0.69	0.00	0.00	0.00	0.69	
- 4 Dumpers		0.00	0.00	0.00	0	0.78	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0	0.78	0.00	0.00	0.00	0.78	
- 1 Hopper		0.00	0.00	0.00	0	0.40	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0	0.40	0.00	0.00	0.00	0.40	
Log Grabbers		0.00	0.00	0.00	0	0.00	2.00	2.00	0.00	2.00	0.00	0.00	0.00	0	0.00	2.00	2.00	0.00	2.00	
Total Mechanical & Electrical Costs		0.43	45.46	0.46	44.99	9.42	23.55	18.16	5.39	78.86	0.43	45.46	0.46	44.99	9.42	23.55	18.16	5.39	78.86	
Total Capital cost (i) + (ii)		7.37	92.01	6.42	85.59	30.22	27.38	21.04	6.35	156.99	7.37	92.01	6.42	85.59	30.22	27.38	21.04	6.35	156.99	
(iii) Miscellaneous (5% on (i) and (ii))		0.37	4.60	0.32	4.28	1.51	1.37	1.05	0.32	7.85	0.37	4.60	0.32	4.28	1.51	1.37	1.05	0.32	7.85	
Total Capital Cost for Cargo Handling Activity (i) + (ii) + (iii)		7.738	96.613	6.746	89.867	31.733	28.750	22.09	6.66	164.83	7.738	96.613	6.746	89.867	31.733	28.750	22.09	6.66	164.83	
(b). Capital Cost For Berthing Services																				
(a). Construction of berth		-	-	-	-	-	-	-	-	82.58	-	-	-	-	-	-	-	-	82.58	
(b). Other Costs (5% of the above)		-	-	-	-	-	-	-	-	4.13	-	-	-	-	-	-	-	-	4.13	
Total Capital cost for berthing services		-	-	-	-	-	-	-	-	86.71	-	-	-	-	-	-	-	-	86.71	
(c). Total Capital Cost (a) + (b)		-	-	-	-	-	-	-	-	251.54	-	-	-	-	-	-	-	-	251.54	

Sl. No.	Particulars	Final Revised estimates furnished by COPT vide letter dated 2 December 2013									Estimates considered by TAMP								
III	Operating Cost	Cars	Cement	Cement	Food grains	Timber & Others - Total	Timber	Other	Total	Cars	Cement	Cement	Food grains	Timber & Others - Total	Timber	Other	Total		
				Transfer from Ship to Silo	Packaging & forwarding (Rs. In lakhs)							Transfer from Ship to Silo	Packaging & forwarding (Rs. In lakhs)						
(a)	Cargo Handling Activity																		
(i)	Cost of Power																		
	(a). Power Cost (Variable)	31.5	190.5	0.0	190.5	40.8	46.5	34.9	11.6	309.3	31.51	198.55	0.00	198.55	46.22	61.95	46.46 15.49 338.22		
		(4.376 lakh units General lighting (GL) * Rs. 7.20 per unit)			[6.45 lakh units GL + 4 units/tonne x 5 lakh tonnes (for cement bagging)] * Rs. 7.20 per unit	(150units/hour* 16 hours *62.6 berth days =1.502 lakh units for HMC + 4.166 lakh units GL) * Rs. 7.20 per unit	(150units/hour*16 hours *178.8 berth days =4.291 lakh units for HMC + 2.167 lakh units GL) * Rs. 7.20 per unit				(4.376 lakh units General lighting (GL) * Rs. 7.20 per unit)			[6.45 lakh units GL + 4 units/tonne x 5.281 lakh tonnes (for cement bagging)] * Rs. 7.20 per unit	(150units/hour*24hours *62.6 berth days =2.253 lakh units for HMC + 4.166 lakh units GL) * Rs. 7.20 per unit	(150units/hour*24 hours *178.8 berth days =6.437 lakh units for HMC + 2.167 lakh units GL) * Rs. 7.20 per unit			
	(b). Power Cost (Fixed)	3.6	69.2	0.0	69.2	9.7	27.9	20.9	7.0	110.4	3.61	69.19	0.00	69.19	9.75	27.85	20.89 6.96 110.40		
		75.15 KVA * 400 Rs. per month* 12m/ 100000			(241.43+1200) KVA * 400 Rs. per month* 12m/ 100000	(73.48+129.63) KVA * 400 Rs. per month* 12m/ 100000	(209.94+ 370.37) KVA * 400 Rs. per month* 12m/ 100000				75.15 KVA * 400 Rs. per month* 12m/ 100000			(241.43+1200) KVA * 400 Rs. per month* 12m/ 100000	(73.48+129.63) KVA * 400 Rs. per month* 12m/ 100000	(209.94+ 370.37) KVA * 400 Rs. per month* 12m/ 100000			
(ii)	Fuel cost	0.0	22.6	0.0	22.6	43.4	58.1	58.1	0.0	124.0	0.00	24.35	0.00	24.35	56.26	89.03	89.03 0.00 169.64		
					(8ltr/hr*2500 hrs*2 pay loaders*56.42 Rs./hr)	[[6ltrs/hr*4 Dumpers * 62.58 days *16 hours/day)+ (8ltr/hr*2 pay loaders*62.58days*16 hours)+ (8ltr/hr * 2 pay loaders * 2300hrs)]*56.42 Rs./ltr	[[12ltrs/hr*2 log grabbers * 134.1 days *16 hours/day) *56.40 Rs./ltr * 2 for ship to shore operation and truck loading operation							(8ltr/hr*5281 hrs*2 pay loaders*57.63 Rs./hr)	[6ltrs/hr*4 Dumpers * 62.58 days *24 hours/day)+ (8ltr/hr*2 pay loaders*62.5 hours)+ (8ltr/hr * 2 pay loaders * 2347hrs)]*57.63 Rs./ltr	[[12ltrs/hr*2 log grabbers * 134.1 days *24 hours/day) *57.63 Rs./ltr * 2 for ship to shore operation and truck loading operation			
(iii)	Repair & Maintenance of civil assets mechanical and electrical equipments including spares																		
	(a). Civil Assets (1% of Capital Costs)	6.9	46.6	6.0	40.6	20.8	3.8	2.9	1.0	78.1	6.93	46.55	5.96	40.59	20.80	3.83	2.87 0.96 78.12		
	(b). Mechanical Assets (5% of Capital Costs)	2.2	227.3	2.3	225.0	47.1	117.7	90.8	26.9	394.3	2.17	227.29	2.32	224.97	47.11	117.74	90.80 26.93 394.31		
(iv)	Insurance (1% on Gross fixed assets)	7.7	96.6	6.7	89.9	31.7	28.8	22.1	6.7	164.8	7.73	96.61	6.75	89.87	31.73	28.75	22.09 6.66 164.83		
(v)	Depreciation																		
	(i). Civil Assets (3.34% p.a.)	23.2	155.5	19.9	135.6	69.5	12.8	9.6	3.2	260.9	23.15	155.49	19.91	135.58	69.47	12.80	9.60 3.20 260.92		
	(ii). Mech. & Elec. assets (10.34% p.a. by COPT) (in our analysis 10%)	4.5	470.0	4.8	465.2	97.4	243.5	187.8	55.7	815.4	4.34	454.58	4.64	449.94	94.22	235.48	181.61 53.87 788.62		
(vi)	(a). License Fee for land area (base rate of Rs.28.13lakhs/Ha)	51.3	75.6	14.2	61.4	48.8	25.4	19.0	6.3	201.1	51.61	76.10	14.33	61.77	49.14	25.55	19.17 6.39 202.40		
		(1.823H*Rs. 28.13 lakh per H)	(2.6882H*Rs. 28.13 lakh/per H)	-	-	(1.736H*Rs. 28.13 lakh per H)	(0.9027 H *Rs. 28.13 lakh per H)				(1.823H*Rs. 28.308lakh per H)	(2.6882H*Rs. 28.308 lakh/per H)	-	-	(1.736H*Rs. 28.308 lakh per H)	(0.9027 H *Rs. 28.308 lakh per H)			
	(b). License Fee for water area (0.1lakhs/Ha)	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.3	0.04	0.12	0.02	0.10	0.04	0.11	0.08 0.03 0.30		
		(0.376H*0.1 lakh /per H)	1.207H*0.1 lakh /per H)	-	-	(0.367H*0.1 lakh /per H)	(1.050H*0.1 lakh /per H)				(0.376H*0.1 lakh /per H)	1.207H*0.1 lakh /per H)	-	-	(0.367H*0.1 lakh /per H)	(1.050H*0.1 lakh /per H)			
(vii)	(a). Other Expenses (5% on gross value of assets)	38.7	483.1	33.7	449.3	158.7	143.8	110.4	33.3	824.2	38.67	483.07	33.73	449.34	158.66	143.75	110.44 33.31 824.15		
	(b). Stevedoring expense for Cars (Rs. 155/- per car as done in the CHPT RORO terminal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	148.51	0.00	0.00	0.00	0.0	0.0	0.0 148.51		
	Total Operating Cost	169.6	1837.0	87.7	1749.3	568.0	708.3	556.6	151.7	3282.9	318.26	1831.90	87.68	1744.24	583.41	746.85	593.04 153.80 3480.41		
IV	Revenue Requirement & Proposed Tariff																		
(a)	Handling Charges																		
(i)	Revenue Requirement																		
	(a) Total Operating Cost	169.6	1837.0	87.7	1749.3	568.0	708.3	556.6	151.7	3282.9	318.26	1831.90	87.68	1744.24	583.41	746.85	593.04 153.80 3480.41		
	(b) Return on Capital Employed @ 16%	123.7	1545.8	107.9	1437.9	507.7	460.0	353.4	106.6	2637.3	123.74	1545.79	107.95	1437.84	480.75	453.38	353.40 106.60 2603.66		
	(c) Total revenue reuirmnt from cargo handling activity	293.3	3382.8	195.7	3187.1	1075.7	1168.3	910.0	258.3	5920.1	442.00	3377.68	195.63	3182.10	1064.16	1200.22	946.45 260.41 6084.08		
(ii)	Apportionment of Revenue Requirement																		
	Ratio of apportionment	99:1:0		100:0:0	95:0:5	90:5:5		95:0:5	95:0:5		99:1:0		100:0:0	95:0:5		95:0:5			
	(a) Handling Charges	290.4	3213.7	195.7	3018.0	968.2	1109.9	864.5	245.4	5582.1	437.58	3218.62	195.63	3022.99	957.74	1140.21	899.12 247.38 5754.16		
	(b) Storage Charges	2.9	169.1	0.0	169.1	53.8	0.0	0.0	0.0	225.9	4.42	159.10	0.00	159.10	53.21	0.00	0.00 0.00 216.73		
	(c) Miscellaneous Charge	-	-	0.0	-	53.8	58.4	45.5	12.9	112.2	-	0.00	0.00	0.00	53.21	60.01	47.32 13.02 113.22		
	(d) Total	293.3	3382.8	195.7	3187.1	1075.7	1168.3	910.0	258.3	5920.1	442.00	3377.73	195.63	3182.10	1064.16	1200.22	946.45 260.41 6084.11		

Sl. No.	Particulars	Final Revised estimates furnished by COPT vide letter dated 2 December 2013							Estimates considered by TAMP						
(iii)	Proposed tariff (Rs. per tonne)	Cars	Cement		Food Grains	Timber	Other Cargo		Cars	Cement		Food Grains	Timber	Other Cargo	
			Transfer from Ship to Silo	Packaging & forwarding						Transfer from Ship to Silo	Packaging & forwarding				
	(a) Composite Handling Charge - Cargowise														
	Share of Coastal to Foreign	95:5	95:5	95:5	95:5	5:95	25:75	-	95:5	95:5	95:5	95:5	5:95	25:75	-
	Revenue Requirement	290.4	195.7	3018.0	968.2	864.47	245.4		437.6	195.63	3022.99	957.74	899.12	247.38	5513.07
	Optimal Capacity (cars in units/ cargo in MT) (in tonnes in TAMP calculation)	63875	10.28	5.28	4.69	3.35	1.12	-	95813	1028100	528100	469350	335250	111750	-
	Rate Foreign cargo (Rs./ tonne) (Car- Rs/ car)	733.41	30.74	921.85	332.77	262.71	243.98	-	736.62	30.69	572.43	329.12	273.67	245.97	-
	Rate Coastal (Rs./ tonne) (Car- Rs./ car)	439.96	18.44	553.00	199.62	157.59	146.36	-	441.97	18.41		197.47	164.20	147.58	-
	(b) Storage Charges	Cars													
	(i). Revenue Requirement	2.93	-	169.14	53.79	-	-	-	4.42	0.00	159.10	53.21	-	-	-
	(ii). % of Cargo that attract storage charge	5%	-	20%	75%	-	-	-	5%	-	20%	75%	-	-	-
	(iii). Free period	5	-	7	7	-	-	-	5	-	7	7	-	-	-
	Cargo evacuation beyond free period														
	80% of cargo evacuated within	2.5 days	-	3.5 days	33.3% cargo in - 3.5 days	-	-	-	80% - 2.5 days		80% - 3.5 days	33.3% in - 3.5 days	-	-	-
	10% of cargo evacuated within	7.5 days	-	10.5 days	33.3% cargo in - 10.5 days	-	-	-	10% - 7.5 days		10% - 10.5 days	33.3% in - 10.5 days	-	-	-
	10% of cargo evacuated within	12.5 days	-	17.5 days	33.3% cargo in - 17.5 days	-	-	-	10% - 12.5 days		10% - 17.5 days	33.3% in - 17.5 days	-	-	-
	(iv). Cargo that will attract storage (in Million tonnes, cars in nos.)	3194	-	0.10	0.35	-	-	-					-	-	-
	For cars								3194	-	0.10	0.36	-	-	-
	For multipurpose cargo														
	1st 5 days	1st 7 days	2555	-	0.08	0.12	-	-	2555	-	0.08	0.12	-	-	-
	6th to 10th day	8th to 14th day	320	-	0.01	0.12	-	-	320	-	0.01	0.12	-	-	-
	11th day onwards	15th day onwards	320	-	0.01	0.12	-	-	320	-	0.01	0.12	-	-	-
	(v). Storage Charge beyond free period for the slabs														
	For cars	Rs./car/day		Rs. /tonne/day	Rs. /tonne/day				Rs./car/day		Rs/tonne/day				
	For multipurpose cargo														
	1st 5 days	1st 7 days	16.3	-	20.34	0.85	-	-	16.40	-	19.13	0.88	-	-	-
	6th to 10th day	8th to 14th day	24.5	-	30.51	1.28	-	-	24.60	-	28.70	1.32	-	-	-
	11th day onwards	15th day onwards	32.7	-	40.68	1.70	-	-	32.80	-	38.26	1.76	-	-	-
	(c) Miscellaneous Charge														
	(i). Revenue Requirement	-	-	-	53.79	45.50	12.92	-	-	-	-	53.21	47.32	13.02	-
	(ii). Capacity	-	-	-	4.69	3.35	1.12	-	-	-	-	4.69	3.35	1.12	-
	Rate per tonne (Rs.)	-	-	-	11.46	13.57	11.56	-	-	-	-	11.33	14.12	11.65	-
V	BERTH HIRE CHARGES														
(i)	Revenue Requirement (Rs. in lakhs)														
(a)	Operating Cost														
(i)	Repairs & Maintenance Charge (1% on capital cost for berth as per norm)	-	-	-	-	-	-	86.7	-	-	-	-	-	-	86.71
(ii)	Depreciation (@ 3.34%)	-	-	-	-	-	-	289.6	-	-	-	-	-	-	289.60
(iii)	Insurance (1% on cost of construction of berth)	-	-	-	-	-	-	82.6	-	-	-	-	-	-	82.60
(iv)	Annual Maintenance dredging costs	-	-	-	-	-	-	49.7	-	-	-	-	-	-	50.52
	Subtotal (i)	-	-	-	-	-	-	508.6	-	-	-	-	-	-	509.43
(ii)	Return on capital Employed @ 16%	-	-	-	-	-	-	1387.3	-	-	-	-	-	-	1387.33
(iii)	Total Revenue requirement from Berthing services (i + ii)	-	-	-	-	-	-	1895.9	-	-	-	-	-	-	1896.76
(iv)	Berth hire Charges														
	Rate per GRT per hour in Rs. - Foreign	-	-	-	-	-	-	1.93	-	-	-	-	-	-	1.86
	Rate per GRT per hour in Rs. - Coastal	-	-	-	-	-	-	1.16	-	-	-	-	-	-	1.12

BERTH HIRE CALCULATION

Sl. No.	Particulars	Revised Proposal of COPT dated 2 December 2013					Revised Estimates considered by TAMP				
		Cars	Cement Total	Food grains	Timber & Others	Total	Cars	Cement Total	Food grains	Timber & Others	Total
1	Handling rate	1000	5000	7500	2500		1500	5000	7500	2500	
2	Average GRT per vessel	11000	11300	11000	11125		15000	11300	11000	11125	
3	Average parcel size	1000	15000	15000	8000		1500	15000	15000	8000	
4	Optimal Capacity (in Million tonnes) (cars in units)	63875	1028100	469350	447000		95813	1028100	469350	447000	
5	No. of berth days (row 4/ row 1)	64.00	205.62	62.58	178.80	511.00	64.00	205.62	62.58	178.80	511.00
6	No. of berth hours (row 5x 24)	1536.00	4934.88	1501.92	4291.20		1536.00	4934.88	1501.92	4291.20	
7	No. of vessels (row 6 / row 5)	64	69	31	56		64	69	31	56	
8	Total GRT hours (row 4 x row 8)	16896000	55764144	16521120	47739600	136920864	23040000	55764144	16521120	47739600	143064864
9	Share of Coastal : Foreign	95:5	95:5	95:5	25:75		95:5	95:5	95:5	25:75	
10	Total GRT hours (Foreign Vessel)	844800	2788207	826056	35804700	40263763	1152000	2788207	826056	35804700	40570963
11	Total GRT hours (Coasta Vessel)	16051200	52975937	15695064	11934900	96657101	21888000	52975937	15695064	11934900	102493901
12	Revenue Requirement					1895.9					1896.76
	Berth hire - Foreign going vessel					1.93					1.86
	Berth hire - Coastal vessel					1.16					1.12

Working of Storage Charge by COPT

Sr.No.	Description	Cars	Cement	Food Grains
1	Optimal Capacity	63875	528100	447000
2	- Revenue Requirement (Rs. in lakhs)	2.93	169.14	53.79
3	- % of Cargo to attract storage charge	5%	20%	75%
4	- Cargo to attract storage charge beyond free period	3194	105620	350000
	Cargo evacuation beyond free period			
	80% of cargo evacuated within	2555	84496	116655
	10% of cargo evacuated within	319	10562	116655
	10% of cargo evacuated within	319	10562	116655
5	Average stay of cargo beyond free period			
	80% of cargo evacuated within	2.5	3.5	3.5
	10% of cargo evacuated within	7.5	10.5	10.5
	10% of cargo evacuated within	12.5	17.5	17.5
6	Storage Charge - Proposed by COPT			
	Storage charge for the slabs proposed			
	For cars For multipurpose cargo			
	1st 5 days 1st 7 days	16.3	20.34	0.85
	6th to 10th day 8th to 14th day	24.5	30.51	1.28
	11th day onwards 15th day onwards	32.6	40.68	1.70
7	Revenue from the proposed Storage Charge			
	For cars For multipurpose cargo	2.92	169.17	53.79
	1st 5 days 1st 7 days	1.03	60.1	3.5
	6th to 10th day 8th to 14th day	0.59	33.8	15.6
	11th day onwards 15th day onwards	1.30	75.2	34.7

STORAGE CHARGE CALCULATION CONSIDERED BY TAMP

Sr.No	Description	Cars	Cement	Food Grains
1	Optimal Capacity	95813	528100	447000
2	- Revenue Requirement (Rs. in lakhs)	4.42	159.10	53.21
3	- % of Cargo to attract storage charge	5%	20%	75%
4	- Cargo to attract storage charge beyond free period	4791	105620	335250
	Cargo evacuation beyond free period			
	80% of cargo evacuated within	3833	84496	111739
	10% of cargo evacuated within	479	10562	111739
	10% of cargo evacuated within	479	10562	111739
5	Average stay of cargo beyond free period			
	80% of cargo evacuated within	2.5	3.5	3.5
	10% of cargo evacuated within	7.5	10.5	10.5
	10% of cargo evacuated within	12.5	17.5	17.5
6	Storage charge approved by TAMP for the slabs proposed by COPT		Rs. /tonne.day	
	For cars For multipurpose cargo			
	1st 5 days 1st 7 days	16.40	19.13	0.88
	6th to 10th day 8th to 14th day	24.60	28.70	1.32
	11th day onwards 15th day onwards	32.80	38.26	1.76
7	Revenue from the proposed Storage Charge	4.42	159.12	53.22
	For cars For multipurpose cargo			
	1st 5 days 1st 7 days	1.57	56.57	3.43
	6th to 10th day 8th to 14th day	0.88	31.82	15.45
	11th day onwards 15th day onwards	1.96	70.72	34.34

Statement showing calculation of Handling Rate considered by TAMP

Sl. No.	Particulars	Transfer from ship to silo Packing and forwarding					
		Cars	Cement - Transfer from ship to silo	Cement - packing & forwarding	Food grains	Timber	Other Cargo
i.	Total capacity (tonnes)	95813	1028100	528100	469350	335250	111750
ii.	Share of coastal cargo	95%	95%	95%	95%	5%	25%
iii.	Share of Foreign Cargo	5%	5%	5%	5%	95%	75%
iv.	Capacity of coastal cargo (tonnes)	91022.35	976695	501695	445883	16762.5	27937.5
v.	Concessional rate for coastal cargo	60%	60%	Not applicable	60%	60%	60%
vi.	Adjusted coastal capacity (tonnes)	54613.41	586017	501695	267530	10057.5	16762.5
vii.	Capacity of foreign cargo (tonnes)	4791	51405	528100	23468	318488	83813
viii.	Total adjusted capacity (tonnes)	59404	637422	528100	290997	328545	100575
ix.	Total Revenue Requirement (Rs. in lakhs)	437.58	195.63	3022.99	957.74	899.12	247.38
x.	Handling Charges for Foreign cargo (in Rs. per tonne)	736.62	30.69		329.12	273.67	245.97
	Handling Charges for Coastal cargo (in Rs. per tonne)	441.97	18.41	572.43	197.47	164.20	147.58

COCHIN PORT TRUST
UPFRONT TARIFF SCHEDULE FOR MULTI PURPOSE TERMINAL AT Q1-Q3

1. Definitions – General

In this Scale of Rates, unless context otherwise requires, the following definitions shall apply:

- (i). **“Coastal vessel”** means any vessel exclusively employed in trading between any port or place in India to any other port or place in India having a valid coastal licence issued by the competent authority.
- (ii). **“Foreign going vessel”** means any vessel other than a Coastal vessel.
- (iii). **“Day”** shall mean the period of 24 hours starting from 06.00 hrs. of a day and ending at 06.00 hrs. on the following day.

2. General Terms and Conditions:

- (i). The status of the vessel, as borne out by its certification by the customs or Director General of Shipping, is the relevant factor to decide whether vessel is “coastal” or “foreign-going” for the purpose of levy of vessel related charges; and the nature of cargo or its origin will not be of any relevance for this purpose.
- (ii).
 - (a). The berth hire charges for all coastal vessels should not exceed 60% of the corresponding charges for other vessels.
 - (b). The cargo related charges for all coastal cargo other than thermal coal should not exceed 60% of the normal cargo related charges.
 - (c). In case of cargo related charges, the concessional rates should be levied on all the relevant handling charges for ship shore transfer and transfer from/to quay to/from storage yard including wharfage.
 - (d). Cargo from a foreign port which reaches an Indian Port “A” for subsequent transshipment to Indian Port “B” will be levied the concession charges relevant for its coastal voyage. In other words, cargo from/to Indian Ports carried by vessels permitted to undertake coastal voyage will qualify for the concession.
- (iii). Interest on delayed payments / refunds.
 - (a). The User shall pay penal interest on delayed payments under this Scale of Rates. Likewise, the terminal operator shall pay penal interest on delayed refunds.
 - (b). The rate of penal interest will be 2% above the Prime Lending Rate of the State Bank of India.
 - (c). The delay in refunds will be counted only 20 days from the date of completion of services or on production of all the documents required from the Users, whichever is later.
 - (d). The delay in payment by the users will be counted only 10 days after the date of raising the bills by the Terminal Operator. This provision shall, however, not apply to the cases where payment is to be made before availing the services where payment of charges in advance is prescribed as a condition in this Scale of Rates.

- (iv). All charges worked out shall be rounded off to the next higher rupee on the grand total of the bill.
 - (a). The rates prescribed in the Scale of Rates are ceiling levels, likewise, rebates and discounts are floor levels. The operator may, if they so desire, charge lower rates and/or allow higher rebates and discounts.
 - (b). The operator may also, if they so desire rationalize the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalization gives relief to the users in the rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling level.
 - (c). The operator should notify the public such lower rates and/ or rationalization of the conditionalities governing the application of such rates and continue to notify the public any further charges in such lower rates and/or in the conditionalities governing the application of such rates provided the new rates fixed shall not exceed the rate notified by the TAMP.
- (v). In calculating the gross weight or measurement by volume or capacity of any individual item, fractions upto and inclusive 0.5 shall be taken as 0.5 unit and fractions of above 0.5 shall be treated as one unit, except where otherwise specified.
- (vi). The minimum charge recovered in any one application / bill shall be rupees hundred only (₹100).
- (vii). No claim for refund shall be entertained unless the amount refundable is ₹100/- or more. Likewise, terminal operator shall not raise any supplementary or under charge bills, if the amount due to the operator is less than ₹100/-.
- (viii). Users will not be required to pay charges for delays beyond reasonable level attributable to the operator.

3. Charges for berth hire

3.1. Charges for berth hire

The berth hire charges for the vessels calling at the Terminal are as per the rates given below and subject to conditionality given thereunder:

GRT	Rate per GRT per hour or part thereof	
	Foreign going Vessel (in ₹)	Coastal vessel (in ₹)
Any volume of GRT	1.86	1.12

3.2. Conditionalities

- (i). Berth hire shall stop 4 hours after the time of the vessel signalling its readiness to sail. The time limit prescribed for cessation of berth hire shall exclude the ship's waiting time for want of favourable tidal conditions or on account of inclement weather or due to absence of night navigation facilities.
- (ii). The Master/Agents of the vessel shall signal readiness to sail only in accordance with favourable weather conditions and tidal movements.
- (iii). The penal berth hire for a false signal shall be equal to one day's (24 hours) berth hire charges.
 "False Signal" would be when the vessel signals readiness and asks for a pilot in anticipation even when she is not ready for un-berthing due to engine not being ready or cargo operation not completed or such other reasons attributable to the

vessels. This excludes signaling readiness when a vessel is not able to sail due to unfavorable tide, lack of night navigation or adverse weather conditions.

- (iv). No berth hire will be charged when the vessels idle at the Terminal berth when operations cannot take place due to breakdown of the equipment or power failure or any other reasons attributable to the Terminal operator.

- (v). Ousting priority/ Priority berth hire:

The rate and conditions for granting ousting priority berthing/ priority berthing will be governed by extant Government guidelines in this regard.

4. Cargo Handling Charges

4.1. Car Handling

4.1.1. Car Handling

The charges for handling cars either for loading into or discharging from the RO-RO ship shall be payable as per the rate specified below:

Commodity	Unit	Rate in Rupees	
		Foreign	Coastal
Cars	Per car	736.62	441.97

The charge prescribed above is a composite charge which comprises of the following activities (in any order):

- (i). Receiving the car at the Terminal.
- (ii). Allocation of storage space in the car parking facility and parking it.
- (iii). Providing adequate lighting at the car parking facility.
- (iv). Providing adequate security at the car parking facility.
- (v). Documenting the number of cars received at the car parking facility and numbers loaded into the ship.
- (vi). Maintaining the document relating to the ship
- (vii). Lashing onto the deck floor of the ship.
- (viii). All other Miscellaneous charges not specifically prescribed in the Scale of Rates.

4.1.2. Storage Charges

The storage charge for storage of cars in car parking yard beyond a free period of 5 days, applicable from the day following the date of completion of unloading, shall be as below:

Description	Rate in Rupees per car per Day or part thereof
Free period	5 days
First five days after expiry of free period	16.40
6 th day to 10 th day after expiry of free period	24.60
From 11 th day onwards	32.80

Notes:

- (i). For the purpose of calculation of free period, Customs notified holidays and Terminal's non-working days shall be excluded.
- (ii). Free period for import shall be reckoned from the day following the day of completion of final discharge from the vessel.
- (iii). Storage charges on cars shall not accrue for the period when the Terminal Operator is not in a position to deliver the cargo when requested by the User due to reasons attributable to the Terminal operator.

4.2. Cargo Handling for Cement, Food Grains and Other Cargo

4.2.1. Handling Charges

The charges payable by the importer/exporter for handling the import/export of bulk cargo is as specified below:

S. No.	Commodity	Rate in Rupees per Ton	
		Foreign	Coastal
1.	Cement-Transfer from ship to silo	30.69	18.41

The charge prescribed above is a composite charge which comprises of only one activity:

- (i). Loading/Unloading of the cargo from the ship

S. No.	Commodity	Rate in Rupees per Ton
1.	Cement- packaging & forwarding	572.43

The charge prescribed above is a composite charge which comprises of the following activities (in any order):

- (i). Loading/Unloading of the cargo from the ship
- (ii). Transporting the cargo to the storage yard
- (iii). Storing the cargo at the storage yard for the free period
- (iv). Loading the cargo from the storage yard onto the importer's vehicle/ unloading the cargo from the exporter's vehicle and transferring it into the storage yard.
- (v). Charges towards cement bagging.
- (vi). All other Miscellaneous charges not specifically prescribed in the Scale of Rates.

S. No.	Commodity	Rate in Rupees per Ton	
		Foreign	Coastal
1.	Food Grains	329.12	197.47

The charge prescribed above is a composite charge which comprises of the following activities (in any order):

- (i). Loading/Unloading of the cargo from the ship
- (ii). Transporting the cargo to the storage yard
- (iii). Storing the cargo at the storage yard for the free period
- (iv). Loading the cargo from the storage yard onto the importer's vehicle/ unloading the cargo from the exporter's vehicle and transferring it into the storage yard.
- (v). All other Miscellaneous charges not specifically prescribed in the Scale of Rates.

Sl. No.	Commodity	Rate in Rupees per Ton	
		Foreign	Coastal
1.	Other Cargo (bagged construction materials, bagged cement and bagged food grains)	245.97	147.58
2.	For Timber log	273.67	164.20

The charge prescribed above is a part of other cargo which comprises of the following activities (in any order):

For Sl no. 1

- (i). Loading/Unloading of the cargo from the ship and for direct feeding / delivery
- (ii). All other Miscellaneous charges not specifically prescribed in the Scale of Rates.

For SI no. 2

- (i). Loading/Unloading of the cargo from the ship
- (ii). Shore handling for movement to the stack yard outside the project area
- (iii). All other Miscellaneous charges not specifically prescribed in the Scale of Rates.

For Other cargo, there is no storage facility provided and the cargo is directly unloaded from the vessel to the trucks for movement.

4.2.2. Storage Charges

The storage charge for the cement and food grains stored in the yard beyond a free period of 7 days, applicable from the day following the date of completion of unloading, shall be as below:

Description	Rate in Rupees per MT per Day or part thereof	
	Cement	Food Grains
Free period	7 days	7 days
First seven days after expiry of free period	19.13	0.88
8th day to 14th day after expiry of free period	28.70	1.32
From 15 th day onwards	38.26	1.76

No storage space is provided for other cargo which includes timber, bagged construction material, bagged cement and bagged food grains. As a result no storage charges is prescribed for timber and other cargo.

Notes:

- (i). For the purpose of calculation of free period, Customs notified holidays and Terminal's non-working days shall be excluded.
- (ii). Free period for import cargo shall be reckoned from the day following the day of completion of final discharge from the vessel.
- (iii). Storage charges on cargo shall not accrue for the period when the Terminal Operator is not in a position to deliver the cargo when requested by the User due to reasons attributable to the Terminal operator.

4.2.3. Miscellaneous charges

The following Miscellaneous charges are applicable for the cargo handled:

Particulars	Unit	Rate in Rupees
Miscellaneous Charges for Food Grains	Per metric ton	11.33
Miscellaneous Charges for Other bagged Cargo	Per metric ton	11.65
Miscellaneous Charges for Timber log	Per metric ton	14.12

Notes:

- (i). The other cargo includes timber, bagged construction materials, bagged cement and bagged food grains.
- (ii). The above miscellaneous charges include Environment and Management, sweeping of cargo on the Wharf, safety and security measures etc.

5. General Note To Schedule (3) & (4) above:

The tariff caps will be indexed to inflation but only to an extent of 60% of the variation in Wholesale Price Index (WPI) occurring between 1 January 2013 and 1 January of the relevant year. Such automatic adjustment of tariff caps will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year.

PERFORMANCE STANDARDS

The Performance Standards that would be applicable for determining the Performance Linked Tariff are provided below:

(a). **Berth Hire Charges**

Depth as required for the berthing of the vessels having draft up to 9.14m, during all stages of the tide shall be maintained in front of the berth for a width of 50m.

(b). **Handling Charges**

- (i). Cement- Gross average unloading achieved from a vessel shall be not less than 5000 tonnes per day on the basis of 24 hour working and in the case of part day working (less than 24 hours), the requirement will be on prorated basis of duration in hours of the vessel/cargo availability for operation. Gross time shall be reckoned from the time of readiness of the vessel for commencing the cargo unloading operation till the completion of the unloading. Any break down period due to the non-readiness of the vessel/cargo shall be deducted from the gross time.
- (ii). Food Grains- Gross average unloading achieved from a vessel shall be not less than 7500 tonnes per day on the basis of 24 hour working and in the case of part day working (less than 24 hours), the requirement will be on prorated basis of duration in hours of the vessel/cargo availability for operation. Gross time shall be reckoned from the time of readiness of the vessel for commencing the cargo unloading operation till the completion of the unloading. Any break down period due to the non-readiness of the vessel/cargo shall be deducted from the gross time.
- (iii). Timber and Other Cargo (bagged construction material, bagged cement and bagged food grains) - Gross average unloading achieved from a vessel shall be not less than 2500 tonnes per day on the basis of 24 hour working and in the case of part day working (less than 24 hours), the requirement will be on prorated basis of duration in hours of the vessel/cargo availability for operation. Gross time shall be reckoned from the time of readiness of the vessel for commencing the cargo unloading/loading operation till the completion of the unloading/loading. Any break down period due to the non-readiness of the vessel/cargo shall be deducted from the gross time.
- (iv). Cars- Gross average unloading achieved from a vessel shall be not less than 1500 numbers per day on the basis of 24 hour working and in the case of part day working (less than 24 hours), the requirement will be on prorated basis of duration in hours of the vessel/cargo availability for operation. Gross time shall be reckoned from the time of readiness of the vessel for commencing the car unloading operation till the completion of the unloading. Any break down period due to the non-readiness of the vessel/cargo shall be deducted from the gross time.

SUMMARY OF THE COMMENTS RECEIVED FROM THE PORT USERS / DIFFERENT USER ORGANISATIONS AND ARGUMENTS MADE IN THIS CASE DURING THE JOINT HEARING BEFORE THE AUTHORITY

F. No.TAMP/46/2013 - COPT - Proposal from the Cochin Port Trust for fixation of Reference Tariff for Multi-Purpose Terminal at Q1 to Q3 at Mattancherry Wharf on BOT basis.

A summary of the comments received from the users and the comments of Cochin Port Trust (COPT) thereon is tabulated below:

Sl. No.	Comments of users	Comments of COPT
1.	IMC Limited	
(i).	As per COPT's submission, as they don't have any Reference Tariff for Cement, Food Grains, Cars and other Bulk Cargo, the tariff proposal is based on Guidelines of 2008 in view of provisions as per Clause 2.4 of Guidelines for Determination of Tariff for Projects at Major Ports, 2013. The 2008 Guidelines does not give any weightage to financing cost, royalty element etc. Hence the actual return to the operator is much lesser than the allowable return of 16%. Considering this the 2013 guidelines is more preferable. Hence, to secure the interest of BOT developer, an option may be provided that the developer reserves right to apply for tariff revision, as and when COPT or other nearby Major Port(s) are provided with tariff for relevant commodity that may be used as Reference Tariff.	As 2013 guidelines provide for setting Reference Tariff for each commodity/category of commodities and each service/category of services shall be determined for each port. This reference tariff would be the highest tariff approved by TAMP based on 2008 guidelines. "In case no Tariff has been fixed for a particular commodity in a particular Major Port Trust under the 2008 Guidelines, then TAMP will notify the highest Tariff under the 2008 Guidelines available for that commodity in the nearest Major Port Trust." In case no tariff has been fixed for a particular commodity under 2008 Guidelines in any Major Port Trust, then the Reference Tariff for such commodity would be determined by TAMP on scrutiny of the proposal received from the Major Port Trust by applying the principles of 2008 Guidelines within 45 days of receipt of the proposal. It is reiterated that since there is no Reference Tariff available for the commodities envisaged in the feasibility report of the project in COPT and highest tariff in the nearest Major Port Trusts, COPT has submitted the tariff proposal to TAMP based on 2008 Guidelines. The revenue requirement for particular commodity/service as per norm includes total operating cost plus 16% return on investment. The ROCE of 16% covers financing costs and profit margin.

		Once the upfront tariff is fixed and approved by TAMP, it is valid for the entire project period. Variations in tariff are allowed only to the extent of annual indexation to WPI and Performance Linked escalation in tariff.
(ii).	As per RFQ terms, COPT has allowed the selected developer to handle all commodities, except coal. Based on current traffic pattern and hinterland profile – fertilizers, salt, sand, iron and steel and news-prints are also major commodities for which a separate tariff element may kindly be fixed. Though feasibility report mentions that these commodities are handled in larger vessel, but in-fact many times such commodities are handled in smaller vessels as well. A detailed vessel size analysis, based on past traffic trends may kindly be conducted by COPT.	As per the feasibility report by KITCO, the anticipated cargo traffic includes car, cement, food grains and other cargo. A vessel size analysis based on past traffic trends as desired by IMC may not be possible at this stage.
(iii).	Timber being one of the major commodity (sharing almost 20% of the total traffic as per the feasibility report) has been grouped along with 'general cargo' category. Timber requires special handling and equipment, hence separate working and separate tariff element may kindly be fixed for the same.	Mobile Harbour Crane cost considered includes the cost of the grab required for handling timber. The cost of timber handling grab is only 2.8% of the overall cost. This crane is also used for other general cargo items. The daily output of both timber and other general cargo are the same and is 2500 MT. The quantity of other general cargo is very small compared to the total general cargo including timber. Therefore, the splitting of the rates will not have significant effect and shall be retained as such.
(iv).	Mobile Harbor Crane (MHC) can only be used for timber, food grains and other dry bulk cargo. Considering the vessel size restrictions, the vessels to be called at the berths will mostly be with 'gears', having almost similar handling efficiency as of selected MHC. The actual capacity of MHC would be in the range of 2.5 to 3 MMTPA and the serviceable cargo (wheat, timber etc.) is less than 1 MMTPA. This would not justify placement of MHC. Hence we propose to allow deploying a used/ second-hand MHC with usage benchmark criteria, rather than a new one, which will ultimately reduce the handling cost in the benefit of trade. Similarly, other handling equipments like Dumpers, Pay loaders would not be optimally utilized; hence for these we propose a 'hire/lease' model rather than 'ownership' model.	As per TAMP norm in clause 3.3.1 Optimal capacity of a terminal should be determined taking into consideration various components of a facility that may be required to be created, equipment and plant and machineries to be provided, productivity level and utilization level as per the norms prescribed, and clause 3.4.1 gives broad categories for estimation of Capital Cost by applying the relevant norms. The norms do not say anything about the new purchase/ secondhand usage/ hire/ lease model of the equipment. The operating cost, revenue requirement and proposed tariff have been calculated based on the cost of creation of assets and new purchase of equipments. If we reduce the

		cost of equipments as desired by IMC, the operating cost and estimated revenue requirement will be reduced. As a result the proposed tariff will be on lower side. Hence, the possibility of selling the project is remote. Further, out of the two berths having total length of 410 mtrs, one of the berths is always likely to be occupied by cement carriers/ car carriers. Based on this, effectively only one berth will be available for handling vessels carrying wheat, timber and other cargo, which require the service of MHC for the transfer of cargo between the vessel and berth. One MHC will have a productivity of 7500 tonnes per day in the case of wheat and 2500 tonnes per day in the case of timber and other cargoes, which is in line with the optimum berth capacity. Accordingly, it is confirmed that one MHC of 64T is adequate for achieving the optimal throughput of the terminal.
(v).	Basis of cost of allocation of 'Existing Building', in Civil Construction Cost is not clear.	Cost of existing building is apportioned based on the uses. Further, cost of common building is apportioned based on the berth occupancy.
(vi).	Because of recent Rupee devaluation, the costs of material handling equipments (which are mostly imported) have escalated by 25-30%. The revised cost may kindly be considered.	Capital cost estimate pertain to July 2013. However, the import items involved in this project is marginal and the variation in the foreign exchange will not have significant effect on the overall cost of the project.
(vii).	While calculating the operating expenses of all commodities, deployment of 'Operating Staff' is not considered which is part and parcel of basic stevedoring. This is 'direct cost' element relating to commodity handling and not a 'general cost' element. Reference may be drawn upon the order passed by TAMP in case of Chennai Port Trust Ro-Ro cum Multipurpose terminal wherein stevedoring cost for car movement was considered as operating expenses. Similarly for dry bulk operating staff deployment would be required for loading/unloading, transportation of material to / from yard, storage / housekeeping and receipt / dispatch (by road/rail). The same may kindly be considered while calculating the handling cost.	As provided in the TAMP Guidelines (para 5(6) of annexure-V, 2008 guidelines) 5% of the gross fixed asset value has been provided against other expenses under the operating costs. This other expenses consist of salaries and wages of maintenance staff including welfare and other expenses towards them. Therefore, a separate working out and addition of the cost towards operating staff would result in duplication. Hence, it is not attempted.
(viii).	While calculating the optimal capacity of 'cars' commodity, no consideration has been made for the 'gate capacity'.	Optimal capacity of cars is determined based on the TAMP guidelines by taking the lower of quay or yard capacity. In this

		case, the yard capacity is lower and hence taken as the optimal capacity.																																																																
(ix).	Considering the berth length and channel / draft restriction, at a time two vessels can be berthed. However, the planned equipments are meant to handle one vessel at a time. This will have a bearing on the overall handling rate and optimal capacity. The impact of this may kindly be considered while assessing the optimal capacity.	Out of the two berths having total length of 410 mtrs, one of the berths is always likely to be occupied by cement carriers/ car carriers. Based on this, effectively only one berth will be available for handling vessels carrying wheat, timber and other cargo, which require the service of MHC for the transfer of cargo between the vessel and berth. One MHC will have a productivity of 7500 tonnes per day in the case of wheat and 2500 tonnes per day in the case of timber and other cargoes, which is in line with the optimum berth capacity.																																																																
(x).	As per contract with GACL, cement handling equipment with pneumatic unloading capacity of 500 tonnes per hour is proposed. However, with similar equipments for Q1 - Q3 berths the handing capacity is assumed to be 5000 MT/day. This may kindly be reconciled.	The rated capacity of pneumatic system is 500T/ hr. The average hourly capacity achieved will be much less than this. The 5000T/ day handling capacity has been considered in the feasibility reports based on the handling performance at the existing berth.																																																																
(xi).	For storage charge calculations the free period of 5 days is not as per Guidelines. Considering the cargo mix, we would suggest to allow a blended free storage period of 7 days, as considered by TAMP in case of Chennai Port Ro-Ro cum Multipurpose terminal tariff order.	Proposed Free period of 5 days in the case of car storage and 7 days in the case of other cargo like cement, food grains and others have been determined based on the TAMP guidelines and prevailing practice at the Port.																																																																
(xii).	The suggested storage charges are inordinately high and unrealistic. There is anomaly in the basis of calculation and is not as per prevailing practices. Due to this methodology, the storage charges are impracticable and will act a deterrent for the customer to handle cargo through berth no.Q1 – Q3. For example in case of wheat, no customer will be paying more than ₹100 + berth hire – reference may be drawn upon prevailing market prices. It is requested, while fixing the tariff a holistic approach may be taken, which not only satisfies the prescribed guidelines but also offers a practicable and implementable tariff. Further, using the proposed rates, the actual revenue to be collected is substantially higher than the expected realization as per norms. when the cargo stays for 5, 10 and 15 days over and above the allowable free period of 5 days: <table><tr><th rowspan="2">Cargo</th><th rowspan="2">Revenue Requirement as per Proposal</th><th colspan="3">Scenario 1</th><th colspan="3">Scenario 2</th><th colspan="3">Scenario 3</th></tr><tr><th>Storage period</th><th>Actual Revenue</th><th>No of times in excess</th><th>Storage period</th><th>Actual Revenue</th><th>No of times in excess</th><th>Storage period</th><th>Actual Revenue</th><th>No of times in excess</th></tr><tr><td>Unit></td><td>Lakhs</td><td>Days</td><td>Lakhs</td><td>Times</td><td>Days</td><td>Lakhs</td><td>Times</td><td>Days</td><td>Lakhs</td><td>Times</td></tr><tr><td>Cars</td><td>3.0</td><td>5</td><td>16.0</td><td>5.33</td><td>10</td><td>44.4</td><td>14.80</td><td>15</td><td>82.6</td><td>27.54</td></tr><tr><td>Cement</td><td>161.8</td><td>5</td><td>827.8</td><td>5.12</td><td>10</td><td>2299.9</td><td>14.21</td><td>15</td><td>4278.2</td><td>26.44</td></tr><tr><td>Food Grains</td><td>50.3</td><td>5</td><td>42.0</td><td>0.83</td><td>10</td><td>116.9</td><td>2.32</td><td>15</td><td>217.7</td><td>4.33</td></tr></table>	Cargo	Revenue Requirement as per Proposal	Scenario 1			Scenario 2			Scenario 3			Storage period	Actual Revenue	No of times in excess	Storage period	Actual Revenue	No of times in excess	Storage period	Actual Revenue	No of times in excess	Unit>	Lakhs	Days	Lakhs	Times	Days	Lakhs	Times	Days	Lakhs	Times	Cars	3.0	5	16.0	5.33	10	44.4	14.80	15	82.6	27.54	Cement	161.8	5	827.8	5.12	10	2299.9	14.21	15	4278.2	26.44	Food Grains	50.3	5	42.0	0.83	10	116.9	2.32	15	217.7	4.33	The rates have been calculated based on the methodology provided by TAMP in the guidelines and also reference has been taken from other approved tariff proposal of TAMP.
Cargo	Revenue Requirement as per Proposal			Scenario 1			Scenario 2			Scenario 3																																																								
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General Cargo	55.1	5	276.1	5.01	10	766.8	13.92	15	1425.9	25.88			
	Further as per storage charge calculation, there is no rational in assuming the % of Cargo that would attract storage charge. This is not based on any prevailing norms / practice and hence this assumption may be removed and the entire cargo should be subject to storage charges as prescribed slab rates. The number of storage days may change as per market dynamics, hence the basis of allocation of storage of 80%:10%:10% may kindly be uniformly changed to a rational proportion like 50%:25%:25%.												
(xiii).	Basis of working the Power cost (especially for cement handling) is based on broad estimations and may kindly be made based on a proper analysis.	The equipment involved in cement bagging comprises of air compressors, bubblers, operation of air filters, screw conveyors apart from the operations of the bagging equipment. The operational techniques involved in cement storage, retrieval and bagging operations are totally different from the operations involved in the case of finished fertilizer bagging. The power requirement at the rate of 4 units per tonne of cement has been considered based on the performance details of the similar terminal now in operation in COPT.											
(xiv).	Basis of calculation of fuel consumption for dumpers and pay loaders is not in line with actual consumption pattern.	Fuel consumption of pay loaders and dumpers has been taken based on the discussions with the various operators of similar type of equipment. It may be noted that, fuel consumption for 10T capacity pay loaders as per the TAMP guideline is 12L/hr. As per the technical details, the fuel requirement of 5T capacity is about 70% of 10T capacity pay loaders.											
(xv).	Miscellaneous charges in case of cement handling may not be considered as no ancillary activities are involved in the process.	Miscellaneous charges are not considered for cement handling in the proposal.											
(xvi).	Since the berths are also used for cargo handling while loading / unloading, 25% of the cost of construction of berth may be apportioned as handling cost. Reference may be drawn upon order passed by TAMP in case of Chennai Port Trust Ro-Ro cum Multipurpose wherein guidelines relating to Mega Container Terminal was suitably adopted.	Proposed berth hire charges for the vessels calling at the terminal are calculated based on the normative approach as per the TAMP guidelines.											
(xvii).	Cars and Cement being Coastal Cargo and as per guidelines the tariff is compensated by 66% of Foreign Cargo, irrespective of actual CAPEX and OPEX. Due to this the overall tariff doesn't becomes attractive. This aspect should be kept in mind while working of Coastal Tariff.	Tariff is calculated based on the TAMP guidelines.											
(xviii).	Cost of dredging for maintenance is not practicable and the same should be in the scope of the Port.	The proposed tariff includes berth hire charges to be collected by the terminal											

		operator. Hence, cost for construction of berth, capital cost for alongside berth and maintenance dredging cost as per norm is to be borne by terminal operator.
2.	Indian National Shipowners' Association	
(i).	From the documents provided with the proposal, we understand, there is an agreement signed around 2001 with GACL for handling of Bulk Cement vessels. The Q1-Q3 berths (combined berth length of 410 m) are now being offered on BOT basis as a common user facility of normal quay operations with extended facility for handling bulk cement plant for bagging also. The GACL being given first priority of berthing because of the capital investment made by GACL. When these berths Q1-Q3 are vacant i.e. GACL vessel is not there for berthing, the berth will be made available for common user. Clarifications are necessary on following:	
	(a). Our above understanding is correct, if not; please help us understand the correct position.	Yes, the position is correct. GACL is given priority in berthing on account of the agreement signed with Cochin Port.
	(b). A vessel once berthed because of GACL vessel being not arrived or space available being sufficient to accommodate the vessel, will be allowed to complete her operations and not evacuated to accommodate GACL vessel.	Correct, the vessel will be allowed to complete the operations before accommodating the GACL vessel.
	(c). Vessel carrying cement or any other cargo in bags or other type of packing will be provided berth or not? What handling charges will be levied for handling such bagged or other break bulk cargo?	Yes, vessels carrying cement or other cargo in bags or other type of packing will be provided berth. The handling charges are already provided in the upfront tariff proposal under other cargo. It may also be noted that the major item under other cargo as envisaged in the Feasibility Report of the project is Timber Logs.
(ii).	There are only three types of cargo mentioned in proposed tariff i.e. Car, Bulk Cement and Bulk Foodgrain. Are other types cargoes not allowed at this new facility called "Multipurpose terminal"?	Other types of cargo are allowed and the tariff is also set for other cargo mainly Timber Logs.
(iii).	The storage charges for yard stowage proposed include bulk cement which presumed would be pumped into silos and not left on yard so storage for Bulk cement on wharf is out of question. However, no storage shown for break bulk cargoes.	The storage charges for Break Bulk are shown under tariff applicable to other Bulk Cargo.
(iv).	For 410m length of berth only one mobile harbour crane is provided. We feel it is inadequate considering the average GRT of ships taken for calculations to be around 11000 GRT. Such general ships when equipped with gear have minimum 3 cranes. Also since the berth hire is kept exceptionally high 1.559 ₹/ GRT/ hr as compared to about 0.175 ₹/ GRT/ hr it would be hard on ships to pay nearly 9 times berth hire and have only one mobile crane to work with. The productivity parameters mentioned for logs at 2500 t/ day is too less for a 15000 tons cargo. Further in event of the only available crane being rendered out of operation, even if temporarily, can cause server cascading effect. If the berth is being designated as Multipurpose,	The Mobile Harbor Crane (MHC) proposed is of high capacity of about 60 MT. More no. of cranes is not proposed initially to reduce capital investment when the volume of cargo requiring the services of MHC is limited. However, the operator will be free to install additional cranes according to the build up of cargo. The productivity parameter specified for Timber Logs at 2500 TPD is

	sufficient minimum provisions should be available for alternate crane and not leave the 410m quay out of operation because of one crane being declared non operational.	the TAMP norm, which is only indicative.
(v).	The existing draft should not be seen as a limiting factor as with technology higher draft could be achieved later date and benefits could accrue from economy of scale.	The existing draft restriction is based on the demand and financial viability. If traffic demands additional draft, based on the financial viability, Concessionaire is permitted to deepen the berth frontage at their cost. If additional cost warrants for maintenance of channels to meet such demand, same has to be borne by the Concessionaire. As of now, the maximum permitted draft in Mattancherry channel is 12.5m at Q4 berth, which is based on the size of the vessel can maneuver in Mattancherry channel. If Concessionaire demands further draft, all expenditure for facilitating vessel maneuvering in Mattancherry channel has to be borne by the Concessionaire.
(vi).	The tariff should thereafter provide handling charges for all types of dry cargoes. If vessel's cargo gear is available, would there be a choice to use mobile crane or ship's gear? If ship's gear is used what would be handling charges?	Tariff is provided for cargoes estimated to avail the facility at Q1-Q3 as per the Feasibility Report of the project. The handling charges set by the TAMP are composite and the capital & operating cost of the MHC are factored in the same.

2. A joint hearing in this case was held on 29 October 2013 at the COPT premises. The COPT made a power point presentation of its proposal. At the joint hearing, the COPT and the users/ user associations have made the following submissions:

Cochin Port Trust (COPT)

- (i). Makes a brief power point presentation of its proposal. Hard copy is given.
- (ii). Mattancherry has 4 wharfs Q1 to Q4. Draft is 9.14 mtrs.
- (iii). COPT plans to reconstruct Q1-Q3 under PPP mode to optimize, resources and overall revenue of COPT.
- (iv). Total yard area is 7.15 hectares including 1.5 hectare for parking 1,000 cars.
- (v). Upfront tariff for cement, food grain and other cargo is proposed based on the norms prescribed for multipurpose berth in 2008 guidelines.
- (vi). For Ro-Ro facility, it is prepared based on similar lines of CHPT upfront tariff Order for Ro-Ro with bulk cargo.

Cochin Steamer Agents Association

- (i). We welcome the proposal of the port.

- (ii). Berth hire proposed for cement is almost 500% higher than the berth hire prescribed in the existing Scale of Rates of the COPT. Confirm whether it includes dredging cost.
[COPT: Present berth hire in the Scale of Rates of COPT is arrived following cost plus model under 2005 guidelines. In the proposed arrangement, berth hire is arrived following norms and principles of 2008 guidelines. Here the berth hire is to be paid to the successful BOT operator. Overall cost for handling cement i.e. vessel related charges plus cargo related charges together at the proposed tariff will be closer to existing tariff. There is no much of difference.]
- (iii). The proposed berth hire rate is very high. Port should allow the option of collection of berth hire from Shipping Lines or from cargo receiver.
[COPT: We will examine the point and introduce a suitable note as to who will pay the berth hire charge.]
- (iv). Presently, cars are handled at Chennai Port Trust (CHPT) which are, mostly export cars. It is presumed that COPT has considered coastal cars as the major share.
[COPT: We have assumed coastal cars at 95% and foreign cars at 5%.]
- (v). Environmental clearance will be required for cement packaging and forwarding facility.
[COPT: Few users are already handling cement at our port. Same principles relating to environmental aspects will apply for cement handling facility envisaged in this project.]
- (vi). Whether grabs are envisaged along with shore HMC for handling timber and other cargo?
[COPT: Grabs are considered with shore HMC in the proposal.]

Cochin Chamber of Commerce & Industry

- (i). Clarify on the applicability of labour cost for these berths.
[COPT: This is a BOT terminal. Port will not supply any labour. The arrangement will be similar to other BOT operators presently operating in the port.]

3. A summary of the comments received from users/ user organisations/ shortlisted applicants on the revised proposal dated 15 October 2013 filed by the port and reply of COPT thereon are tabulated below:

Sl. No.	Comments of users/ user organisations/ shortlisted applicants	Response of COPT
1.	Indian National Shipowners' Association	
	INSA has reiterated most of the comments furnished by them earlier on the original proposal on which COPT has already furnished its comments. The additional comments made by the INSA on the revised proposal are given below:	
(i).	For 410m length of berth only one mobile harbour crane is provided. TAMP 2008 guidelines for multipurpose berth requires 3x20 T Cranes each with provision for Grab and Hook attachment. One Mobile Harbour Crane is inadequate considering the average GRT of ships taken for calculations to be around 11000 GRT. Such general ships when equipped with gear, generally have minimum 3 cranes. Though the Mobile crane provided will have capacity of 64 Tonnes, it will not be able to deliver what 3x20 T Cranes can deliver in	The concern on higher Berth Hire is also answered since the incidence is borne by the cargo interests.

	terms of productivity, flexibility and contingency provisions. The berth hire is kept exceptionally high at 1.559 ₹/ GRT/ hr as compared to about 0.175 ₹/ GRT/ hr at normal berths. It would be hard on ships to pay nearly 9 times berth hire and have only one mobile crane to work with.	
(ii).	In event of the only available crane being rendered out of operation, even if temporarily, can cause severe cascading effect. If the berth is being designated as Multipurpose, sufficient minimum provisions should be available for alternate crane and not leave the quay out of operation because of one crane being declared non operational. With no existing traffic of Car Carriers along coast even if the fully projected traffic materializes and for near 72 days of the year, a car carrier occupies the berth, availability of one mobile crane for the balance 293 days is not appropriate utilisation of available quay length.	
(iii).	In calculating the optimal capacity calculation for cargo of Cars, mention is made of dwell time at Chennai which is incorrect, because Chennai Port handles export of cars which are to be brought in port in sufficient number well in advance to plan it's loading. Whereas the Cochin multipurpose terminal is designed for import of cars which can be driven away same day. Availability of number of drivers should not be the restrictive factor. The volume proposed could therefore be much more, especially if movement of cars from Southern region to North West India also materializes as per the plan. Correspondingly, the recovery for all cost heads should get reduced to the extent.	The low volume of cars projected is as per the Feasibility Report, and there is no scope to increase the same now.
(iv).	The proposal mentions that the MHC crane considered has grab capacity of 15 cubic metre. 800 tons per hour capacity designed is achievable for dense or heavy cargo. The major bulk cargo considered is wheat on coastal ships. Stowage factor of this cargo is around 1.4 cubic metre per tonne. Each grab move will therefore discharge about $15/1.4 = 10.7$ tonnes of cargo say 11 tonne. Similarly the Timber logs also are a light cargo which will give much lesser productivity of weight than what could be achieved for a heavy cargo. The productivity envisaged would be achievable with lesser capacity say 3x20 T cranes instead of one 64 T capacity crane.	Only one HMC is proposed to restrict the capital investment.
(v).	Why should 64 Tonnes MHC be provided at a multipurpose berth which is not handling parcels of more than 15 tons? This is unnecessary increasing the capital	The operator will be free to attach such gears including higher capacity grabs within the capacity of the HMC according to the requirements of cargo handling.

	cost and tariff of the project which will ultimately be paid by the end common consumer. When government is probing for cutting down logistics cost and handling charges in ports, it would be improper for a terminal to install machinery capacity that is in excess and not really required for handling the projected cargo.	
(vi).	There is no mention of separate tariff or discount if ship's gear is used. Since there is only one MHC, using own gear by geared vessels will become terminal's requirement and just the way container terminals provide a discount or concession when ship's gear is used, provisions should be made in SOR.	The handling charges have been worked out considering the capital and operating cost of the HMC.
(vii).	Handling charges of ₹327/ ton and ₹251/ ton are proposed for foodgrain and other cargoes. We feel such high rate of handling charges would deter users from bringing cargo to this terminal because all inclusive composite charges for handling cargo in containers at Cochin if calculated per ton will be 30% less. Additionally, as mentioned before ship's berth charges are also kept at exorbitant level of the normal charges. We wonder how projected cargo of Car, Foodgrain and Timber would be serviced without burdening trade with exceptional additional cost.	The handling charges may be seen against the higher throughput, and the investments concerned.
2.	Cochin Steamer Agents Association	
(i).	In respect of 'Reference Tariff for Multipurpose terminal at Q 1 to Q3', our association observed that the berth hire charges appeared to be very much on the higher side. In response COPT had submitted that, with the type of cargo anticipated to be handled at this terminal, mostly the receivers would bring in their own (or voyage charter) vessels and hence COPT feel that berth hire would be factored in accordingly. On this matter we would request that party paying the berth hire charges should be made optional (that is - payable either by the carrier or the receiver) so that there can be more transparency.	(a). As correctly envisaged, the cargo expected at the terminal would be captive cargo wherein it will have one consignee only. Therefore, the cost of berth hire as well as handling charges and storage charges would be borne by a single consignee only. Hence any minor changes in these charges may not result in a drastic change on the overall transport and logistics cost of the consignee. (b). The concern of CSAA is addressed in our reply. Hence, introducing any special note in the tariff proposal is not warranted.
(ii).	The wharf crane that is planned to be installed at the facility should have facility for attaching all types of bulk cargo handling grabs.	It is confirmed that wharf crane expected to be installed will have all type of accessories to handle bulk/ bagged/ timber consignments.
3.	Ambuja Cements Limited	
(i).	As per clause-2 of the MOU signed between ACL (then Gujarat Ambuja Cements Ltd) and COPT on 27 March 2001, priority berthing for Ambuja Cement's vessels at Q1 berth discharging cement should not be affected in any way.	Priority berthing to GACL vessels will be ensured at berth Q1. Provision for the same is incorporated in the Bid documents.
(ii).	As per clause-4, Ambuja Cements Ltd. had	The pipelines connecting to the silos are

	agreed for laying the pipeline for handling the cement underneath the berth, so that there will not be any obstructions for any movement of cargo/ vehicles or berthing of any other vessel. However, due to the prevailing weak condition of the berth at that time, this could not be achieved during construction of the cement terminal. We request that the pipeline for unloading cement should be laid underneath the berth to facilitate the discharge of cement from the ship as close as possible to the ship side during this development of the berth. Also as per the RFQ, it is proposed to handle cars, timber and other breakbulk cargoes on these berths. During handling of such cargoes or any other cargoes, Ambuja operations and the installations for conveying cement from ship to silo should not be hampered/ disturbed in any way. During the process of construction, necessary precautions and care should be kindly taken to avoid any damage to the existing installations of cement conveying equipment on the berth and ashore. Damages if any should kindly be made good and restored to the original condition at the sole responsibility of Cochin Port Trust.	proposed underneath the berth. As per the draft concession agreement any development on the DBFOT basis has to be approved by the Concessioneering Authority (COPT) and Port will meticulously take note of such issues in the better interest of the optimal utilization of the created facility and unhindered movement of the cargo for GACL. In such a scenario, the possibility of damage to cargo/ assets of GACL does not arise.
(iii).	As per clause-14, Ambuja Cements Ltd. has agreed to pay wharfage charges and berth hire charges, pilotage, port dues etc., as per the port scale rules in force from time to time which should be the general tariff as applicable. Ambuja Cements Ltd. should not be charged higher than the general tariff and be put at a disadvantage in any manner when compared to any other company handling cement cargo at COPT owned berths.	When MOU is entered between GACL and COPT, the available berth was more than 70 years old. In the circumstances as envisaged in the MOU, GACL could not provide delivery pipelines underneath the berth and substantial amounts are incurred in every shipping operation by GACL for providing services of crane continuously for performing operations. When new berthing structure is available, GACL is free from incurring such expenditure and new berth facility is available to operate optimally without any of hindrance/ constraints. Overall expenditure incurred for reduced unit of one tonne is by and large same expenditure as envisaged in MOU. If any insignificant increase in overall cost arises it should be absorbed while they are availing service of new berthing services. As the tariff arrangement is based on the model of development of the berth, exact parity cannot be ensured with other cement operators.
(iv).	As per clause-3 of the page-4, port authorities have agreed to keep the draft at 9.14 mtrs. and that they will get it dredged to maintain the required depth. The same work will be carried out by the Port Trust at their cost. Subsequent to the development of the berths Q1 to Q3, COPT shall ensure the same draft/ depth and facilitate turning around of ships at 9.14 mtrs. draft to	The draft of 9.14 m will be ensured. The concession agreement will address such requirements.

	accommodate cement carriers either on port or starboard side.	
(v).	After the contract is awarded to the successful developer, the construction should be undertaken in such a way that there should not be any disruption to the ship from discharging cargo to the Ambuja silos in any manner, especially as the plan shows an increase of 21 mtrs. extension of jetty-front into the deeper water aligning with Q4 involving extensive piling and other heavy construction activities.	This concern of GACL will be addressed in Draft Concession Agreement.
(vi).	In the project details it is envisaged to increase the jetty frontage to align with Q4 berth, thereby increasing the breadth of the jetty by 21 mtrs. resulting in increase of pipeline length for conveying of cement from ship to silo. This will reduce the discharge rate of cement from the ship to silo. COPT shall not impose any penalty for reduced discharge rate, as COPT has indicated 5000 TPD cement discharge rate in the RFQ. We would like to highlight the fact that Ambuja Cements will incur higher costs on account of total power consumed on the ship and shore with increased port stay of vessel along side the berth due to this increased length of pipe and consequent lower discharge rate. Ambuja Cements Ltd. has been the pioneer of transporting bulk cement through sea and have invested huge amount to set up the first Bulk Cement Terminal in Cochin Port for mutual benefit. Ambuja Cements Limited has an agreement to land a minimum quantity of 3 lac tons of cement per year which is being complied with, and enjoys a very cordial relationship with the COPT. COPT is requested to ensure that all the above issues are mentioned in the RFQ/ tender as well as in the final contract awarded to the developer to avoid causing any disadvantage or injustice to Ambuja Cements Ltd. in their existing and future operations.	GACL is well aware that the existing berthing facility was in dilapidated condition when MOU is entered into and any point of time during the license period such modifications are envisaged. Under these circumstances, new facilities to be created will not place GACL in any disadvantage position in comparison with other agencies engaged in cement handling. Further, the productivity is not likely to be affected seriously with the berth extending by 21 m. It is also relevant that Ambuja has agreed for ensuring the productivity of 500 TPH whereas we have proposed 5000 TPD only considering the realized values in the last three years.
