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Tariff Authority for Major Ports

GNO.51 **New Delhi,** **16 February 2010**

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 Paradip Port Trust for setting upfront tariff for multipurpose berth to handle clean cargo including containers in pursuance of the guidelines for upfront tariff setting for Public Private Participation (PPP) projects at Major Ports vide this Authority's Notification No.TAMP/52/2007-Misc. dated 26 February 2008 as in the Order appended hereto.

(Rani Jadhav)
Chairperson

Tariff Authority for Major Ports

Case No. TAMP/43/2009-PPT

Paradip Port Trust **- - -** **Applicant**

O R D E R

(Passed on this 19th day of January 2010)

This case relates to a proposal dated 22 October 2009 and 12 November 2009 received from the Paradip Port Trust (PPT) for fixing upfront tariff for multipurpose berth to handle clean cargo including containers on BOT basis at Paradip Port in pursuance of the guidelines for upfront tariff setting for Public Private Participation (PPP) projects at major port trusts notified by this Authority vide Notification No.TAMP/52/2007-Misc., dated 26 February 2008.

2. The salient features of the proposal are as follows:

(i). Southern part of the Port will be developed as a multipurpose terminal for handling "clean cargo" which are non-hazardous and dust free cargo.

(ii). Commodities to be handled

(a). Iron & steel products

(b). Aluminum ingots, pig iron

(c). Finished fertilizers, food grains, sugar (both raw and finished)

(d). Containerised cargo (excluding hazardous and dusty cargo like iron ore, thermal coal, chrome ore, chrome concentrate, charge chrome, ferro chrome, silicon manganese ore, coking coal, hard coke, fertilizer raw materials and other cargo of similar nature).

(iii). Berth Length – 450 meters.

(iv). The ships carrying this cargo are generally of smaller capacity under 50,000 DWT; two ships would be able to operate at the clean cargo berth of 450 meter length.

(v). Estimated capital cost – Rs.445.51 Crores
[including berth, equipment, buildings, stockyard, rail connectivity, utilities, land preparation, contingency including financing cost and capital dredging]

(vi). Optimum terminal capacity – 4.98 say 5.0 MTPA.

(vii). Operating cost – Rs.45.65 Crores
[containerised cargo component - Rs.26.85 + other clean cargo component -Rs.18.80]

(viii). Annual Revenue Requirement – Rs.84.37 Crores
[containerised cargo component – Rs.49.84 Crores + other clean cargo component – Rs.34.53]

(ix). For proposing the charges for foreign and coastal cargo handling, the amount of foreign and coastal cargo handled by PPT in the last 5 years has been considered. The average percentage composition of total cargo traffic for last 5 years is calculated at 65% foreign and 35% coastal cargo. This has been applied to estimate the amount of foreign and coastal cargo traffic in the future years.

(xii). Annual Revenue Requirement from Berth hire charges:

(a). Estimation of capital cost of the berth - Rs.183.07 Crores

(b). Estimation of operating cost of the berth - Rs.1.83 Crores

(c). ROCE at 16% – Rs.29.29

(c). Revenue Requirement for berth operation - Rs.31.12 Crores (Rs.1.83 crores + Rs. 29.29 crores)

3. The proposal of the PPT for upfront tariff for clean cargo handling and berth hire charges are as tabulated below:

Sl. No.	Cargo	Tariff	
		Foreign cargo	**Coastal cargo**
1.	**Containerised cargo** (a). Handling charges (b). Ground rent & Misc. charges	 Rs.3478 / TEU Rs.387 / TEU	 Rs.2087 / TEU Rs.231 / TEU
2.	**Iron and steel products** (a). Handling charges (b). Storage & Misc. charges	 Rs.196 / Tonne Rs.22 / Tonne	 Rs.118 / Tonne Rs.14 / Tonne
3.	Other clean cargo (Aluminum ingots, fertilizers, food grains, sugar & pig iron) (a). Handling charges (b). Storage & Misc. charges	 Rs.87 / Tonne Rs.10 / Tonne	 Rs.52 / Tonne Rs.6 / Tonne
		Foreign vessel	**Coastal vessel**
4.	Berth hire charges per GRT per hours	Rs.1.80	Rs.1.07

4.1. In accordance with the consultative procedure prescribed, a copy of the proposal from the PPT along with the enclosures was forwarded to the concerned users/ user organizations / bidders for their comments.

4.2. The comments received from the above users / bidders were forwarded to PPT as feedback information. The PPT has not responded till finalization of this case, inspite of reminders in this regard.

5. On a preliminary scrutiny of the proposal, the PPT was requested to furnish additional information / clarifications. After reminder, the PPT has responded. The queries raised by us and the response of PPT are tabulated below:

Sl. No.	Queries raised by us	Response of PPT
(i).	The proposal of the PPT is to fix upfront tariff for multi cargo including handling of containers. The PPT to confirm as to whether the basic features of the projects bid out subsequently at the Paradip Port, if any, would be similar to the features of the multipurpose terminal, for which the PPT has filed the instant proposal for fixation of upfront tariff.	It is not envisaged by PPT at this stage to develop any project with features similar to that of the multipurpose terminal. In line with the TAMP guide lines, the tariff caps to be prescribed now would be applicable to a Multipurpose Terminal with similar features if bid out by the Port for the next five years.
(ii).	The Length of the multipurpose berth proposed to be constructed is pegged at 450 meters. The PPT may furnish other physical features like width of the berth, back-up area, etc.	Width of the berth is 34.25 meters, with back up area of 12 hectares. Other features are indicated in the Table-2 of the Upfront Tariff Proposal. (Table – 2 of the proposal gives itemwise break-up of Project cost)

(iii).	The traffic handled during the last three years (2006-07, 2007-08 and 2008-09) in respect of containers, dry bulk cargo and break bulk cargo considered for arriving at the optimal capacity of the multipurpose cargo terminal, in the instant proposal, to be furnished. The details of number of vessels, average GRT of the vessels, average parcel size of vessel for the last three years (2006-07, 2007-08 and 2008-09) for each of the bulk cargo, break bulk cargo and containers proposed to be handled at the multipurpose berth to be furnished.	PPT has not relied on the past figures for adopting traffic related data for arriving at the optimal capacity of the multipurpose terminal since the figures are inadequate to give a true representation of the expected mix of the future traffic which is projected to materialize owing to rapid industrialization of the Port hinterland, in particular the mineral based industries. As such, the figures taken from the feasibility study are more realistic and thus adopted.
(iv).	Optimal terminal capacity:	
	(a). (i). The rationale behind considering the anticipated annual demand by the year 2014-15 to arrive at the percentage share of dry bulk cargo, break bulk cargo and containers for determination of optimal terminal capacity to be explained, when the tariff to be fixed will ordinarily operate for a period of 30 years in relation to the project.	The project is expected to be awarded to BOT operator by June 2010 and would entail another 36 months after the award for commencement of commercial operations. In light of the above implementation schedule, the anticipated annual demand by the year 2014-15 has been used to arrive at the percentage mix of iron and steel products and other clean cargo to be handled at the terminal.
	(ii). The anticipated annual demand for the dry bulk cargo by the year 2014-15 to be updated since it is based on a study reportedly undertaken way back in the year 2005.	The underlying assumptions and parameters which were earlier used to arrive at the annual demand figures are still valid and hence have been adopted.
	(b). The handling rate considered by the PPT for dry bulk cargo in determination of optimal terminal capacity is 10,000 tonnes per day. The PPT has reported that the parcel size of the vessels will be under 50,000 DWT. PPT to confirm that no vessel of less than 30,000 tonnes is expected.	The average GRT considered is 25,000 tonnes in the revised proposal.
	(c). The handling rate of 10,000 tonnes per day prescribed in the guidelines of 2008 is for handling food grains and fertilizers. The PPT is to clarify the rationale behind categorizing aluminium ingots and pig iron as bulk cargo for application of the handling rate of 10,000 tonnes per day in capacity calculation.	The terminal would be able to handle 10000 tonnes of aluminium ingots and pig iron per day and hence it has categorized these cargo with handling rate of 10,000 tonnes per day.
	(d). With reference to the share of containers considered for determination of the optimal capacity of the terminal, the basis for considering the conversion factor of 1 TEU = 15.5 tonnes to be furnished.	The value of 1 TEU has been pegged at 15.5 tonnes after ascertaining the density of the material that is likely to be containerized and be transported through the terminal.
	(e). The Formula for determination of optimal capacity given under Clause 3.1 of the guidelines of 2008 takes into account 365 days in a year. The PPT to clarify why it has considered 596 days for determination of optimal capacity of the terminal.	The proposed Multipurpose berth of 450 m length enables the BOT operator to accommodate two vessels of about 180 to 200mtr. LOA each. Hence this berth has the flexibility to handle one / two vessels at the same time depending on the LOA and draught making the terminal commercially more viable. Due to this special nature of the berth, the optimal capacity formula given in the TAMP guide line has been modified and number of available days has been increased

		from 365 to 596 . (detailed out in Table-3 of the Tariff proposal)
	(f). The optimal capacity of the terminal determined by the PPT flows from the traffic forecast of the cargo proposed to be handled at the terminal. However, this Authority is mandated as per Clause 3.3.2 of the tariff guidelines of 2008 to fix upfront tariff with reference to the optimal capacity of the terminal irrespective of any traffic forecast; and, the optimal capacity of the terminal should be determined, as stipulated in Clause 3.3.1 of the guidelines of 2008, taking into consideration; inter alia, the capacity of various components of a facility that may be required to be created and plant and machinery to be provided. The PPT envisages that containers will be handled in a mechanised form along with the other cargo in the multipurpose berth. That being so, optimal capacity of the berth determined solely based on Clause 3.1. under Annex – V of the 2008 guidelines does not appear to be correct. While reviewing the capacity, the norms for cargo handling rate given in Table – 1 of Annex – V of the 2008 guidelines may have to be adjusted suitably if the capacity of the handling equipments envisaged varies from the capacity of the equipments prescribed in clause 4.3. of the Annex V of the 2008 guidelines.	The Port has used the concept of demand only for arriving at the percentage mix of the expected clean cargo at the terminal. After ascertaining the percentage mix of 22%, 32% and 46% for iron and steel, other clean cargo and containers respectively, PPT has followed TAMP guidelines given in Annexure V for determination of optimal capacity as this is basically a Multipurpose berth with provision to handle containers.
	(g). The PPT to furnish optimum stake yard capacity for storage of containers and determine the capacity of the container component of the terminal following the formulae prescribed in Annex – I of 2008 guidelines.	As explained above, the optimal capacity formula given at Annexure-5 would apply in the instant case as this is a Multipurpose berth and not a dedicated container terminal.
(v).	<u>Capital Cost estimates:</u> Since the optimal terminal capacity of the proposed multipurpose berth, may have to be reviewed for reasons given above, consequential modifications may be carried out in the estimated capital cost. PPT is, however, to furnish / clarify the following points in respect of capital cost estimates furnished by it:	
	(a). <u>Civil Construction Cost</u> (Excluding Berth) (i). PPT to explain the rationale behind apportioning the civil construction equally to the container component and other cargo component.	The civil cost construction cost is equally apportioned between container component and other clean cargo component envisaging the fact that the berth length of 450 m would allow a container vessel along with other clean cargo vessel to be handled at the same time.
	(ii). Out of the total estimated amount of Rs. 118.96 crores for construction of berth, the PPT has allocated 10% of Rs. 118.96 Crores for berth apron and	25% of the berth cost has been apportioned towards berth apron & approaches and balance 75% towards construction of berth proper . This apportionment has been done in

	approach. The basis for considering a part of the estimated total berth cost under the civil cost to be furnished.	line with earlier proposals for BOT projects approved by TAMP.
	(iii). The PPT has reported that the estimation of civil construction cost and handling equipment cost are as estimated by the consultants in the Feasibility Report. The Feasibility Report claims that the estimates are based on current rates of material. The PPT to confirm that the estimates of civil construction cost and handling equipment cost reflect the market rates prevailing in the year 2009.	The Feasibility Report was finalized in April 2009 and it is confirmed that the estimates of civil construction cost and handling equipment cost reflect the market rates prevailing in the year 2009.
	(b). <u>Handling Equipment cost:</u> (i). The number of container handling equipments considered in the estimation of equipment cost may be justified with reference to the norms specified in the guidelines for container handling and the share of capacity apportioned to container handling.	After re-evaluating the requirements considering the container volume to be handled only 3 mobile harbour crane have now been proposed in the revised proposal
	(ii). The PPT to furnish budgetary quotations in support of the unit rate considered in the estimation of equipment cost. PPT to confirm whether the applicable taxes and duties are included in the estimated unit cost.	The equipment cost is based on the feasibility study report prepared by the consultant in April,2009 where in market rates have been considered by them.
	(iii). The 2008 guidelines stipulate provision of 3 numbers of level luffing wharf cranes of 20 tonne capacity with grab / hook attachments, among other handling equipments. However, the PPT has envisaged provision of 3 numbers Mobile Harbour Cranes (MHC) instead of wharf cranes. Though the capacity of the MHC is not indicated in the proposal, it is a common knowledge that MHCs are of higher capacity. That being so, it is a mismatched if productivity levels prescribed in the guidelines for determining optimal capacity is retained unadjusted for higher capacity MHCs.	As replied at Sl.1 above, the revised tariff proposal for the equipments now proposed to be used.
	(iv). PPT to justify the provision of 1 number crawler crane (which is not listed in the normative equipments) apart from 3 numbers Mobile Harbour Cranes and the capacity calculation should recognize the performance of this crane also.	After evaluating the requirements of this Multipurpose terminal which has provision for container handling, 3nos. of mobile harbour crane and 1 no. crawler crane have been considered in the revised proposal.
	(v). In addition to 3 numbers level luffing wharf cranes, the guidelines stipulate normative equipment level for multipurpose cargo berth (4 Nos Fork lift Truck of 5 tonnes each, 2 nos Fork lift Truck of 10 tonnes each, 3 nos of Pay Loaders of 10 tonne each). The reasons for not considering other equipments in the proposal to be explained.	The equipments taken are as per the feasibility report for the particular terminal. (Two number RMQC earlier considered by PPT has been deleted from the equipment mix in the revised proposal
	(vi). The estimated civil construction cost includes expenditure towards rail	The rubber tyre gantry cranes have been provided and will serve the purpose.

	connectivity. However, no provision is made for Rail Mounted Gantry Crane (RMGC) prescribed in the guidelines for loading containers on the rakes. IT system cost is also not taken into account in the estimation of capital cost.	
(vi).	Operating Cost estimates (Excluding Berth): (a). The estimation of fuel cost in addition to power cost for the Harbour Mobile Cranes to be justified. In this regard, consumption of fuel at 12 liters per hour per crane considered in the estimates may be justified.	Norms (Table 3 of Appendix V) for power prescribe 100 units/Hour/Crane and the same has been used to arrive at the power consumed by Mobile harbour cranes. The fuel consumption for mobile harbour crane has been revised to 40 liters/hour.
	(b). PPT to furnish the basis for considering the consumption of fuel at 12 liters per hour per crane for crawler crane.	This consumption has been considered for a 20 to 25 ton crane.
	(c). (i). PPT to furnish the basis for considering 12.25 hectares area for estimation of license fee for land and other port assets. Reference in this regard made in the feasibility Report, if any, may be indicated.	12.25 hectares is the storage area for container and other clean cargo and the same has been considered for calculation of license fee for land. 9.40 hectares out of 12.25 hectares have been allotted to storage of containers and the calculation for same has been made in Pg 91 of Feasibility Report.
	(ii). The area of 9.40 hectares and 2.85 hectares proposed for container component and clean cargo component respectively may be justified with reference to the (to be reviewed) optimal capacity of the multi purpose berth and the dwell time of different types of commodities to be handled.	
(vii).	Tariff: (a). The tariff for handling containers; iron and steel products and other bulk cargo proposed by PPT is derived by the port based on the estimated capacity of 5 Million tonnes per annum. Since the estimated capacity may have to be reviewed by the PPT, for the reasons stated in the earlier part of this communication, the PPT to review the proposed tariff for the respective cargo items.	As per the revised proposal, the tariff for handling containers, iron and steel products and other bulk cargo is based on the expected annual demand by 2014-2015 for the respective cargo items.
	(b). The PPT has applied the concessional coastal tariff for ground rent and miscellaneous charges. It may be noted that the Government policy on concessional coastal tariff is not applicable for ground rent and miscellaneous charges.	PPT has taken note of the observation and has reworked the ground rent and miscellaneous charges based on the same.
(viii).	Formulation of upfront tariff for berth hire: (a). Capital cost of the berth: (i). The PPT to furnish the basis for allocation of 90% of the berth construction cost to the capital cost of the berth.	25% of the berth cost has been apportioned towards berth apron & approaches and balance 75% towards construction of berth proper . This apportionment has been done in line with earlier proposals for BOT projects approved by TAMP.
	(ii). PPT to confirm whether the rates considered in the estimation of berth construction cost are closer to 2009 rates.	Yes
	(iii). The total capital cost of the berth on which the PPT has considered return for computing ARR includes Rs. 58.20 Crores being the estimated cost of capital dredging. It is seen from the Feasibility	As per TAMP guidelines, Berth facing dredging has to be included for determination of the berth hire charges.

<table>
<tr><td></td><td>Report (Refer Section 15.2.1) that the total expense of Rs. 58.20 Crores towards capital dredging is to be borne by the PPT. That being so, the PPT to exclude the said amount from the estimated capital cost for construction of berth, as vessel related charges leviable by the port will account for this expenditure.</td><td></td></tr>
<tr><td></td><td>(iv). The said section of 15.2.1. further mentions that the maintenance dredging will be borne by the BOT operator. The itemized break-up of the project cost furnished at table 15-3 of the feasibility report does not appear to include the expenditure on account of maintenance dredging to be borne by the operator.</td><td>Maintenance dredging including expenditure thereof is the responsibility of the Port.</td></tr>
<tr><td></td><td>(v). The estimated capital expenditure towards contingencies and engineering project management at 5.5% included in the estimated capital cost of the berth to be justified with reasons for quantifying the same at 5.5%.</td><td>The provision of 5% for contingency is as per TAMP guidelines and has been done in line with earlier proposals for BOT projects approved by TAMP.</td></tr>
<tr><td></td><td>(b). Operating Cost of the Berth and Annual Revenue Requirement:
The estimated Operating Cost of the Berth and the Annual Revenue Requirement to be modified suitably adjusting the capital cost of the berth keeping in view our observation at point (viii) (A) (iii) & (iv) above.</td><td>Operating cost of the berth an ARR as per the revised proposal
<table><tr><td>Cost of Construction of Berth(75% of 118.96)</td><td>89.22</td></tr><tr><td>Capital Dredging</td><td>58.2</td></tr><tr><td>Total of above</td><td>147.42</td></tr><tr><td>Contingency@5%</td><td>7.37</td></tr><tr><td>Miscellaneous@5%</td><td>7.73</td></tr><tr><td>Capital Cost of the Berth</td><td>162.53</td></tr><tr><td>Operating cost of the Berth@1% of capital cost of the Berth</td><td>1.63</td></tr><tr><td>Revenue Requirement from Berth (162.53*0.16+1.63)</td><td>27.63</td></tr></table></td></tr>
<tr><td></td><td>(c). Calculation of Berth Hire:

(i). PPT to furnish the basis for the assumption made by the PPT regarding the average GRT of containerized cargo ship (15,000 GRT), iron and steel products ship (17,000 GRT) and the bulk cargo ship (9000 GRT).</td><td>The average GRT considered is 25,000 tons in the revised proposal.</td></tr>
<tr><td></td><td>(ii). The calculation of berth hire furnished by PPT is not found to be in line with Clause 4.4. of the guidelines of 2008. The PPT is requested to calculate the berth hire in the format furnished.</td><td>In the revised proposal, the PPT has furnished revised calculations for berth hire charges according to which the berth hire for foreign vessels will be Rs. 0.80 per GRT per hour and Rs. 0.48 per GRT per hour</td></tr>
<tr><td>(ix).</td><td>Scale of Rates

(a). The proposed Scale of Rates for levy of berth hire charges, cargo handling charges and storage and miscellaneous charges to be modified suitably considering the observations in the foregoing paragraphs as far as their effect on the estimated optimal capacity, capital cost of the berth, etc.,</td><td>Necessary modifications have been carryout in the revised Tariff proposal.</td></tr>
<tr><td></td><td>(b). Container being the predominant traffic, it may be necessary to prescribe a separate</td><td>This is basically a Multipurpose Terminal with provision for handling containers. Accordingly,</td></tr>
</table>

	schedule in the Scale of Rate containing handling rates for 20', 40', coastal, foreign, etc., classification. Reefer container related charges may have to be prescribed. Conditions relating to container handling and storage, as available in the Scale of Rates of other container handling terminals in the major ports should also be included.	the scale of rates have been prepared.
	(c). In the note under Section 3 the following words may be added at the end of the proposed note: "and all other miscellaneous charges not specifically prescribed in the Scale of Rates".	This is incorporated in the scale of rates.
	(d). While arriving at the upfront storage charge, the factor of dwell time of import / export cargo at the storage area does not seem to have been considered. The PPT may review and re-work the storage charges taking into consideration the stay of cargo beyond the free period to meet the expected revenue requirement from this tariff item.	Please refer to the revised tariff proposal for the storage charges & other misc. charges.
	(e). The expected average dwell time of each of the cargo items may be indicated. PPT to furnish a calculation to show that at the proposed storage rate (beyond the free period), the expected revenue requirement from the storage charge will be realized by the operator.	The free time for import & export cargo have been indicated in the revised tariff proposal.

6. A joint hearing in the case in reference was held on 9 December 2009 at the premises of the PPT in Bhubaneshwar. The PPT made a slide presentation highlighting the salient points of its proposal. At the joint hearing, PPT and the concerned users / organisation bodies and prospective applicants have made their submissions.

7. As decided at the joint hearing, the PPT was advised, inter alia, to elaborately analyze with necessary facts and figures on some points. The PPT has responded. The points raised by this Authority at the joint hearing and reply furnished by the PPT are tabulated below:

Sl. No.	Points raised by us	Response of PPT
(i).	Capacity determination and proposed deviations from the guidelines.	The tariff proposal is basically for a multi-purpose berth for handling clean cargo with provision to handle containers also. Since this is not a dedicated container terminal the port has adopted the guidelines provided for a multi-purpose berth while estimating the optimal capacity. Further, the berth length of 450 mtrs would give flexibility to the BOT operator to handle one/two vessels simultaneously. Due to this feature of simultaneous handling of two vessels the no. of days considered while determining the optimal capacity has been taken as 596 instead of 365 days. The calculations are detailed out in the revised tariff proposal furnished.
(ii).	Justification for dedicated and capital intensive container handling equipment in the light of low volumes of containers projected.	The equipment mix has now been revised & the Rail Mounted Quay Crane have been deleted.

Sl. No.	Points raised by us	Response of PPT
(iii).	Justification for the cargo and vessel mix under foreign and coastal categories.	The vessel mix for foreign & costal cargo has now been considered as 90% & 10% respectively.

8.1 While responding to the queries raised by this Authority and to the decisions taken at the joint hearing, the PPT filed a revised proposal for fixation of upfront tariff to handle clean cargo including containers.

8.2. The response of the PPT to the queries raised by this Authority and the port's response to the decisions taken at the joint hearing were found to be incomplete. The proposed deviations from the norms prescribed in the tariff guidelines of February 2008 were not adequately explained by the PPT.

8.3. The proposed deviations from the norms prescribed in the tariff guidelines of 2008 and the deficiencies in the determination of optimal capacity of the proposed multipurpose berth, the mismatch in the productivity levels considered by the PPT and the higher capacity of the equipments proposed to be considered, determination of storage charges, draft Scale of Rates, etc., were discussed point by point in an officer level meeting with the representatives of the PPT on 22 December 2009.

8.4. The PPT requested that more time would be necessary to comprehensively address the issues involved. The PPT was requested to furnish its response with comprehensive analysis and necessary justifications.

8.5. In response, the PPT has filed an amended proposal for fixation of upfront tariff to handle clean cargo including containers, followed by clarifications vide its letters dated 8 January 2010 and e-mails dated 11 January 2010 and 13 January 2010.

9.1. The salient features of the amended proposal are summarized below:

(a). The berth of 450 mtrs length has been considered for two-vessel handling.

(b). The TEU rate for containerized cargo has been taken as 12 tonnes.

(c). The foreign and coastal mix has been taken as 90%:10% respectively. Likewise, the cargo / container mix for foreign cargo and coastal cargo has been taken at 90% : 10%.

(d). The power component of operating cost is limited to lighting and illumination in the terminal and yard areas.

(e). <u>Optimal capacity of the terminal:</u>

I. <u>Percentage share of cargo:</u>

(i). The multipurpose berth envisages handling containers along with other cargo.

(ii). It is envisaged that two ships will be berthed at the same time. The ship sizes predominantly will be under 50,000 DWT. Therefore, norms mentioned under Clause 3.1 of Annex – V of upfront tariff guidelines is adopted for determination of capacity.

(iii). (a). The percentage share of different cargo varieties are estimated as given below, based on the feasibility and project report details:

(i).	Iron & Steel products	- 11.20 lakh tones
(ii).	Other cargo (Aluminum ingots, pig iron, furnished fertilizers, food grains and sugar)	- 16.30 lakh tonnes
(iii).	Containerized cargo	- 02.00 lakh TEUs

(b). Based on the above details the percentage share of cargo is worked out as given below:

(i). Iron & Steel Products - 21.70% (S1)

(ii). Other cargo - 31.70% (S2)

(iii). Containerized cargo - 46.60% (S3)

II. Handling Rates:

(i). Two number of Harbour Mobile Cranes (HMC) of 100 tonnes capacity each are for container handling. One number of HMC of 100 tonnes capacity is for handling other cargo.

(ii). (a). Upfront tariff guidelines stipulate handling rate of 4000 tonnes per day for iron and steel products and 10,000 tonnes per day for food grains, minerals, fertilizers, etc., using 3 number of 20 tonnes level luffing cranes.

(b). The same handling rates have also been adopted by taking 2 number of 60 tonnes cranes in earlier TAMP order in February 2009. This handling rate is also realistic for one number HMC of 100 tonnes based on the experience of the PPT where such crane has been installed recently for handling multipurpose cargo. Thus, the handling rate for Iron & Steel products and other cargo by handling with the aid of one HMC and other ancillary equipment are considered as follows:

(i). Handling rate for iron & Steel (P1) = 4000 tonnes per day

(ii). Handling rate for other cargo (P2) = 10000 tonnes per day

(iii). With regard to the containers, the handling rate for 2 number HMC with other ancillary equipment is calculated following the formula as given below:

Handling rate per day (P3)	=	Number of cranes	X	Average moves per hour	X	Working hours per day	X	TEU factor of 1.3

P3 = 2HMCX 16 moves X 20 hours X 1.3
P3 = 832 TEUs per day

III. Optimal capacity of the berth:

The optimal capacity of the berth is calculated as shown below:
Optimal capacity

= 0.7 {(S1/100 X P1)+(S2/100 XP2) +(S3/100XP3)} X 365 X 2

= 0.7 {(21.70/100 X 4000)+(31.70/100 X10000) + (46.60/100X832X12)} X 365 X 2

= 44.40 lakh tonnes per annum.

(f). Estimation of capital cost (excluding berth):

Capital cost is estimated for both container component as well as other cargo component separately. Civil Cost is divided into two equal components for containers and other cargo handling. Equipment cost is distributed into two components according to their requirements. As per guidelines (Section 4.1, Annexure V) the capital cost comprises of the following:

S. No.	Group	Components	Estimated Cost (Rs Crore)
1	Civil Construction Cost	Berth apron & approach (25% of the Rs.118.96)	29.74
		Land Preparation Cost	0.15
		Utilities	3.3
		Rail Connectivity	20.8
		Buildings	6.28
		Stockyard	15
		Total	**75.27**
		Containerized Cargo component(50% of cost)	**37.64**
		Other clean cargo component(50% of cost)	**37.64**
2	Other Clean Cargo and Containerized cargo handling equipment		
		Container component	**83.36**
		100 Ton Mobile Harbour Cranes(2)	60
		RTGC(2)	15
		TT(12)	4.56
		Reach Stacker(2)	3.8
		Multipurpose component	**32.55**
		100 Ton Mobile Harbour Cranes(1)	30
		Fork Lift Trucks 10 Tons(2)	0.7
		Fork Lift Trucks 5 Tons(4)	0.8
		Payloaders(3)	1.05
		Total	**115.91**
3	Miscellaneous (5% of above)	**Container component**	**6.05**
		Multipurpose component	**3.51**
	Capital Cost excluding Berth for containerized cargo component		**127.04**
	Capital Cost excluding Berth for other clean cargo component		**73.69**

Two tractor trailers have been allotted to each of the six machines (two mobile harbour cranes, two reach stackers and two RTGCs)

Transit sheds are not envisaged to be constructed for the Multipurpose Berth. Considering the use of the HMCs and nature of cargo to be handled in the Multipurpose Berth the port proposes to have obstruction free open spaces and not transit sheds.

Provision of Rail connectivity has been specifically kept in the scope of work. Road connectivity adjacent to the Multipurpose Berth presently exists and development of internal roads in the backup areas is covered within the development cost of stack yards.

(g). Estimation of operating cost (excluding berth):

Using the TAMP guidelines (section 5.0 of Appendix V), the operating cost for project component excluding the berth is calculated as following:

S. No.	Group	Norm	Components	Estimated Cost (Rs Crore)
1	a) Power	2.4 lakh units/annum/hectare	Container component(2.4*4.5*6.5/100)	0.7
			Multipurpose component(2.4*4.5*6.5/100)	0.7
			Note: *Cost of one unit of power = Rs 6.50*	
	b) Fuel		**Container component**	**6.02**
		100 litres/hour for 4000 hours/year	100 T Mobile Harbour Crane (2)	3.2
		20 litres/hour for 4000 hours/year	RTGC(2)	0.64
		20 litres/hour for 4000 hours/year	Reach Stacker(2)	0.64
		8 litres/hour for 4000 hours/year	TTs(12)	1.54
			Multipurpose component	**2.94**
		100 litres/hour for 4000 hours/year	100 T Mobile Harbour Crane (1)	1.60
		10 litres/hour for 4000 hours/year	Fork Lift Truck 10 Tons(2)	0.32
		7 litres/hour for 4000 hours/year	Fork Lift Truck 5 Tons(4)	0.45
		12 litres/hour for 4000 hours/year	Payloaders(3)	0.58
			Note: *Cost of one litre of fuel = Rs 40*	
2	a) Repair and Maintenance of civil assets	1% of cost of all civil assets	Container component	0.38
			Multipurpose component	0.38
	b) Repair and Maintenance of mechanical and electrical equipments including spares	5% of cost	Container component	4.17
			Multipurpose component	1.63
3	Insurance	1% of Gross Fixed Assets Value	Container component	1.27
			Multipurpose component	0.74
4	Depreciation	As per norms prescribed in companies act or any norms prescribed in the license agreement whichever is higher • 3.34% for civil structures • 10.34% for equipment	Container component	9.88
			Multipurpose component	4.62
5	License Fee(rentals for land and other port assets)	Lease Rental = Rs 600/100 sq m pm	Container component	0.32
			Multipurpose component	0.32
6	Other Expenses	5 % of Gross Fixed Assets Value	Container component	6.35
			Multipurpose component	3.68
	Total operating cost of containerized cargo component			**29.09**
	Total operating cost of other clean cargo component			**15.02**

The fuel consumption of mobile harbour crane is as per PPT's experience with such cranes used for port operations. The fuel consumptions for RTGCs, Reach Stackers and

Tractor Trailers is as per information collected from Tuticorin Port Trust for such equipment.

(h). Estimation of Revenue Requirement:

		(Rs. in Crores)
(i).	Container Component (Operating Cost + 16% ROCE)	49.41
(ii).	Other cargo component (Operating Cost + 16% ROCE)	26.81

(i). Apportionment of Revenue Requirement:

Container Component

(i).	Handling Charges	-	90%	-	44.47
(ii).	Ground Rent	-	07%	-	03.46
(iii).	Miscellaneous Charges	03%		-	01.48
					49.41

Other Cargo Component

(i).	Handling Charges	-	90%	-	24.13
(ii).	Storage Charges	-	05%	-	01.34
(iii).	Miscellaneous Charges	05%		-	01.34
					26.81

(j). Estimation of capital cost of Berth:

(a).	Berth Construction cost (75% of Rs. 118.96Crores)	89.22
(b).	Dredging Cost	58.20
		147.42
(c).	5% contingencies	07.37
		154.79
(d).	5% Miscellaneous	7.74
	Total Capital cost	162.53

(k). Estimations of operating cost (Berth)

(a).	R&M of Civil Cost (1% of Rs.162.53 Crores)	1.63
(b).	Depreciation (3.34% of Rs. 162.53Crores)	5.43
(c).	Insurance (1% of Rs.162.53 Crores)	1.63
	Total Operating cost of Berth	8.68

(l). Revenue Requirement from Berth Operations:

Operating cost	8.68
ROCE at 16%	26.00
	34.68

9.2. Based on the above details, the PPT has proposed the following tariff for the proposed multipurpose Berth:

S. No.	Cargo	Tariff	
		Foreign Cargo	Coastal Cargo
1.	Containerized cargo		
	Handling charges	Rs 2686/TEU	Rs 1612/TEU
	Ground rent	Rs 215/TEU	Rs 215/TEU
	Miscellaneous charges	Rs 86/TEU	Rs 86/TEU
2.	Iron and steel products		
	Handling charges	Rs 165/Ton	Rs 99/Ton
	Storage charges	Rs 6/Ton	Rs 6/Ton
	Miscellaneous charges	Rs 6/Ton	Rs 6/Ton

S. No.	Cargo	Tariff	
3.	Other clean cargo(Aluminum ingots, fertilizers, foodgrains, sugar and pig iron)		
	Handling charges	Rs 66/Ton	Rs 40/Ton
	Storage charges	Rs 6/Ton	Rs 6/Ton
	Miscellaneous charges	Rs 6/Ton	Rs 6/Ton
		Foreign Vessels	**Coastal Vessels**
4.	Berth hire charges per GRT per hour	Rs 0.83	Rs 0.50

9.3. The PPT has also furnished a draft of the Scale of Rates to operate the proposed multipurpose Berth.

10. The proceedings relating to consultations in this case are available on the records at the office of this Authority. An except 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

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

(i). The proposal is to fix upfront tariff cap for multipurpose cargo handling berth to be developed at the Paradip Port Trust (PPT) under Public Private Participation (PPP). The proposal is based on the guidelines for upfront tariff fixation issued by the (then) Ministry of Shipping, Road Transport & Highways (MSRTH) in February 2008.

It has already been clarified to the PPT that as per Clause 2.2 of the tariff guidelines for upfront tariff setting for PPP Projects at Major Port Trusts of February 2008, the tariff caps to be prescribed now would not only be applicable to the multipurpose cargo terminal at the southern point of the port but would also be applicable to all the projects bid out subsequently for identical cargoes at the PPT during the next five years. The PPT has confirmed that the tariff caps to be prescribed now would be applicable to a multipurpose terminal with similar features if bid out by the PPT in the next five years.

(ii). Commodities like iron and steel products, other cargo like aluminum ingots, pig iron, finished fertilizers, food grains, sugar and containers are expected to be handled at the proposed multipurpose cargo berth. The percentage of share of cargo is estimated at 21.7%, 31.70% and 46.60%, respectively.

(iii). Subsequent to the joint hearing, the PPT has amended its original proposal, inter alia, to reduce the capacity from 49.80 Lakhs tonnes to 44.40 lakh tonnes and revise the capital cost of the project from Rs. 425.00 Crores to Rs. 363.27 Crores. The amended proposal filed by PPT vide its dated 26 December 2009 alongwith information / clarifications furnished during the processing of the case is considered in this analysis.

(iv). The PPT has proposed deviations from the guidelines issued for upfront tariff setting vide Notification No. TAMP/52/2007-Misc., dated 26 February 2008 in some of the parameters and estimates which are discussed below:

(v). <u>Optimal Terminal Capacity:</u>

(i). The optimal capacity of a multipurpose terminal is to be determined taking into consideration the handling rate of different types of cargo and the percentage share of each type of cargo considered in the cargo mix, as per the formula prescribed for determination of optimal capacity in the upfront tariff guidelines of February, 2008 for multipurpose berth.

(ii). Since the cargo mix considered by PPT includes containers, the PPT has adopted a conversion rate of 1 TEU = 12 tonnes to fit into the formula prescribed for

determination of optimal capacity. From the statistics of container traffic at major ports published by the Indian Ports Association (IPA), for a period of 5 years from 2001-02 to 2005-06 the conversion rate works out to 13 tonnes per TEU.

(iii). For the purpose of determination of capacity of the terminal the PPT has followed a mix of formula, which partly relies upon the formula prescribed for determination of quay capacity of a standard container terminal and partly the formula for calculating the capacity of a standard multipurpose berth. Since the port has proposed two berth configuration, and confirmed that a berth will be for containers and the other will handle general cargo, the capacity can be determined individually for container and other category of cargo by adopting the formula given in the guideline without resorting to a mixed approach.

The PPT has worked out the per-day output at 832 TEUs taking into consideration 2 numbers HMC of 100 tonnes capacity, an average of 16 moves per hour, 20 working hours per day and the TEU factor of 1.3.

Since 70% of the maximum quay capacity of a standard container terminal is taken as optimum capacity, in the formula prescribed for determination of optimum quay capacity of a container terminal, there does not appear any need to reduce the working time from 24 hrs to 20 hrs considered by the PPT.

The formula prescribes 25 moves per hour when the gantry cranes are deployed, whereas the PPT has envisaged to deploy mobile cranes with productivity at 16 moves per hr. At 16 moves per mobile crane per hour and taking into account the TEU factor of 1.3, the per day container output works out to around 500 TEUs for 24 hrs. In tonnage terms, the per day output per mobile crane works out to 6500 tonnes which is comparable to the per day output for iron & steel products considered in this analysis, which is discussed in the later paragraph of this analysis.

Considering deployment of two HMCs for container handling as claimed by the port, the container handling capacity works out to 255091 TEUs (0.7 x 2 x 16 x 1.3 x 24 x 365) or say 2.55 lakh TEUs by applying the formula given in the guidelines for determining capacity of container terminals. If it is to be reported in terms of Million tonnes by adopting conversion factor of ITEU = 13 tonnes, then the container handling capacity will be 3.31 million tonnes. Since tariff computation proceeds based on TEUs, the conversion factor of 1 TEU = 13 tonnes shown above will not affect the outcome of this analysis.

For container handling facilities, the PPT has considered 4.47 hectares of back-up area. No break up for the area is given for stacking of containers and other ancillary facilities. In the upfront tariff fixation for the container terminal at the JNPT and NMPT, the concerned ports considered the ground slots of 286 TEUs and 360 TEUs per hectare respectively to determine optimal yard capacity on the ground that the ground slots of 720 TEUs per hectare prescribed in the upfront tariff guidelines is not feasible. Even if the higher value of 360 TEUs per hectare is considered, the optimal yard capacity works out to 2,61,789 TEUs. Thus the quay capacity will determine the optimal container handling capacity which will be 255091 TEUs.

(iv) (a). The output norm of 10,000 tonnes per day prescribed in the tariff guidelines of February 2008 is for handling food grains and fertilisers by deploying 3 numbers of 20 T electric level buffing cranes. The consortium of VOTL and EBTL has observed that categorisation of aluminum ingots and pig iron under bulk cargo may not be correct. In a related query in this regard posed to PPT, the port has clarified that the proposed multipurpose berth would be able to handle 10,000 tonnes of aluminium ingots and pig iron per day.

(b). The output norm of 10,000 tonnes per day and 4000 tonnes per day for iron and steel products is with reference to the operation of 3 numbers level luffing wharf cranes of 20 tonnes capacity each. Since the PPT has envisaged that the general cargo handling facility would operate with one HMC of 100 tonnes capacity, the normative handling rate prescribed in the guidelines of 2008 needs to be updated. Incidentally, in the proceedings concluded recently relating to fixation of ceiling rate for operation of HMC of 100 tonne capacity at PPT, it was reported by the Port that one of the three HMCs operating at the same port, which is reportedly 100 tonne capacity has performed in the range of 11319 tonnes to 12451 tonnes per day.

With reference to the handling rates for bulk cargo and iron and steel cargo, this Authority deliberated the issue of productivity norm for HMCs in the earlier proceedings relating to the PPT cited above. Keeping in view the higher handling capacity of HMC as compared to the aggregate capacity of wharf cranes and in the absence of any norms prescribed in the guidelines, it was decided to reckon with 25% increase over the handling rate of 10,000 tonnes per day. Since the HMC may handle iron and steel products without grabs, it was decided to reckon with 50% increase over the handling rate prescribed for iron and steel cargo. Based on the earlier decision, the handling rate of 12500 tonnes per day for bulk cargo and 6000 tonnes per date for iron and steel products is applied in this case also.

(v). (a). The terminal is envisaged to handle containers alongwith other cargo. The PPT has stated that two HMCs will handle containers and one HMC is intended for handling other cargo. The PPT has proposed to deploy all the 3 MHCs with a uniform capacity of 100 T. It is a common knowledge that a 100 T crane is not generally required for container operations, given the load factor of even a 40' container. It is relevant here to mention that the mobile cranes have flexibility, unlike quay cranes, having scope for handling containers and other cargos. The spare capacity of mobile cranes, which are earmarked to handle containers, can be utilised to handle other cargo. Significantly, the PPT has declared in the joint hearing that the facility is mainly envisaged to handle clean cargo. In view of the flexibility in operation and in order to promote standardisation, this Authority is inclined to consider deployment of 3 nos of 100 T mobile harbour cranes in this excercise. But, the higher level of capacity available in the handling equipment, which is expected to be channelised towards handling general cargo, should be reflected in the optimal capacity calculation of the general cargo handling facility. Since the two cranes earmarked for container operations could be at times diverted to handle general cargo, the optimal capacity otherwise determined as per the standard formula, can be increased atleast by 10%.

(b). Considering the share of iron and steel and other clean cargo at 21.70% and 31.70% in the overall cargo mix estimated by the PPT, the share of iron and steel and other clean cargo in the earmarked berth works out to 40.60% and 59.40% respectively. In that case, the cargo handling capacity works out to 25,19,485 tonnes [0.7(6000 x 40.60% + 12500 x 59.40%) x 365]. After allowing an increase of 10% for the reasons given above, the total capacity for iron and steel products and other cargo put together works out to 27,71,433 tonnes. The share of iron and steel products will be 11,25,202 tonnes and other clean cargo will be 16,46,231 tonnes.

(vi). Capital cost

The amended estimate of capital cost of the multipurpose cargo berth is reported at Rs.363.27 Crores of which an amount of Rs.200.74 Crores is allocable to cargo / container handling service and a sum of Rs.162.53 Crores is allocable to berthing activity. The estimated capital cost is discussed as herein under:

Civil construction cost

(a). Cargo/container handling activity:

As per the upfront tariff guidelines, the capital cost for civil structure includes Berth apron and approach, storage yard, transit sheds, Roads, rail tracks, Buildings, water supply, sewage etc., The cost to be considered are as per the estimates by the port trust. The estimated civil cost generally adheres to the norms stipulated in the guidelines except for transit sheds, roads and berth apron and approach. Capital cost does not include estimate for transit sheds and roads, and the PPT has allocated 25% of the berth construction cost towards berth apron and approach.

As regards transit sheds, the PPT has clarified that considering the use of HMCs and nature of cargo to be handled in the multipurpose berth the port proposes to have obstruction free open spaces and not transit shed. With reference to roads, the port has clarified that road connectivity adjacent to the multipurpose berth presently exists and development of internal roads in the back up area is covered within the development cost of stack yards.

With reference to the apportionment of a part of construction cost to berth apron and approach, the PPT has clarified that it has followed the approach adopted by it in fixation of upfront tariff for iron ore terminal and coal terminal at the PPT in the year 2008 vide tariff Order dated 14.07.2008. The civil construction cost is apportioned equally between the container component and other cargo component envisaging the position that the total berth length of 450 meters would allow a container vessel along with other cargo vessel to be handled simultaneously at the same time, as clarified by the PPT. As reported in the Project Report, the cost estimates for various heads are said to have been worked out based on current rates of material. Based on the clarifications furnished by the PPT, and recognizing that none of the users / bidders have raised any pointed objection with reference to this deviation, the civil construction cost as estimated by the PPT is relied upon.

(b). Berthing activity:

(i). As per the upfront tariff guidelines, the capital cost of berth hire services includes cost of construction of berth and cost of dredging, if any, carried out alongside the berth. The cost to be considered are as per the estimates by the port trust.

(ii). The berth length of the multipurpose cargo berth is envisaged to be 450 meters. The estimated capital cost of berth includes capital dredging cost of Rs.58.20 Crores. To a query raised with respect to the capital dredging cost, the PPT has clarified that the dredging envisaged is facing the berth and accordingly the port has considered the capital dredging cost for determination of berth hire charges in line with tariff guidelines of 2008. Replying upon the position clarified by PPT, the cost of dredging is considered in this analysis, as estimated by the PPT.

(iii). 25% of the estimated cost of construction of the berth having been allocated to the berth apron and approach in the estimation of civil construction cost for cargo / container handling activity, as explained in the earlier part of this analysis, the PPT has considered the remaining 75% of the estimated cost of construction of

the berth for berthing activity as per the approach adopted by it in fixation of upfront tariff for iron ore terminal and coal terminal at the PPT in the year 2008.

(iv). The other two items considered by the PPT in the estimation of capital cost for Berthing Services are 5% and 5.25% as contingencies & engineering project management and miscellaneous respectively. The 5% being in the nature of contingency, is considered.

With reference to 5.25% considered by PPT towards miscellaneous, though the norm prescribed in the guidelines does not specifically provide for this cost item for berth cost, it has to be noted that the guidelines already stipulated norm for estimating Miscellaneous cost at 5% of the civil and equipment cost for calculation of capital cost to account for interest during construction, working capital, etc. Considering this norm to estimation of cost of construction of berth, additional miscellaneous provision estimated by PPT at 5.25% is moderated in line with the norm and considered in this analysis.

Equipment cost:

(a). For Cargo component:

As per the guidelines, the equipment cost is to be estimated for the list of equipment prescribed therein. The list of equipment suggested in the guidelines includes 3 numbers of level buffing wharf crane of 20 tonne capacity with grab / hook attachments. As brought out earlier, the PPT has envisaged that the multipurpose cargo berth would operate with 1 HMC of 100 tonne capacity to handle bulk cargo. The handling rates considered by the PPT as well as capacity of the facility have been updated, as explained earlier. Therefore, the proposal of the PPT to recognize deployment of one HMC of 100 tonne capacity is accepted.

The list of equipment for estimation of capital cost also includes 4 numbers Fork Lift Truck of 5 tonnes capacity, 2 numbers Fork Lift Trucks of 10 tonne capacity and 3 number pay loaders of 10 tonne capacity. The initial proposal dated 22 October 2009 did not consider cost of these items. Subsequently, the port has revisited the proposal and included the above items of required numbers as prescribed in the upfront tariff guidelines. The handling equipment considered by the PPT for estimation of capital cost is accepted.

(b). For Container Component:

The list of equipment suggested in the guidelines for handling containers includes one RMQC for 100 meter of berth length, one RMGC for handling 6 rakes per day, three RTGs for each RMQC, one Reach Stacker and / or top lift Trucks for nine RTGs and six Tractor Trailers for each RMQC. In its initial proposal, the PPT considered two RMQCs, two RTGs, two Reach Stackers and 12 Tractor Trailers and did not consider the RMGC.

Going by the formula prescribed for calculation of quay capacity of a container terminal and if 50% of the 450 meters length of berth is considered, the volume of containers that can be handled works out to around 3.98 lakh TEUs. The share of containers considered by PPT in its initial proposal dated 22 October 2009 in the calculation of optimum capacity was 1.50 lakh TEUs. In the light of lower volumes of containers projected, the PPT was requested to justify the requirement of container handling equipment consequent upon which the PPT has reassessed the requirement of equipments deployment and updated the share of container in cargo mix from 1.50 lakh TEUs to 2.00 lakh TEUs; and, the port has proposed to substitute two numbers of HMCs of 100 tonne capacity each in the place of the two numbers RMQCs, reduce the number of RTGs from 6 to two, Tractor Trailers 15 to 12 and increased the reach-stacker to 2. With reference to non-deployment of Rail Mounted Gantry Cranes at the proposed facility, on being sought reasons

for the same, the PPT has clarified that the Rubber Tyred Gantry Cranes will serve the purpose of loading containers on the rakes. Accordingly, the revised equipment mix as proposed by PPT is relied upon for this analysis.

The consortium of VOTL and EBTL has pointed out that the cost of handling equipments is not based on prevalent cost. We do not have the benefit of the views of the PPT on the feed back given by VOTL and EBTL consortium. On being asked to furnish budgetary quotations in respect of the equipments sought to be procured and deployed, the PPT stated that the cost of equipment is projected based on the feasibility report prepared by the consultant and did not produce any budgetary quotation. It is reported in the feasibility report that the cost estimates are worked out based on current rates of material. As such, the unit rate submitted and considered by the PPT in estimation of equipment cost is relied upon.

(vii). Miscellaneous:

The norms in the upfront tariff guidelines provide for consideration of cost towards miscellaneous items in estimation of capital cost. Accordingly, cost towards miscellaneous items is considered by the PT in the estimation for capital cost.

(viii). The return on capital employed is calculated at 16% of the estimated capital cost. The consortium of VOTL & EBTL has observed that 16% is quite low and stressed the need to enhance to 20% to make the project attractive and bankable. On the other hand, the FIMI and EMIL have observed that ROCE should not be more than 10% to 12%, which is reportedly considered in private sector for such projects. It is relevant here to mention that the rate of ROCE was reviewed by this Authority and it was decided to adopt ROCE at 16% for the year 2009-10 to determine tariff for major ports and private terminals. Hence, the ROCE is computed at 16% on the estimated capital cost. This works out to Rs.32.12 Crores for cargo/container handling services and Rs.25.94 Crores for berth hire services.

(ix). **Operating Cost**

(a). Power

The guidelines stipulate consumption norms for power at 100 units/hr/ crane for estimating power cost. Since the port proposes deployment of MHCs instead of electrical level buffing cranes, the consumption prescribed in the guidelines for estimation of power consumed by cranes is not relevant in this case.

The port has, however, estimated power cost for lighting and illumination in the terminal and yard areas. The proposal of the PPT to consider power cost for general lighting is logical. Since there is no consumption norms for general lighting prescribed in the guidelines for multipurpose cargo berth, the consumption norm of 2.4 lakh unit/annum/hectare prescribed in the guidelines for liquid cargo berth adopted by the PPT is accepted. In this context, it is relevant here to mention that clause 3.6 of the guidelines for upfront tariff setting provides flexibility to this Authority to decide on a particular item of expenditure, which it considers for incorporation, while computing the upfront tariff cap for which norms are not explicit in the guidelines.

The unit rate of power considered by VPT is Rs.6.50 based on the unit rate prevailing in 2009. Power cost is estimated for 8.88 hectares of terminal and yard area.

(b). Fuel

(i). For estimation of fuel cost for operation of HMCs, the PPT has considered 100 litres per hour reportedly based on its experience in operation of such cranes. The consumption of 100 litres per hour appears to be on the higher side since recently, in the case relating to fixation of tariff for use of 100 tonnes HMC at PPT, the port reported consumption of fuel at 70 litres per hour. Consumption of fuel at 70 litres per hour is taken into account since no separate norms for fuel consumption for HMC is prescribed in the upfront tariff guidelines of February 2008.

(ii). The PPT has considered fuel consumption of 100 litres per hour for HMCs, 20 litres per hour for RTGs and Reach Stackers and 8 litres per hour for Tractor Trailor for handling containers reportedly based on information collected by the port from the Tuticorin Port Trust. A norm of 4 litres per TEU has been prescribed for fuel consumption in the guidelines for fixation of upfront tariff for the container terminal. Considering the annual capacity of 2,55,091 TEUs and taking into account the norm of 4 litres per TEU, the fuel consumption works out to 10,20,364 litres per annum which is considered for estimation of fuel cost for handling container.

(iii). The guidelines prescribe a norm of 4000 hours of working of Electrical Level Luffing cranes in a year for estimation of fuel cost. As far as the hours of working of the HMC at the multipurpose berth is concerned, the capacity of iron and steel products and other clean cargo is not restricted with reference to 4000 hours of cranes. As stated earlier, an increase of 10% over the respective share of iron and steel products and other clean cargo has also been considered to estimate the cargo capacity. That being so, the hours of HMC working needs to be updated. Considering the updated per day output of 6000 tonnes and 12.500 tonnes of the respective cargos and taking into account 16.80 working hour (24 x 70%) per day, the productivity per hour works out to 357.14 tonnes and 744.05 tonnes respectively. For the cargo capacity of 11,25,202 tonnes for iron and steel products and 16,46,231 tonnes for other clean cargo, the aggregate annual working hours comes to 5363 hours, which is considered for estimation of fuel cost of the HMC.

(iv). The fuel consumption to operate the Fork Lift Trucks and the Pay Loaders to handle other cargo are found to be in line with the norms prescribed in the upfront tariff guidelines for multipurpose cargo berth.

The estimate of fuel cost is modified updating the unit rate of fuel Rs.35.21 per litre prevailing at the time of analysis of this case as against Rs. 40.00 per litre considered by PPT.

(c). Repairs & Maintenance Cost

The estimation of Repairs and Maintenance cost at 1% on the civil assets and 5% on the mechanical and electrical components are found to be as per the norms prescribed in the guidelines.

(d). Insurance Cost

The estimation of insurance cost at 1% of the gross fixed assets is found to be as per the norms prescribed in the guidelines.

(e). Depreciation

The estimation of depreciation at 3.34% for civil assets and 10.34% for equipments are found to be as per the norms prescribed in the guidelines.

(f). License Fee

The port had estimated lease rentals in the initial proposal for a total area of 12.25 hectares. 9.40 hectares out of 12.25 hectares was envisaged for storage of containers and the remaining 2.85 hectares was for storage of other cargo. The port has reduced the storage area to 8.88 hectares in the amended proposal and has apportioned the estimated license fee equally for container storage and storage of other cargo. The area of 8.88 hectares considered by the PPT is taken into account.

Lease rental is calculated based on the rate of at Rs. 600 per 100 sq. mtr. per month prescribed in the existing scale of Rates of PPT. Recognising the specific provision in the upfront guidelines which requires estimation of this item based on the existing lease rental prescribed in the scale of Return of Major Port Trusts, the estimate of lease rental is taken at the base rate or Rs. 600 per 100 sq. mtr per month.

(g). Other expenses

The estimation of other expenses at 5% of the gross fixed assets is found to be as per the norms prescribed in the upfront guidelines.

(h). Operating cost for berthing service

The upfront tariff guidelines requires the operating cost for berthing services to be estimated at 1% of the cost of construction of berth and cost of dredging carried out alongside the berth In the amended proposal, the PPT has considered depreciation at 3.34% and insurance at 1% on the aggregate capital cost, while estimating the annual revenue requirement of berthing service, apart from the prescribed norms of 1% towards maintenance.

Although the guideline restricts the operating cost at 1% of the berth cost and dredging the asset requires adequate insurance coverage and the fact that the value of the asset will depreciate due to wear & tear can also not be denied. While fixing upfront berth hire for the coal and iron terminals at the PPT, coal terminal at the Mormugao Port Trust, multipurpose cargo terminals at Kandla Port Trust and Visakhapatnam Port Trust, this position was recognised 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 at 1% and depreciation at 3.34% of the capital cost are considered in this case also while estimating the operating cost for assessment of the revenue requirement from berth hire service. In this context it is relevant here to mention that clause 3.6 of the upfront tariff guidelines gives flexibility to this Authority to decide on a particular item of expenditure, which it considers for incorporation, while computing the upfront tariff cap for which norms are not explicit in the guidelines.

(x). The statement for fixing upfront tariff submitted by PPT has been modified in line with the above analysis and a copy of the modified statement is attached as **Annex-I**.

(xi). (a). The revenue requirement from container handling service and other cargo handling services works out to Rs.4698.47 lakhs and Rs.2635.68 lakhs respectively, which is an aggregate of Return at 16% on the capital cost of Rs.12705 lakhs for container component and Rs.7370 lakhs for other cargo

component and modified operating cost of Rs.2665.47 lakhs and Rs.1456.68 lakhs of container component and other cargo component respectively.

(b) The guidelines for multipurpose berth require that the total revenue requirement is to be apportioned at 90% to handling charge, 5% each to storage charge and Miscellaneous charges. The PPT has followed the said apportionment in respect of the revenue requirement for handling other cargo. Since the container handling also is envisaged at the multipurpose berth, the PPT has adopted the apportionment of 90%, 7% & 3% to apportion the revenue requirement of container component to handling charge, ground rent and Misc. charges respectively following the manner of apportionment of revenue requirement prescribed in the guidelines of upfront tariff setting for containers. The manner of apportionment of revenue requirement followed by the PPT being in line with the guidelines, this Authority accepts the apportionment of the total revenue requirement among the three tariff heads under container component and other cargo component as proposed by the PPT. Based on the revised revenue requirement estimated, the revenue requirement apportioned to handling charge is Rs.2372.12 lakhs, Rs.131.78 lakhs from storage charges and Rs.131.78 lakhs from Misc. Charges as far as the other cargo component is concerned. With regard to the apportionment of revenue requirement from container component, the apportionment of the revised revenue requirement among the three tariff heads works out to Rs.4228.62 lakhs, Rs.328.89 lakhs, and Rs.140.95 lakhs respectively.

(c). (i). The commodity-wise tariff cap has been derived taking into consideration the modified percentage share of cargo expected to handle, the expected cargo working days with reference to the revised handling rate.

As per Clauses 4.3 and 6.1.2 of the tariff guidelines notified in the Gazette of India on 31 March 2005, concessional tariff are to be prescribed for coastal cargo (other than thermal coal and POL including crude oil, iron ore and iron ore pellets) and coastal vessels which should not exceed 60% of the normal cargo/ vessel related charges. The PPT has envisaged 10% of the total capacity of the berth for cargo and containers. The upfront tariff cap has been arrived after considering the impact of concession applicable for coastal cargo i.e., expected to be handled at the multipurpose berth. A statement detailing the calculations is attached as **Annex-II**.

(ii) With respect to the consolidated rate for handling containers, the rate for foreign container works out to Rs.1726.76 per TEU and Rs.1036.06 per TEU for coastal containers. Incidentally, if a comparison between the consolidated rate of Rs.1726.76 per TEU and Rs.2644.00 per TEU, Rs.3434.00 per TEU and Rs.2166 per TEU fixed at the Tuticorin Port Trust, Jawaharlal Nehru Port Trust and New Mangalore port Trust is made, it may appear that the rate for the PPT is lower than the rates fixed in the above mentioned Port Trusts as upfront tariff for container handling. In this connection, it has to be recognised that the upfront tariff fixed in the above mentioned ports takes into consideration higher level of terminal productivity at a higher level of capital investment as compared to the position obtaining at PPT. For example, cost of a RMQC considered for container terminal at other ports was around Rs.44 Crores, whereas the capital cost of one 100 T HMC considered in this case is Rs.30 Crores only. Result of lower quay productivity is extended stay of vessels at berth.

(d). The KSE has observed that the handling charges should include transportation cost, wharfage and stevedoring charges. The PPT has proposed a provision in respect of handling of containers according to which the charges are consolidated charges for handling and movement of containers. With respect to the Iron &Steel

products and other cargo, the PPT has proposed a provision to state that the handling charges prescribed is a composite charge for unloading of the cargo from the vessel and transfer of the same cargo upto the point of storage, storage at the stackyard upto a free period of 5 days and loading on to trucks/rakes in respect of import cargo and unloading of the cargo from the truck/rakes at the stackyard, storage at the stackyard upto a period of 15 days, transfer the cargo to the loading point, and loading on to the ship, including stevedoring. This composite charge also includes wharfage and supply of labour wherever necessary and all other misc. charges not specifically prescribed in the Scale of Rates.

(e). As per the upfront tariff guidelines, storage charge for the multipurpose terminal is leviable for storage of cargoes at the storage area beyond the allowable free period of 5 days for import and 15 days for export. The amended proposal of the PPT reflects this position for both cargo and containers.

Based on the revised revenue requirement, the storage charge estimated by the PPT is modified and the storage charge for loaded and empty containers are prescribed at Rs.138 per TEU per day or part thereof for the first week, Rs.207 per TEU per day for the second week and Rs.276 per TEU per day for the third week and thereafter as against Rs. 215.00, Rs. 323.00 and Rs. 430.00 respectively proposed by the PPT. In case of other cargo, the rate will be Rs.5/- per day for the first week and Rs.7.50 per ton per day for the second week and Rs.10/- per ton per day thereafter.

(f). The revised revenue requirement towards Miscellaneous charges works out to Rs. 140.95 lakhs for the container component and Rs.131.78 lakhs for other cargo component as against Rs. 148.24 lakhs and Rs. 134.05 lakhs respectively estimated by the PPT. The miscellaneous charge is stated to cover the expenses towards environment and management, lift-on – lift-off charges, sweeping of cargo on the wharf, safety measures etc.

Based on the modified revenue requirement, tariff cap for miscellaneous services are prescribed at Rs.55.25 per TEU for container component and Rs.4.75 per tonne for other cargo component as against Rs. 86.00 per TEU & Rs. 6.00 per tonne proposed by the PPT.

(g). The revenue requirement from berthing services is estimated at Rs.3460.49 lakhs (i.e. operating cost of Rs.865.93 lakhs and Rs.2594.56 lakhs being 16% return on the modified capital cost of Rs.16216 lakhs) as against Rs.3468 lakhs estimated by the PPT.

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 notification of the relevant tariff order. This Authority while finalising the upfront berth hire at other ports including the iron ore / coal terminals at PPT 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 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.

The PPT in the amended proposal has proposed berth hire in Rupee terms for foreign going vessels. The methodology followed by the PPT for arriving at the berth hire is in general found to be in line with the approach followed by this Authority in other upfront cases. The PPT has considered the impact of concession applicable to the coastal vessels as per the Government policy while

arriving at the predetermined berth hire based on the foreign and coastal vessel mix at 90% and 10% respectively.

Taking into account the modified tonnage expected to be handled , the predetermined upfront berth hire for foreign vessels works out to Rs.0.68 per GRT per hour and Rs.0.41 per GRT per hour for coastal vessel as compared to Rs.0.83 per GRT per hour and Rs.0.50 per GRT per hour for foreign and coastal vessels respectively computed by the PPT. The detailed computation of berth hire of multipurpose berth is furnished in the **Annex-III** attached.

(xii). Definition of some of the common terms like foreign going vessel, coastal vessel, day and week are included in upfront schedule in line with the definitions prescribed in the Scale of Rates of PPT and other private terminals operating at the major ports.

(xiii). The rate and conditions for granting ousting priority berthing / priority berthing will be governed by extant Government guidelines in this regard and provisions approved in the Scale of Rates of PPT.

(xiv). The Consortium of VOTL & EBTL has observed that the exact time when the free period for calculation of storage charges start and should be clearly defined in the Scale of Rates of PPT. It is prescribed that free period for export cargo shall commence from the actual date of receipt of goods in the operator's premises and for import cargo from the day following the day of completion of final discharge from the vessel, which is in line with conditions prescribed in the Scale of Rates of major ports including PPT.

(xv). It is logical to levy storage charges on cargo for all days including Terminal's non-working days and Customs notified holidays for stay of cargo beyond the prescribed free period. Therefore, a conditionality proposed by the PPT on the above lines is approved.

(xvi). Some of the common conditions stipulated in the guidelines of 2005 and uniformly prescribed in the Scale of Rates of other major ports / private terminals such as users should not be required to pay charges for delays beyond reasonable level attributable to the private terminal operator, berth hire shall stop 4 hours after the vessel signaling readiness to sail, penal berth hire for a false signal , non accrual of storage charge for the period when the operator is not in a position to effect deliver/ship the cargo when requested by user for the reasons attributable to the operator are included in the upfront tariff schedule.

(xvii). Recognising that conditionalities fixed now would be applicable for a time frame of 30 years, the provision relating to penal rate of interest for delayed payment by users and delayed refund by the operator, is prescribed at 2% above the Prime Lending Rate of the State Bank of India in line with the provision prescribed in other upfront tariff cases decided by this Authority.

(xviii). Some of the proposed provisions which are not in line with the common prescription at other major ports / private terminals and the provisions of the revised tariff guidelines have been either been deleted or modified.

12.1. As per clause 2.8 of the Guidelines, 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 2010 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.

12.2. As specified in clauses 2.9.1. and 2.9.2. of the guidelines, before commencement of commercial operations, the private operator shall approach this Authority for notification of Scale of Rates containing the approved ceiling rates and the statement of conditions, as required under Section 48 of the Major Port Trusts Act, 1963.

12.3. As per clause 3.8.5 of the guidelines, if any question arises requiring clarifications or interpretation of the Scale of Rates and the statement of conditionalities, the matter shall be referred to this Authority and its decision in this regard will be binding on the operator.

12.4. The performance norms for the projects should be clearly brought out in the bid documents. The private operator is expected to perform at least at the performance norms brought out in the bid document/concession agreement.

12.5. The actual performance of the private operators will be monitored by this Authority. If any complaint regarding quality of service is received, this Authority will enquire into such allegation and forward its findings to the Paradip Port Trust. If any action is to be taken against the private operators, the Paradip Port Trust shall initiate appropriate action in accordance with the provisions of the relevant Concession Agreement.

12.6. During the commercial operation at the terminal, within 15 days from the end of every quarter, the private operator shall submit to this Authority through the Paradip Port Trust a report containing the terminal's physical and financial performance during the preceding three months.

13. In the result, and for the reasons given above, and based on a collective application of mind, this Authority approves the tariff caps for the multipurpose berth at Paradip Port Trust attached as **Annex-IV**.

(Rani Jadhav)
Chairperson

ANNEX - I

FORMULATION OF UPFRONT TARIFF FOR MULTIPURPOSE CARGO BERTH AT PARADIP PORT

Sr. No.	Particulars	Estimates furnished by PPT			Estimates modified by TAMP
		Initial proposal dated 22 Oct 2009	Revised estimates dated 18 Dec 2009	Amended Estimates dated 26 Dec 2009	
I	**Optimal capacity**				
(a)	Percentage share of capacity of cargo to be handled				% share of cargo
	Percentage share of Capacity of Containers (S1)	46%	46%	46.60%	46.60%
	Percentage share of Capacity of Iron and Steel (S2)	22%	22%	21.70%	21.70%
	Percentage share of Capacity of Other Clean Cargo (S3)	32%	32%	31.70%	31.70%
(b)	Handling Rate of cargo vessel carrying (in tonnes per day)				
	- Containers (P1)	17050	17050	9984	16 moves per hour
	- Iron and Steel (P2)	4000	4000	4000	6000
	- Other Clean Cargo (P3)	10000	10000	10000	12500
(c)	Optimal Capacity in tonnes = 0.7*((S1*P1)+(S2*P2)+(S3*P3))*365*2	**4974276**	**4974276**	**4440868**	**2771433 tonnes 255091 TEUS (3316183 tonnes)**
II	**Capital Cost**				
(i).	**Cargo Handling Activity**	**Rs. in Lakhs**	**Rs. in Lakhs**	**Rs. in Lakhs**	**Rs. in Lakhs**
	(a). Civil Cost				
	- Berth apron and approach	1189.00	2974.00	2974.00	2974.00
	- Land Preparation Cost	15	15.00	15.00	15.00
	- Utilities	330.00	330.00	330.00	330.00
	- Rail Connectivity	2080.00	2080.00	2080.00	2080.00
	- Stockyard	2080.00	2080.00	1500.00	1500.00
	- Buildings	628.00	628.00	628.00	628.00
	Subtotal (a)	**6322.00**	**8107.00**	7527.00	7527.00
	Civil Cost(Container component)	**3161.00**	**4053.50**	**3763.50**	**3763.50**
	Civil Cost(Multipurpose component)	**3161.00**	**4053.50**	**3763.50**	**3763.50**
	(b). Equipment Cost				
	Multipurpose Equipment				
	-100 Tonne Harbour Mobile Crane - 1 nos	6000.00	6000.00	3000.00	3000.00
	Empty Handler 1 No	75.00	75.00	-	-
	Crawler Crane 1 No.	200.00	200.00	-	-
	- Fork lift truck 10 tonnes - 2 no.	-	-	70.00	70.00
	- Fork lift truck 5 tonnes - 4 no.	-	-	80.00	80.00
	- Payloaders -3 nos	-	-	105.00	105.00
	Containers Equipment				
	- 100 Ton MHC - 2 nos	-	-	6000.00	6000.00
	Rail Mounted Quay Cranes(RMQC) 2Nos.	5600.00		-	-
	- Rubber Tyred Gantry Cranes(RTGC) - 2 nos	4200.00	4200.00	1500.00	1500.00
	- Reach Stacker(RS) - 2 nos	200.00	200.00	380.00	380.00
	- Tractor Trailor(TT) - 12 nos	450.00	450.00	456.00	456.00
	Equipment Cost Containers	**10525.00**	4850.00	**8336.00**	**8336.00**
	Equipment Cost Multipurpose	**6200.00**	6275.00	**3255.00**	**3255.00**
	Subtotal (B)	**16725**	**11125**	**11591.00**	**11591.00**
	(c).Miscellaneous [5% on (a) and (b)]				
	Containers	684.30	445.18	604.98	604.98
	Multipurpose	468.05	516.43	350.93	350.93
	Sub Total (C)	**1152.35**	**961.60**	**955.90**	**955.91**
	(d). Total Capital Cost for Handling Activity (a +b + c)	**24199.35**	**20193.60**	**20073.90**	**20073.91**
	Subtotal (d) Containers	**14370.30**	**9348.68**	**12704.48**	**12704.48**
	Subtotal (d) Multipurpose	**9829.05**	**10844.93**	**7369.43**	**7369.43**

Sr. No.	Particulars	Estimates furnished by PPT			Estimates modified by TAMP
		Initial proposal dated 22 Oct 2009	Revised estimates dated 18 Dec 2009	Amended Estimates dated 26 Dec 2009	
(ii).	**Capital Cost For Berthing Services**				
	(a). Cost of construction of Berth	10706.40	8922.00	8922.00	8922.00
	(b). Cost of dredging alongside berth	5820.00	5820.00	5820.00	5820.00
	(c) 5.50% Contingencies and engineering project management	909.00	737.00	737.00	737.00
	(d) 5% towards miscellaneous.	872.00	774.00	774.00	737.00
	Total Capital cost for berthing services	**18307.12**	**16253.06**	**16253.06**	**16216.00**
(iii).	**Total Capital Cost of the Project (i+ii)**	**42506.47**	**36446.66**	**36326.96**	**36289.91**
III	**Operating Cost**				
(i).	**Cargo Handling Activity**				
	(a). Power				
	Container Component	78.00	78.00	70.20	70.20
	Multipurpose Cargo	104.00	104.00	70.20	70.20
	(b) Fuel Cost				
	Container Component	240.00	240.00	**601.60**	359.27
	- 100 Ton MHC - 2 nos			320.00	-
	- RTGC - 2 nos			64.00	-
	- Reach Stacker - 2 nos			64.00	-
	- TT - 12 nos			153.60	-
	Multipurpose Cargo	77	211	**294.40**	250.48
	100 Ton Mobile Harbour Crane			160.00	132.18
	- Fork lift truck 10 tonnes - 2 no.			32.00	28.17
	- Fork lift truck 5 tonnes - 4 no.			44.80	39.43
	- Payloaders -3 nos			57.60	50.70
	(c). Repair & Maintenance				
	Container Component				
	- Civil Assets (1% on gross civil assets)	31.61	40.54	37.64	37.00
	- Mechanical & Electrical Equipment including spares (5% on cost of mechanical and electrical equipments)	210.50	97.00	416.80	417.00
	Multipurpose Component				
	- Civil Assets (1% on gross civil assets)	31.61	40.54	37.64	37.00
	- Mechanical & Electrical Equipment including spares (5% on cost of mechanical and electrical equipments)	310.00	313.75	162.75	163.00
	(d). Insurance (1% on gross value of assets)				
	Container Component	143.70	93.49	127.04	127.00
	Multipurpose Cargo	98.29	108.45	73.69	74.00
	(e). Depreciation				
	Container Component	1193.86	636.88	987.64	988.00
	Multipurpose Cargo	746.66	784.22	462.27	462.00
	(f). License fee (Rentals for land and other port assets)				
	Container Component	0.68	0.68	32.40	32.00
	Multipurpose Cargo	20	20	32.40	32.00
	(g). Other Expenses (5% of Gross fixed assets)				
	Container Component	718.52	467.43	635.22	635.00
	Multipurpose Cargo	491.45	542.25	368.47	368.00
	Total Operating Cost				
	Container Component	**2616.87**	**1654.01**	**2908.54**	**2665.47**
	Multipurpose Cargo	**1879.01**	**2124.20**	**1501.81**	**1456.68**

Sr. No.	Particulars	Estimates furnished by PPT			Estimates modified by TAMP
		Initial proposal dated 22 Oct 2009	Revised estimates dated 18 Dec 2009	Amended Estimates dated 26 Dec 2009	
IV	**Revenue Requirement & proposed tariff**				
(i).	**Cargo Handling charge(Containers)**	**(Rs.in lakhs)**	**(Rs.in Lakhs)**		**(Rs.in Lakhs)**
	Revenue Requirement				
	(a). Total Operating Cost	2616.87	1654.01	2908.54	2665.47
	(b). Return on capital Employed @ 16%	2299.25	1495.79	2032.72	2033.00
	(c). Total Revenue requirement from cargo handling activity	**4916.12**	**3149.80**	**4941.26**	**4698.47**
	Apportionment of Revenue Requirement				
	(a) Handling Charges	4424.51	2834.82	4447.13	4228.62
	(b) Storage Charges	344.13	220.49	345.89	328.89
	(c) Miscelleneous Charges	147.48	94.49	148.24	140.95
	(d). Total Revenue requirement from cargo handling activity	**4,916.12**	**3,149.80**	**4,941.26**	**4,698.46**
	Cargo Handling charge(Other Cargo)	**(Rs.in Lakhs)**	**(Rs.in Lakhs)**	**(Rs.in Lakhs)**	**(Rs.in Lakhs)**
	Revenue Requirement				
	(a). Total Operating Cost	1879.01	2124.20	1501.81	**1,456.68**
	(b). Return on capital Employed @ 16%	1572.65	1735.19	1179.11	**1,179.00**
	(c). Total Revenue requirement from cargo handling activity	**3451.66**	**3859.39**	**2680.92**	**2,635.68**
	Apportionment of Revenue Requirement				
	(a) Handling Charges	3106.49	3473.45	2412.83	**2,372.12**
	(b) Storage Charges	172.58	192.97	134.05	**131.78**
	(c) Miscelleneous Charges	172.58	192.97	134.05	**131.78**
	(d). Total Revenue requirement from cargo handling activity	**3,451.66**	**3,859.39**	**2,680.92**	**2,635.68**
(ii).	**BERTH HIRE CHARGES**	**(Rs.in Lakhs)**	**(Rs.in Lakhs)**	**(Rs.in Lakhs)**	**(Rs.in Lakhs)**
	Revenue Requirement				
(a)	**Operating Cost**				
	(i). Maintenance Charge (1% on cost of construction of berth)	183	163	162.53	162.16
	(ii). Depreciation	0	0	542.85	541.61
	(iii). Insurance (1% on berth cost)	0	0	162.53	162.16
	Subtotal (a)	**183.00**	**163.00**	**867.91**	**865.93**
(b)	Return on capital Employed @ 16%	29.29	26	2600.49	2594.56
	Total Revenue requirement from Berthing services (a + b)	**212.29**	**189.00**	**3468.40**	**3460.49**
	Berth hire Charge per GRT per hour				
	Foreing going vessel (Rate per GRT per hour) in Re.	**1.8**	**0.8**	**0.83**	**0.68**
	Coastal vessel (Rate per GRT per hour) in Re.	**1.07**	**Re. 0.48**	**0.50**	**0.41**

ANNEX - II

STATEMENT SHOWING THE CALCULATIONS OF HANDLING CHARGES UNDER DIFFERENT CARGO GROUPS

Cargo Group	Handling Rate Per Day	Cargo to be handled (tonnes)	Cargo Working Days (iv / iii)	Revenue Requirement (Rs. in Lakhs)	Cargo to be handled (Foreign) in tonnes	Cargo to be handled Coastal (in tonnes.)	Rate in Rs. For foreign cargo	Rate in Rs. For coastal cargo
Iron and Steel	6000	1125202	188	96,379,236.00	1012682	112520	89.22	53.53
Other Cargo	12500	1646231	132	140,832,764.00	1481608	164623	89.11	53.47
Total	**---**	**2771433**	**320**	**237,212,000.00**	**2494290**	**277143**	**---**	---

1 Iron and Steel Products	
Cargos to be handled	1125202 tonnes
Foreign Cargo	1012682 tonnes
Coastal Cargo	112520 tonnes
Revenue Requiremen	96,379,236.00
Rate for foreign Cargo	x
Rate for coastal cargo	0.6x
1012682x+112520*(0.6x)=	96,379,236.00
1012682x+67512x=	96,379,236.00
1080194x=	96,379,236.00
x=	89.22
0.6x=	**53.53**

2 Other Cargo	
Cargos to be handled	1646231
Foreign Cargo	**1,481,608.00**
Coastal Cargo	**164,623.00**
Revenue Requiremen	**140,832,764.00**
Rate for foreign Cargo	**x**
Rate for coastal cargo	**0.6x**
1481608x+164623x*(0.6x)=	**140,832,764.00**
1481608x+98774x=	**140,832,764.00**
1580382x	**140,832,764.00**
x=	**89.11**
0.6x=	53.47

ANNEX - III

STATEMENT SHOWING THE CALCULATIONS OF BERTH HIRE CHARGE

A As furnished by the PPT

Sr. No	Particulars	Unit	Containers	Iron and Steel	Other Cargo	Total
i	Ratio	%	46.6%	21.7%	31.7%	100%
ii	Handling Rate	Tonnes per day	9984	4000	10000	
iii	Average GRT per vessel	tonnes	35000	25000	35000	
iv	Average parcel size	tonnes	30000	22000	30000	
v	Tonnage expected to be handled	Tonnes	2069444	851800	1407755	4440868
vi	No of berth days	days	207	241	141	
vii	No of berth hours {24 x (vi)}	hours	4975	5782	3379	
viii	Expected number of vessels	No of vessels	31	27	37	95
ix	Total GRT hours	Tonne hours	174111915.40	144550252.9	118251432.7	436913601
x	Revenue Requirement	Rs. in crores				**346840000.00**
xi	**Berth hire proposed by the PPT (xi /x)**	per GRT per hour or part thereof				

(a) **Foreign Vessels** 0.83

(b) **Coastal Vessels** 0.50

B As considered by TAMP

Sr. No	Particulars	Unit	Containers	Iron and Steel	Other Cargo	Total
i	Ratio	%	47%	22%	32%	100%
ii	Handling Rate	Tonnes per day	9085	6000	12500	27585
iii	Average GRT	tonnes	35000	25000	35000	
iv	Average parcel size	tonnes	30000	22000	30000	
v	Tonnage expected to be handled	Tonnes	3316183	1125202	1646231	6087616
vi	No of berth days (v/ii)	days	365	188	132	-
vii	No of berth hours {24 x (vi)}	hours	8760	4512	3168	-
viii	Total GRT hours (vii x iii)	Tonne hours	306600000	112800000	110880000	530280000
ix	Revenue Requirement	Rs. in crores				**3460.49**
x	**Modified Berth hire**					
(a)	**Foreign Going vessel**	per GRT per hour or part thereof				**0.68**
(b)	**Coastal vessel**					**0.41**

Workings:		With reference to revenue requirement as per norms
i.	Revenue requirement for 90% foreign going vessels + 10% coastal vessels (Rs)	3460.49
ii.	GRT hours of foreign going vessels (530280000* 90%)	477252000
iii.	GRT hours of coastal vessels (530280000 * 10%)	53028000
iv.	Total GRT hours =	53028000
v.	477252000x + 53028000x 0.6 =	3460.49
vi.	477252000 x + 31816800 =	3460.49
vii	509068800x =	3460.49
viii.	X (foreign going) (Rs.) =	0.68
ix	0.6 * 0.67 (coastal) (Re.) =	0.41

Annex - IV

PARADIP PORT TRUST

UPFRONT TARIFF SCHEDULE FOR MULTIPURPOSE TERMINAL

1.1. DEFINITIONS

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

(i). "**Coastal Vessel**" shall mean any vessel exclusively employed in trading between any Terminal or place in India to any other Port or place in India having a valid coastal license issued by the competent authority.

(ii). "**Container**" shall mean the standard ISO container, suitable for the transport and stacking of cargo and must be capable of being handled as a unit and lifted by a crane with a container spreader.

(iii). "**Day"** shall mean the period starting from 6.00 am of a day and ending at 6.00 am on the next day.

(iv). "**Demurrage**" shall mean charges payable for storage of cargo in transit area within the Terminal premises beyond free period, as specified in the Scale of Rates.

(v). "**Export Container**" means a container arrived by road or train, stored in container yard and loaded on the assigned vessel.

(vi). "**Foreign-going Vessel**" shall mean any vessel other than a coastal vessel.

(vii). "**Free period**" shall mean the period during which cargo/container is allowed storage free of demurrage charges/ground rent and this period shall exclude Customs notified holidays and Terminal's non-operating days.

(viii). "**Full Container Load**" (FCL) shall mean a container containing cargo belonging to one consignee in the vessel's manifest.

(ix). "**Hazardous container**" shall mean a container containing hazardous goods as classified under International Maritime Organisation (IMO.)

(x). "**ICD**" shall mean Inland Container Depot.

(xi). "**Import Container**" means a container discharged from one vessel, stored in container yard and transported out through Road or Train.

(xii). "**Less than a Container Load**" (LCL) shall mean a container containing cargo belonging to more than one consignee in the vessel's manifest.

(xiii). "**Over Dimensional Container**" shall mean a container carrying over dimensional cargo beyond the normal size of standard containers and needing special devices like slings, shackles, lifting beam, etc. Damaged Containers (including boxes having corner casting problem) and Container requiring special devices for lifting is also classified as Over Dimensional Container.

(xiv). "**Per day**" shall mean a calendar day or part thereof.

(xv). "**Port**" shall mean Paradip Port Trust.

(xvi). "**Port area**" means the custom bound area/Port operational area of the Port.

(xvii). "**Reefer Container**" shall mean a refrigerated container used for carriage of goods with provisions for electrical supply to maintain the desired temperature.

(xviii). "**Shut Out Container**" shall mean a container, which enters into the Terminal as an export intake for a particular vessel as indicated by the Vessel Identification Advice No.(VIAN) Container Advance Information List (COPRAR) and is not shipped into the particular vessel for reasons whatsoever.

(xix). "**Back to Town container"** shall mean a container entering the port for export but unable to be exported for whatever reason and taken back to town.

(xx). "**Transhipment container**" shall mean any container, which is discharged from one vessel stored in the container Terminal and shipped through another vessel for other port.

(xxi). "**Week"** shall mean a period of 7 days.

1.2. <u>GENERAL TERMS & CONDITIONS</u>

(i). The status of the vessel, as borne out by its certification by the Customs or the Director General of Shipping, shall be the deciding factor for its classification as 'coastal' or 'foreign-going' for the purpose of levying vessel related charges; and, the nature of cargo or its origin will not be of any relevance for this purpose.

(ii). (a) A foreign going vessel of Indian Flag having a General Trading Licence can convert to Coastal run on the basis of a Customs Conversion Order.

(b). A foreign going vessel of Foreign Flag can convert to coastal run on the basis of a Coastal Voyage Licence issued by the Director General of Shipping.

(c). In cases of such conversion, coastal rates shall be chargeable by the load Terminal from the time the vessel starts loading coastal goods.

(d). In cases of such conversion, coastal rates shall be chargeable only till the vessel completes coastal cargo discharging operations; immediately thereafter, foreign-going rates shall be chargeable by the discharge Terminals.

(e). For dedicated Indian coastal vessels having a Coastal Licence from the Director General of Shipping, no other document will be required to be entitled to Coastal rates.

(iii). Interest on delayed payments/refunds.

(a). The user shall pay penal interest on delayed payments of any charge under this Scale of Rates. The rate of interest will be at 2% above the Prime Lending Rate of State Bank of India

(b). Like wise, the Terminal operator shall pay penal interest on delayed refunds. The rate of interest will be at 2% above the Prime Lending Rate of State Bank of India.

(c). The delay in refunds by the Terminal Operator will be counted beyond 20 days from the date of completion of services or on production of the documents required from the users, whichever is later.

(d). The delay in payments by the users will be counted beyond 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 as stipulated in the Major Port Trusts Act, 1963 and/or where payment of charges in advance is prescribed in this Scale of Rates.

(iv). All charges worked out shall be rounded off to the next higher rupee on the grand total of each bill.

(v). No claims for refund shall be entertained unless the amount refundable is Rs.100/- or more. Likewise, Terminal Operator shall not raise any supplementary or under charge bills, if the amount due to Terminal is Rs.100/- or less.

(vi). Containers less than and up to 20' in length will be reckoned as one TEU for the purpose of tariff.

(vii). Users shall not be required to pay charges for delays beyond a reasonable level attributable to the Terminal.

(viii). The vessel related charges for all Coastal vessels should not exceed 60% of the corresponding charges for other vessels.

(ix). (a). The container related charges for all Coastal containers should not exceed 60% of the normal container related charges.

(b). In case of container related charges, the concession is applicable on composite box rate. Where itemized charges are levied, the concession will be on all the relevant charges for ship-shore transfer, and transfer from / to quay to / from storage yard as well as wharfage on cargo and containers.

(c). For the purpose of this concession, container from a foreign port which reaches an Indian Port 'A' for subsequent transshipment to Indian Port 'B' will also qualify insofar as the charges relevant for its coastal voyage. In other words, cargo / containers from / to Indian Ports carried by vessels permitted to undertake coastal voyage will qualify for the concession.

(x). (a). The rates prescribed in this Scale of Rates are ceiling levels; likewise, rebates and discounts are floor levels. The Terminal Operator may, if it so desire, charge lower rates and/ or allow higher rebates and discounts.

(b). The Terminal Operator may also, if it so desires, rationalise the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalization gives relief to the user in rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling levels. Provided that the Terminal 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 changes in such lower rates and / or in the conditionalities governing the application of such rates provided the new rates fixed shall not exceed the rates notified by the TAMP.

1.3. <u>BERTH HIRE CHARGES:</u>

The berth hire charge payable by masters / owners / agents of the vessel and other floating craft approaching or lying alongside the berth shall be as per the rates given below:

S. No.	Vessels	Rate per GRT per hour	
		Foreign Going Vessel(Re)	Coastal Vessel (Re)
1	All vessels	0.68	0.41

<u>Notes:</u>

(i). The time for the purpose of levy of berth hire shall be reckoned from the time vessel occupies the berth till she vacates the berth.

(ii). Berth hire includes charges for services rendered at the berth, such as occupation of berth, rubbish removal, cleaning of berths, fire watch, etc.

(iii). No berth hire shall be levied for the period when the vessel idles at its berth for continuous one hour or more due to breakdown of terminal operator's equipment or power or for any other reasons attributable to the terminal operator.

(iv). (a). Berth hire shall stop 4 hours after the time of vessel signaling its readiness to sail.

(b). The time limit of 4 hours prescribed for the cessation of berth hire shall exclude the ship's waiting time for want of favorable tide conditions, inclement weather, and due to lack of night navigation.

(c). The master/agent of the vessel shall signal readiness to sail only in accordance with favorable tidal and weather conditions.

(v). The Penal Berth hire shall be equal to one-day's (24 hours) berth hire charge for a false signal.

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

(vi). 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 and provisions prescribed in the Scale of Rates of Paradip Port Trust.

1.4. CONTAINER RELATED CHARGES

(A). HANDLING CHARGES

The following consolidated charges for handling and movement of container shall be payable by the Shipping Lines or Agents of vessels or cargo agents for services rendered in respect of containers and containerised cargo passing through the port.

NORMAL AND REEFER CONTAINERS

S. NO.	Particulars	Foreign Going (In Rs)			Coastal (In Rs)		
		Container not exceeding 20' in length	Container exceeding 20' but up to 40' in length	Container exceeding 40' in length	Container not exceeding 20' in length	Container exceeding 20' but up to 40' in length	Container exceeding 40' in length
(i)	Loaded Container	1726.76	2590.14	3453.52	1036.06	1554.10	2072.12
(ii)	Empty Container	1384.41	2072.11	2762.82	828.85	1243.27	1657.70

The handling charges for transshipment containers shall be concessional. Such charges shall not exceed 1.5 times the handling charges for the normal handling operation in loading or unloading cycle. In the case of transshipment of coastal containers, the concession in handling charges prescribed shall be calculated with reference to the applicable handling charges which are subject to the concessions specified in General Condition No.(ix) (a) above for coastal containers for the normal handling operation in loading or unloading cycle.

Note:

(1). Handling charges for Hazardous cargo containers / over-dimensional cargo containers shall attract 1.25 times the normal applicable charges.

(B). STORAGE CHARGES

S. NO.	Particulars	Rate in Rs		
		Container not exceeding 20' in length	Container exceeding 20' but up to 40' in length	Container exceeding 40' in length
(i)	**Loaded Container**			
	-First week after free period	138	276	414
	-Second week after free period	207	414	621
	-Third weeks and over after free period	276	552	828
(ii)	**Empty Container**			
	-First week after free period	138	276	414
	-Second week after free period	207	414	621
	-Third weeks and over after free period	276	552	828

Note:

(i). Five free days for import containers and fifteen free days for export containers shall be allowed. Customs notified holidays and Terminals non-working days shall be excluded for the purpose of calculation of free days.

(ii). Dwell time charges for Hazardous cargo containers / over-dimensional cargo container shall attract 1.25 times the normal applicable charges.

(iii). Free storage period for import loaded and empty containers shall commence from the day after the day of landing of the containers.

(iv). Free storage period for export loaded and empty containers shall commence from the time the container enters the terminal.

(v). The storage charges shall not accrue for the period during which the operator is not in a position to deliver / ship containers when requested by the user.

(vi). The storage charges on abandoned FCL containers/shipper owned containers shall be levied upto the date of receipt of intimation of abandonment in writing or 75 days from the date of landing of container, whichever is earlier subject to the following conditions:

(i). The consignee can issue a letter of abandonment at any time.

(ii). If the consignee chooses not to issue such letter of abandonment, the container Agent/MLO can also issue abandonment letter subject to the condition that,

(a) the Line shall resume custody of container along with cargo and either take back or remove it from port premises; and

(b) the Line shall pay all port charges accrued on the cargo and container before resuming custody of the container.

(iii). The container Agent/MLO shall observe the necessary formalities and bear the cost of transportation and destuffing. In case of their failure to take such action within the stipulated period, the storage charge on container shall be continued to be levied till such time all necessary actions are taken by the shipping lines for destuffing the cargo.

(iv). Where the container is seized/confiscated by the Custom Authorities and the same cannot be destuffed within the prescribed time limit of 75 days, the storage charges will cease to apply from the date the Customs order release of the cargo subject to lines observing the necessary formalities and bearing the cost of transportation and destuffing. Otherwise, seized/confiscated containers should be removed by the Lines/consignee from the port premises to the Customs bonded area and in that case the storage charge shall cease to apply from the date of such removal.

(C). MISCELLANEOUS CHARGES

S. NO.	Particulars	Rate in Rs		
		Container not exceeding 20' in length	**Container exceeding 20' but up to 40' in length**	**Container exceeding 40' in length**
(i)	Loaded Container	55.25	82.88	110.50
(ii)	Empty Container	55.25	82.88	110.50

1.5. MULTIPURPOSE CARGO RELATED CHARGES

(A). HANDLING CHARGES:

The cargo handling charges shall be payable on the manifested cargo directly by the importer of cargo at the rates specified below:

S. No.	Commodity	Unit	Rate in Rupees (Foreign)	Rate in Rupees (Coastal)
1	Iron and Steel products	Ton	89.22	53.33
2	Aluminum ingots, pig iron, finished fertilizers, food grains, sugar	Ton	89.11	53.47

The handling charges prescribed above is a composite charge for (i) unloading of the cargo from the vessel and transfer of the same upto the point of storage, storage at the stackyard upto a free period of 5 days and loading on to rakes/trucks in respect of import cargo and (ii) unloading of the cargo from the rakes/trucks at the stackyard, storage at the stackyard upto a period of 15 days, transfer the cargo to the loading point and loading onto the ship including stevedoring. This composite charge includes wharfage and supply of labour, wherever necessary and all other miscellaneous charges not specifically prescribed in the Scale of Rates.

(B). STORAGE CHARGES:

The storage charges for the cargo stored in the stackyard beyond the free period allowed shall be as below:

Free period:
Import cargo : 5 days free
Export cargo : 15 days free

Storage charges after free period:

IMPORT

S. No.	Commodity	Unit	Rate for 6th-12th day (Re)	Rate for 13th-19th day (Re)	Rate for 20th day onwards (Re)
1	All types of Multipurpose cargo	Per ton	5	7.50	10

EXPORT

S. No.	Commodity	Unit	Rate for 16th-22nd day(Re)	Rate for 23th-29th day(Re)	Rate for 30th day onwards(Re)
1	All types of Multipurpose cargo	Per ton	5	7.50	10

Notes:

(i). Five free days for import cargo and fifteen free days for export cargo shall be allowed. For the purpose of calculation of free period, Customs notified holidays and Terminal's non- working days shall be excluded.

(ii). Storage charges shall be payable for all days including Terminal's non-working days and Customs notified holidays for stay of cargo beyond the prescribed free days.

(iii). Free period for import cargo shall be reckoned from the day following the day of completion of final discharge from the vessel.

(iv). Free period for export cargo shall commence from the actual date of the receipt of cargo in the operator's premises.

(v). Storage charge on cargo shall not accrue for the period when the terminal operator is not in a position to deliver / ship the cargo when requested by the user due to reasons attributable to the terminal operator.

(C). MISCELLANEOUS CHARGES

The composite charge for all miscellaneous services such as environment and management, lift on-lift off charges , sweeping of cargo on the wharf, safety measures, etc. shall be as below:

S. No.	Commodity	Unit	Rate in Rupees
1	All types of Multipurpose cargo	Per Ton	4.75

1.6. GENERAL NOTE TO SCHEDULE (1.3) to (1.5) 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 2010 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.

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

No.TAMP/43/2009-PPT - **Proposal from the Paradip Port Trust for fixing upfront tariff for development of multipurpose berth to handle clean cargo including containers on BOT Basis at Paradip Port.**

1. A summary of comments received from users / user organisations / qualified bidders are summarised below:

Kalinga Steamship Agents Association (KSEA)

(i). The Tariffs for handling containers, iron and steel products and other cargo are supposed to include the cargo loading/unloading charges, transportation and storage charges, wharfage charges etc.

(ii). The handling charges indicated for Steel Products is Rs. 196/- PMT. Hence, if we add transportation cost and stevedoring cost, the Tariff shown seems to be inadequate and needs to be reviewed. This may be reviewed taking into consideration the transportation costs along with Wharfage and the Stevedoring charges and the Handling cost at the plot.

(iii). Similarly, for other clean cargoes, the Handling charges of Rs.87/- / Rs.52/- per tone also seems to be inadequate, considering the present Wharfage charges. This may be reviewed taking into consideration the Transportation costs alongwith Wharfage and the Stevedoring charges and the Handling costs at the plot.

IL&FS Maritime Infrastructure Company Ltd (IL&FS MICL)

(i). The capital and Operating Costs considered appear to be underestimated with respect to the prevailing scale of rate/cost of construction. Further, this estimation is as per scale of rates for the year 2009 while the actual project construction is assumed to be undertaken in 2012 – 2014. Therefore, due escalation on account of inflation should be taken into consideration for computation of capital and Operating Cost for fixing upfront tariff.

(ii). The supporting infrastructure cost towards capital dredging has been considered as Rs. 58.2 crore. However, no supporting information such as volume or rate of dredging has been mentioned. Therefore, it is difficult to ascertain this cost. Further, the Port Authority will be responsible for undertaking capital dredging works (including dredging at berth, basin and upto channel). Further, the Port Authority shall also be responsible for undertaking maintenance dredging.

(iii). For conversion of TEUs to tons, a factor of 15.5 tons has been considered. However, as per standard industry practice in India, an average factor of 12 is considered. Hence, 1 TEU = 12 tons. Consequently, the calculation of Optimal Quay Capacity may be amended. Alternatively the rationale for conversion factor of 15.5 may be clarified.

(iv). For the calculation of Optimal Quay Capacity, the entire "Expected Annual Demand (by 2014-2015)" for different types of clean cargo has been considered. However, there are existing berths at Paradip Port that may continue to handle the clean cargo. Therefore, it may be clarified it the Project shall be provided exclusively for handling such cargo. Alternately, the expected annual cargo at Project should be decreased accordingly.

(v). The parcel size considered for various cargoes has not been mentioned or taken into consideration. Since the handling rate of cargo is significantly influenced by the parcel size, the same may be mentioned and taken into consideration.

(vi). The GRT values for various vessels for different cargoes have been assumed for calculation of the "Berth hire per GRT hour". These GRT values, do not commensurate with the handling rate assumed for quay capacity since the cargo handling rate is dependent on the parcel size.

(vii). While computing number of days required for handling the volume of clean cargo, the annual handling has been divided by the handling rate of the respective cargo. It may be clarified if the berthing/deberthing time of a vessel (usually 4-6 hour/vessel) has been taken into consideration. This will significantly influence the berth occupying and optimal quay capacity of the Project.

(viii). In the formula for calculation of "Optimal Quay Capacity" the number of days considered is 596 days, that is the total number of days for handling the estimated volume of cargo. This may not be equivalent to the total number of operational days. The rationale for considering 596 days may be provided.

(ix). The 5% of miscellaneous costs considered for estimation of Capital Cost appears underestimated assuming it takes into consideration all contingencies, cost of studies, environmental protection works, taxes, duties and other financial costs.

(x). The 5% of miscellaneous costs considered for estimation of Operating Cost appears underestimated assuming it takes into consideration all contingencies, PMC, environmental and other financial costs.

(xi). The nature of cargo proposed to be handled under clean cargo varies from fertilizer to pig iron to sugar. The varied nature of cargo will lead to higher operating cost. Further, the turnover of the Project will also depend on the stackyard area and evacuation infrastructure proposed. Therefore, the miscellaneous cost of handling clean cargo may be increased to 10%. Similarly details of the stackyard area and evacuation infrastructure (road/rail connectivity) be taken into consideration for determining the Optimal Capacity of the Project.

(xii). As per the details provided for the foreign and coastal cargo handled by PPT in the last 5 years, it is observed that there is a sudden increase in the percentage of the coastal cargo from Year 2007 to year 2008. The coastal cargo trend for Year 2009 also be taken into consideration to determine if the trend of increase in coastal cargo continues. Consequently the share of coastal cargo may be increased from 35% to 40%.

M/s. Lanco Infratech Ltd (LIL)

(i). Project envisages a berth length of 450 m length which is mandatory to be built by the developer. It is to be known whether any phasing of the berth construction can be made in line with the cargo demand.

(ii). In absence of detailed drawing it is difficult to estimate the civil cost component of 450 m berth.

(iii). Procuring 2 RMQC, 6 RTGC at the beginning of the project will not advisable as the containers growth will pick up slowly and for atleast first 5 years these equipments will be mostly idling. It will be more prudent in the beginning to use mobile harbour cranes for handling containers and 3 RTGS can be procured.

(iv). The expected annual demand of containerized cargo of 1,50,000 can not be achieved at the initial 5-6 years from the present level of 5000 containers per year as growth of containers volume takes place in a Greenfield situation slowly. As for example, the Vizag container terminal at Visakhapatnam Port Trust took a long time to reach a level of 50,000 containers.

(v). The handling rate of 4000 tons per day for iron and steels and 10000 tons foodgrains & finished fertilisers appears to be very high.

(vi). It is not known on what basis the cost of berth apron & approach is considered 10% of cost of berth construction. The utilities incase of container operations is very high and not Rs.3.3 crores. The cost of TT for handling containers itself will be more than Rs.8 crores. The cost of container cargo component is required to be more realistic.

(vii). The mobile harbour crane and crawler crane will be operated by diesel and hence there should be no electric power requirement for

these 2 types of equipment. The power requirement shall be for the use of RMQC only.

(viii). The handling charges for clean cargo component should be 96% instead of 90% as there would not be enough space for storage area for storing cargo beyond 15 days free days.

(ix). The composition of total cargo traffic of 65 : 35 between foreign and coastal cargo should not be on total cargo but the composition should be only on clean cargoes and containers otherwise it will be skewed.

(x). The proposal should also include transshipment and Reefer containers handling and storage charges.

Consortium of Vadinar Oil Terminal Ltd and Essar Bulk Terminal Ltd

(i) Calculation of Optimal Capacity of Terminal

(a). The handling rate for other clean cargo is taken as 10,000 ton/hr by PPT, which as per Annex V of TAMP notification is the handling rate of Dry Bulk cargo – Food Grains & Fertilisers. As per PPT `Other clean cargo' which is expected to be handled at this terminal is aluminum ingots, pig iron, finished fertilisers, food grains and sugar. Out of these aluminum ingots and pig iron cannot be considered as Dry bulk but as other break bulk cargo. Consequently a handling rate of 2500 tons/hr should be considered for these products. Finished fertilisers, Food grains and sugar in bulk form can be assumed to be handled at a rate of 10,000 tons/hr. But if fertilisers, food grains and sugar is imported in bagged condition then again the handling rate for other break bulk i.e. 2500 tons/hr should be used as opposed to 10,000 tons/hr. Hence at this stage it is important to segregate `Other Clean Cargo' further into `Dry Bulk and Break Bulk' to correctly estimate the Terminal Capacity.

(b). Cargo Handling charges are worked out based on Optimal Terminal Capacity which is 70% of the maximum terminal capacity applied to all the years of operation right from day one. However, the capacity utilization cannot be ramped upto 70% from the very first year itself. Industry practice and past experience shows that the capacity utilization ramp up happens over a period of time. Moreover, the operations face initial teething problems, and take time to stabilize. Therefore, the capacity utilization shall be kept at lower levels in the initial years (say 30% in the first year ramping upto 40% in second year, 50% in third year, 60% in fourth year and thereafter at 70%).

(c). As per annex V of TAMP guidelines for a single berth the optimal capacity of the terminal is worked as per the below formula.

Optimal Capacity = 0.7(S1% x P1 + S2% x P2…..) x 365

While PPT has considered the following formula.

PPT Formula = 0.7(S1% x P1 + S2% x P2…..) x 596

This is incorrect and will exceed berth occupancy of 70% as envisaged in TAMP guidelines for port projects.

(d). Considering two berth operation the number of berth days available for multipurpose terminal is as follow:

Berth days available at 70% berth occupancy = 2 berths x 0.7 x 365 = 511 days

As given by PPT in their proposal the time taken to handle the expected annual traffic for the year 2014-15 (Total cargo of 5,075,000 tons) is 596 days. This exceeds the 511 berth days available at 70% berth occupancy.

Hence, the Terminal capacity of 5.0 mmtpa as estimated in the proposal is incorrect and needs to be revised.

(ii). Calculation of Capital Cost Estimate

(a). We presume the capital cost and operating cost estimates given in the proposal are only indicative, and therefore, the tariff workings are also indicative. As the cost estimates are not based on Detailed Engineering and prevalent cost of handling equipments etc., the capital cost cannot be accurately estimated at this stage. Therefore, the actual cost to completion and actual operating costs will be taken into account while fixing the final tariff.

(b). The capital cost estimate is based on today's item rates and does not take into account any provision for escalation on account of inflation and price escalation even though the project would be implemented over a period of 2-3 years. A provision of atleast 25% should be considered.

(c). The capital cost is based on estimates and is not backed by detailed engineering. Therefore, provision for Contingency shall be made in the Capital Cost at the rate of atleast 15% to provide for unforeseen situations and as margin for error in estimation. PPT has considered just 5% (Rs. 16.88 cr.) in their proposal which is grossly inadequate.

(d). The provision of 5% under the head "Miscellaneous" is quite low considering the fact that this includes costs such as pollution control, fire fighting equipment, upfront payments, Interest during Construction (IDC), working capital margin, miscellaneous equipment, power supply, lighting etc. For example, considering a three year construction schedule, the IDC alone works out to over

20%. Therefore, the provision under the head “Miscellaneous” shall be atleast 30%.

(e). The return on capital employed at 16% p.a. is quite low. The return on capital employed shall be enhanced to atleast 20% p.a. in order to make project attractive and bankable.

(f). Capital cost estimate does not take into account cost of equipment erection and commissioning fees etc. which forms a necessary and substantial amount of the project cost.

(g). The estimation of Capital cost (excluding berth) for containerized cargo does not take into account the cost of RMGC for loading containers on rail rakes, the 5% of IT system cost and 10% of other cost including IDC and financing cost as given in Annex I of TAMP guidelines.

(h). The Estimation of Capital Cost (excluding berth) for other clean cargo does not take into account the cost of fork lifts and pay loaders as given in TAMP guidelines in spite of the fact that both dry bulk and break bulk cargo will be handled at the berth.

(i). As per Table 2 of PPT proposal the total cost of engineering + PMD + Legal charges + IDC + contingency including financing cost is given as Rs. 49.77 cr. (14.7% of the EPC cost). This is considered inadequate as the cost will be much more. The IDC itself is 20% of the EPC cost. Also since these form part of Capital cost, they should be fully considered while fixing upfront tariff. From the proposal it can be seen that these have not been considered fully. Only about Rs. 29.33 crores have been accounted for while fixing upfront tariff under the heads “Estimation of Capital cost (excluding berth)” & “Estimation of Capital cost of the berth”.

(iii). Calculation of Operating Cost

(a). The “other expenses” for container terminals having capacity of less than 0.5 million TEUs is 15% of the Gross Fixed Asset Value. In PPT’s proposal this has been considered as 5%.

(b). The land area of 12.25 hectares is considered for License rentals. PPT to clarify how much of this area is actually to be used for stackyard/storage and how much as waterfront area.

(c). The ground rent and miscellaneous charges calculated are based on the fact that all the containers handled at the port (i.e. 150,000 TEUs) will attract this charge which is incorrect. Normally less than 15% of containerized cargo attract such a charge while all other containers are cleared during the free period. Hence the assumption is wrong. Also normally no concession is given on

ground rent charges for coastal cargo. Concession is to be given only on container handling charges.

(d). As per the PPT traffic estimates 1,120,000 tons of `Iron and steel products' are expected to be handled while 1,630,000 tons of `other clean cargo'. Hence 40.72% of the total revenue requirement for other clean cargo component (Rs. 34.53 cr. Is expected from Iron and Steel while rest will be from Other clean cargo. PPT in their proposal has considered 60.87% instead of 40.72% which is incorrect.

(iv). The exact time when the Free Period for calculation of storage charges start and end should be clearly defined in the approved TAMP notification.

Federation of Indian Mineral Industries (FIMI)
&
M/s. Essel Mining & Industries Limited

(i). The capital dredging cost has been taken under the head "Supporting Infrastructure Cost" and not taken in the project cost. The same should be considered under the project cost in order to decide the servicing cost to the customers.

(ii). The proposed cargo handling rate of 4000 MT PWWD for Steel products and 10000 MT PWWD is very low as a result of which the per ton cost is increased. Proper set up should be made to have better rates which can enhance the efficiency in the system and the benefit of the same can be shared by port and users.

(iii). The ROCE considered is 16% which should not be more than 10-12% per annum which is normally being considered in private sector for such projects. In view of the proposed ROCE of 12% the new rates would be as below:

Sl. No.	Cargo	Tariff (In Rs)	
		Foreign	Coastal
1.	Containerized (per TEU) Handling Ground Rent	 3146 350	 1888 210
2.	Iron & Steel Products Handling Ground Rent	 174 19	 104 12
3.	Other Than Clean Cargo Handling Storage & Misc.	 77 9	 46 5

(iv). However the Berth hires charges of Rs.1.80 per GRT per hour is extremely high as compared to existing rate of Re 0.098 PGRT/HR (Coastal) and $0.0040 PGRT/HR (Foreign). The berth hire charges should be as per the existing SOR only.

(v). The tariff should be revised taking into consideration the higher efficiency rate of handling, ROCE of 12% (Industry Practice) and berth hire charges as per the prevailing rate at Paradip Port (as per SOR approved by TAMP).

Metal and Mineral Trading Corporation Limited (MMTC)

(i). The free period for storage and miscellaneous charges for import and export cargo be 15 days and 30 days respectively.

(ii). Evacuation / convergence from the port plot / at port plot depends mostly upon the rail. Therefore, importer / exporter should be given adequate time period for the same before levying any penalty.

(iii). Further to clarify the issue, export of cargo involves convergence of the required quantity at port plot, nomination of vessel by the buyer, allotment of berth by port authority for loading of the vessel etc., which may not be completed by the free time 15 days as proposed in the draft tariff schedule for multipurpose berth.

(iv). As regard to tariff fixation, MMTC abide by the TAMP's norms.

2. A joint hearing in the case in reference was held on 9 December 2009 at the premises of the PPT in Bhubaneshwar. The PPT made a slide presentation highlighting the salient points of its proposal. At the joint hearing, PPT and the concerned users / organisation bodies and prospective applicants have made the following submissions:

Paradip Port Trust (PPT)

(i). The facility is envisaged mainly for handling clean cargo. Containers will be add-on. Though container volumes may be not significant, we have proposed full complement of container handling equipment in order to attract shipping lines. NALCO is expected to provide sufficient container volumes. Even if containers don't come, we will handle enough clean cargo.

(ii). The break up of foreign going to coastal is considered at 65 : 35 based on our judgment of future pattern of coastal trade, particularly the anticipated linkage between Paradip and Kolkata/Haldia.

(iii). We can consider stepping up of capacity in phases.

Kalinga Steamship Agents' Association & SCI

We have given written comments. Please consider them.

MMTC, Orissa Mining Corp., Jindal & Essel

We have no specific comments. TAMP may follow its guidelines.

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