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**Tariff Authority for Major Ports**

G No. 347

New Delhi,

30 December 2010

**NOTIFICATION**

In exercise of the powers conferred by Section 48 of the Major Port Trusts Act, 1963 (38 of 1963), the Tariff Authority for Major Ports hereby disposes of the proposal received from the Visakhapatnam Port Trust for setting upfront tariff for mechanised handling of iron ore at Visakhapatnam Port Trust in pursuance of the guidelines for upfront tariff setting at Major Port Trusts which was notified 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/32/2010-VPT**

Visakhapatnam Port Trust

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Applicant

**O R D E R**

(Passed on this 29<sup>th</sup> day of November 2010)

This case relates to a proposal dated 17 July 2010 received from the Visakhapatnam Port Trust (VPT) for fixation of upfront tariff for mechanical iron ore handling facilities at West Quay-1 (WQ-1) berth in the inner harbour of Visakhapatnam Port on Design, Built, Finance, Operate, and Transfer (DBFOT) basis.

2.1. The Ministry of Shipping, Road Transport and Highways (MSRTH) announced the guidelines for upfront tariff setting for Public Private Participation (PPP) projects at Major Ports vide its communication No.PR-14019/25/2007-PG dated 12 February 2008. In compliance with the directions from the MSRTH under Section 111 of the Major Port Trusts Act 1963, this Authority notified the guidelines for upfront tariff setting vide Notification No.TAMP/52/2007-Misc. in the Gazette of India on 26 February 2008.

2.2. VPT has subsequently, vide letter dated 22 July 2010 forwarded a copy of recent electricity bill to substantiate the unit rate of power and has also furnished the basis followed for estimation of civil cost along with rate analysis and the Schedule of Rates of the Engineering Department of the port.

3.1. The highlights of the proposal are as follows:

(I). Mechanisation of the WQ-1 berth includes:

- (a). Unloading of cargo received through wagon at dumper house and transferring the same to the stackyard for storage upto 15 days.
- (b). Reclaiming from the stackyard and loading onto ships.

(II). **Physical features:**

- (a). Length of the proposed berth - 280m
- (b). Apron width - 22.5m
- (c). Draft - (-) 16.10m below CD ultimately to allow 14.0m draft vessels in stages duly synchronizing with the dredging plans of VPT.

(III). **Allotment of land:**

- (a). It is proposed to allot 28.87 acres (1,16,864 sq. mtrs.) area of land for storage of cargo and allied facilities like operational / administration buildings / approach roads / dumper houses and conveyor galleries, etc., in continuation to the back up area from East side to North East side of the berth.
- (b). Out of the total area proposed to be allotted, 18.0 acres of land i.e. 72,864 sq. mtrs. is proposed to be allotted for stacking the cargo.

(IV). **Optimal Terminal Capacity:**

(a). Optimal Quay Capacity:

The optimal quay capacity is assessed at 8712550 (8.71 Million Tonnes Per Annum)

- The share of vessels upto 45,000 DWT and 45,001 to 80,000 DWT is considered in the ratio of 50:50 duly considering the total iron ore projection both at outer harbour and inner harbour in the ratio of 84:16 with further apportionment of panamax vessels into outer harbour and inner harbour considering users requirement.
- No capesize vessels are envisaged at this berth as inner harbour can accommodate vessels of 14 mtrs draft.
- In line with the norm prescribed in the guidelines, the ship day output for loading iron ore vessels upto 45,000 DWT is considered at 25,000 tonnes per day.
- The ship day output norm for panamax vessels is prescribed at 55,000 tonnes per day based on the norm of 2 ship loaders. As against the norm prescribed, the port has considered the ship day output for panamax vessels (in the range of 45,001 to 80,000 DWT) at 43,200 tonnes per day on the ground that it proposes to deploy 1 ship loader as against 2 ship loaders prescribed in the guidelines. It has furnished following computation for arriving at ship day output of 43200 tonnes / day for 1 ship loader with handling capacity of 3000 Tonnes Per Hour (TPH):  
  
3000 TPH x 60% operational efficiency x 24 hours = 43200 TPH
- Accordingly, the optimal quay capacity is assessed at 8.71 Million Tonnes Per Annum (MTPA).

(b). Optimal Yard Capacity:

- Out of the 1,16,864 sq.mtrs of land envisaged for development of the project, 72,864 sq. meters of land is earmarked for development of stackyard.
- Stacking factor is considered at 15 tonnes per sq. meter as per the stacking norms prescribed in the guidelines.
- The guidelines prescribes the plot turnover norm of 12 and free period of 25 days. As against that, the port has considered turnover ratio of 14.3. It has stated that the dwell time norm is considered as 21 days which gives plot turnover ratio of 14.3 for optimal utilization of stack yard and quick turn time of cargo.
- Accordingly, the optimal yard capacity is assessed at 7.66 MTPA.

(c). Optimal Terminal Capacity:

The optimal capacity of the terminal is considered at 7.66 MTPA being the lower value of the optimal quay capacity and optimal yard capacity.

(V). **Capital cost:**

- The capital cost of the project is estimated at Rs.272.43 crores. The break up of the capital cost is given below:

(Rs. in lakhs)

Sl. No.	Particulars	Estimated capital cost
(i).	<b>Civil Costs</b>	
1.	Storage yard development	1941.89
2.	Workshop area buildings	35.13
3.	Electrical sub-station buildings	41.92
4.	Railway lines, sidings & foundation for stacker, Reclaimer & ship loader	1375.41
5.	Approach Roads	555.15
6.	Conveyor galleries	2966.09
7.	Transfer Towers	116.70
8.	Dumper Houses	2429.06
9.	Miscellaneous, water supply, administrative buildings, power control room, stores, etc.	1279.11
	<b>Sub-total</b>	<b>10740.46</b>
(ii).	<b>Mechanical equipment</b>	
1.	Twin Wagon Tippler - 1 no.	2447.19
2.	Stacker cum Reclaimer - 3000 TPH	6523.58
3.	Ship loader 3000 TPH - 1 no.	2468.72
4.	Belt Conveyors - 1600 mm wide	2098.24
5.	Belt Conveyors - 1200 mm wide	975.48
6.	Metal detector and weighers (4+2 nos.)	56.65
7.	Pay loaders - 4 nos.	135.95
8.	Workshop equipment	113.30
9.	Electrical power & control switch gears	386.34
	<b>Sub-total</b>	<b>15205.45</b>
(iii).	Miscellaneous charges – [5% of (i). + (ii).] i.e. 5% * (10740.46 +15205.45)	<b>1297.30</b>
	<b>Total Capital Cost of the Project [(i) + (ii) + (iii)]</b>	<b>27243.21</b>

- The port has proposed the following handling equipments as per the norms prescribed namely, the pay loaders, belt conveyors, metal detector, workshop equipment and electrical power & control switch gears for assessing the capital cost.
- The estimation of the civil works is based on the schedule of rates as on 1 January 2010. For the items which are not covered under the schedule of rates the market rates prevailing as on January 2010 are considered. The mechanical equipments are estimated as per the budgetary offers.

(VI). The Return on Capital Employed (ROCE) is computed at 16% on the estimated capital cost.

(VII). Annual Operating Cost:

The Annual Operating Cost is estimated as per the norms prescribed in the guidelines.

(Rs. in lakhs)

Sl. No.	Group	Norms	Workings	Amount
(i).	Power	1.4 units per ton (unit rate of power of Rs.6.20)	1.4 * 6.20 * 76.58 lakh tones	664.72

(ii).	Repair and Maintenance				
	(a). Civil assets	1% of cost of all civil assets	1%* lakhs	Rs.10740.46	107.40
	(b).Equipments	2% of cost of all mechanical & electrical equipment	7%* lakhs	Rs.15205.45	1064.38
(iii).	Insurance	1% of Gross Fixed Asset Value	1%* lakhs	Rs.27243.21	272.43
(iv).	Depreciation				
	(a). Civil structures	As per companies Act	3.34% * lakhs	Rs.10740.46	358.73
	(b). Mechanical & Electrical equipments		10.34% * lakhs	Rs.15205.45	1572.24
(v).	License fee				
	(a). Area for storage	Rs.226.28 per sq.mtr.	72864 sq. mtrs.		
	(b). Conveyor corridor		24076 sq. mtrs.		
	(c). Dumper houses & other structures		19924 sq. mtrs.		
	Total		116864 sq. mtrs. * Rs.226.28/ sq. mtrs.		264.44
(vi).	Other expenses	5% of Gross Fixed Asset Value	5% * lakhs	Rs.27243.21	1362.16
<b>Total operating cost (i to vi)</b>					<b>5666.50</b>

(VIII). Annual Revenue Requirement:

Sr. No.	Particulars	Rs. in lakhs
1.	Total annual operating cost	5666.50
<b>2.</b>	<b>CAPITAL EMPLOYED</b>	<b>27243.21</b>
3.	16% Return on capital employed	4358.91
<b>Total Annual Revenue Requirement</b>		<b>10025.41</b>

(IX). The Annual estimated revenue requirement is apportioned following the norms prescribed in the guidelines as given below:

(Rs. in lakhs)				
Sl. No.	Particulars	Norms	Workings	Apportionment of estimated revenue requirement
(i).	Iron Ore Handling Charges	98%	(Rs.10025.41 lakhs x 98%)	9824.91
(ii).	Storage Charges	1%	(Rs.10025.41 lakhs x 1%)	100.25
(iii).	Miscellaneous Charges	1%	(Rs.10025.41 lakhs x 1%)	100.25
<b>Total Revenue Requirement</b>				<b>10025.41</b>

(X). Scale of Rates:

The upfront tariff proposed by the VPT to meet the estimated revenue requirement is as follows:

(a). Cargo handling charges:

Sl. No.	Commodity	Rate in Rupees	
		Foreign	Coastal *
1.	Iron Ore	128.30	128.30

\* Handling of iron ore is not entitled for coastal concession.

(b). Storage charges:

(i). Free period - 15 days

(ii). Storage charge beyond the free period is proposed as follows assuming that 20% of the cargo capacity will attract storage charge:

(Rate in Rs. per tonne per day or part thereof)

Sl. No.	Commodity	Rate for first 5 days for the balance cargo remaining after the free period	Rate for 6 <sup>th</sup> day to 10 <sup>th</sup> day for the balance cargo	Rate for 11 <sup>th</sup> onwards for the balance cargo
1.	Iron ore (all types)	1.51	3.02	6.04

(c). Miscellaneous charges for sweeping, dust suppression, environment, etc. proposed at Rs.1.31 per tonne.

(XI). The installation of mechanised facilities for handling iron ore is envisaged on the existing berth (WQ-1) under PPP model on DBFOT basis. The berth hire charges at the subject berth will accrue to the VPT as per its SOR.

3.2. The VPT has submitted the proposed Scale of Rates (SOR) and the feasibility report along with the proposal.

4. In accordance with the consultation process prescribed, the proposal dated 17 July 2010 and letter dated 22 July 2010 received from the VPT were circulated to the users / prospective applicants / major iron ore exporters (as forwarded by the VPT) as well as other users/ user organisations (from the approved list of users) seeking their comments. The comments received from the users / organisation bodies / prospective applicants / major iron ore exporters were forwarded to the VPT as feedback information. The VPT has furnished its remarks on comments of the users / organisation bodies / prospective applicants / major iron ore exporters.

5. Based on the preliminary scrutiny of the proposal, the VPT was requested to furnish information/clarifications on various points vide our letter dated 24 August 2010. The VPT vide letter dated 18 September 2010 has furnished clarifications to the queries raised. It has also furnished revised calculations in two Scenarios (i). Scenario-A - envisaging installation of one ship loader and (ii). Scenario-B - envisaging installation of two ship loaders. A summary of the queries raised by us vide letter dated 24 August 2010 and the clarifications furnished by the VPT vide letter dated 18 September 2010 are tabulated here below:

Sl. No.	Queries raised by us	Reply furnished by VPT																																																																																																																													
(i).	Average DWT, GRT and parcel size of different categories of iron ore vessels viz. capsizes, panamax, handymax handled by the VPT during the last three years 2007-08 to 2009-10 may be furnished with segregation for vessels handled at inner harbour / outer harbour at the Visakhapatnam Port Trust.	<p>Details of Average DWT, GRT and parcel size of Iron ore vessels at Inner Harbour (IH) and Outer Harbour (OH) are furnished below:</p> <table border="1"> <thead> <tr> <th rowspan="2">Year &amp; Size of vessels</th> <th colspan="2">No of vessels</th> <th colspan="2">Avg. DWT</th> <th colspan="2">Avg. GRT</th> <th colspan="2">Avg. Parcel (Tonnes)</th> </tr> <tr> <th>IH</th> <th>OH</th> <th>IH</th> <th>OH</th> <th>IH</th> <th>OH</th> <th>IH</th> <th>OH</th> </tr> </thead> <tbody> <tr> <td>2007-08</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>- Upto 45000 DWT</td> <td>115</td> <td>3</td> <td>25946</td> <td>44527</td> <td>15838</td> <td>26345</td> <td>16179</td> <td>19590</td> </tr> <tr> <td>- 45,001-80,000 DWT</td> <td>65</td> <td>147</td> <td>52495</td> <td>59658</td> <td>29835</td> <td>33077</td> <td>34123</td> <td>46358</td> </tr> <tr> <td>- 80,001 DWT above</td> <td>--</td> <td>53</td> <td>--</td> <td>130670</td> <td>--</td> <td>69227</td> <td>--</td> <td>113932</td> </tr> <tr> <td>2008-09</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>- Upto 45000 DWT</td> <td>77</td> <td>1</td> <td>28270</td> <td>42717</td> <td>17425</td> <td>24953</td> <td>18056</td> <td>36185</td> </tr> <tr> <td>- 45,001-80,000 DWT</td> <td>58</td> <td>156</td> <td>53377</td> <td>59303</td> <td>30123</td> <td>32767</td> <td>35293</td> <td>48569</td> </tr> <tr> <td>- 80,001 DWT above</td> <td>--</td> <td>51</td> <td>--</td> <td>126602</td> <td>--</td> <td>66835</td> <td>--</td> <td>114596</td> </tr> <tr> <td>2009-10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>- Upto 45000 DWT</td> <td>157</td> <td>5</td> <td>27959</td> <td>41757</td> <td>17359</td> <td>24884</td> <td>20229</td> <td>27074</td> </tr> <tr> <td>- 45,001-80,000 DWT</td> <td>61</td> <td>155</td> <td>55286</td> <td>60466</td> <td>31347</td> <td>33380</td> <td>35890</td> <td>47709</td> </tr> <tr> <td>- 80,001 DWT above</td> <td>--</td> <td>44</td> <td>--</td> <td>113936</td> <td>--</td> <td>60072</td> <td>--</td> <td>95630</td> </tr> </tbody> </table>	Year & Size of vessels	No of vessels		Avg. DWT		Avg. GRT		Avg. Parcel (Tonnes)		IH	OH	IH	OH	IH	OH	IH	OH	2007-08									- Upto 45000 DWT	115	3	25946	44527	15838	26345	16179	19590	- 45,001-80,000 DWT	65	147	52495	59658	29835	33077	34123	46358	- 80,001 DWT above	--	53	--	130670	--	69227	--	113932	2008-09									- Upto 45000 DWT	77	1	28270	42717	17425	24953	18056	36185	- 45,001-80,000 DWT	58	156	53377	59303	30123	32767	35293	48569	- 80,001 DWT above	--	51	--	126602	--	66835	--	114596	2009-10									- Upto 45000 DWT	157	5	27959	41757	17359	24884	20229	27074	- 45,001-80,000 DWT	61	155	55286	60466	31347	33380	35890	47709	- 80,001 DWT above	--	44	--	113936	--	60072	--	95630
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(ii).	<p><u>Optimal Capacity:</u></p> <p>(a). <u>Optimal Quay Capacity:</u></p> <p>(i). The number of ship loaders presently deployed for the mechanised iron ore handling at the</p>	<p>At present, one shiploader of 8,000 TPH is deployed in the outer harbour for loading iron ore through mechanized means. The average productivity achieved during last 3</p>																																																																																																																													

port and the average productivity achieved in the last three years 2007-08 to 2009-10 may be furnished for each categories of such vessels handled.

years for loading of iron ore by mechanical system is furnished below:

Year & Size of vessels	OSBD (In tonnes)
<b>2007-08</b>	
- Upto 45000 DWT	15167
- 45,001-80,000 DWT	32424
- 80,001 DWT above	43039
<b>2008-09</b>	
- Upto 45000 DWT	25732
- 45,001-80,000 DWT	35358
- 80,001 DWT above	48265
<b>2009-10</b>	
- Upto 45000 DWT	25104
- 45,001-80,000 DWT	32026
- 80,001 DWT above	38752

(ii). Neither the proposal nor the feasibility report explains or shows how share of vessels upto 45,000 DWT and 45,000 to 80,000 DWT are arrived at 50:50 based on the total iron ore projections at outer harbour and inner harbour in the ratio of 84:16. Please elaborate.

The vessel distribution pattern of the bulk carrier fleet profile in the range of 40000 to 80000 DWT is 16:84 only as shown below:

Size of the vessels (in DWT)	No. of vessels	Percentage of share
Handymax 40,000 – 45,000	472	16%
Panamax 45000- 80000	2441	84%
<b>Total</b>	<b>2913</b>	<b>100%</b>

(iii). It is observed that in the other proposal relating to upfront tariff for i.e. handling steam coal at EQ1 berth and another proposal for handling thermal coal in combination with steam coal at EQ1A berth, the VPT had assumed the share of panamax vessels i.e. 45000 DWT to 80000 DWT at 84% and handy max vessel i.e. upto 45000 DWT at 16% reportedly based on the Clarkson Directory of 2008. Whereas in the current proposal, the VPT has assumed the share of vessels upto 45,000 DWT and 45,000 to 80,000 DWT at 50: 50. The reasons and basis for adopting the share of panamax and handy max vessel different from the coal terminals may be explained with the analysis done by the port in this regard.

In case of VPT, about 25% of iron ore is handled in cape size vessels. As such, the vessel distribution have to be derived, duly taking into consideration number of vessels deployed for capesize vessels also. In such a case, the following scenario would emerge.

Size of the vessels (in DWT)	No. of vessels	Percentage of share
Handymax 40,000 – 45,000	472	13%
Panamax 45000- 80000	2441	65%
Capesize 80000 - 200000	826	22%
<b>Total</b>	<b>3739</b>	<b>100%</b>

The basis for reckoning 50:50 in the earlier proposal is as below:

Total cargo projection	19.8 MT			
Less 25% capesize vessels (based on actuals)	4.9 MT		No. of vessels	% Share
	<b>14.9 MT</b>			
Handymax vessels (16%)		<b>2.4 MT</b>	<b>67</b>	<b>50</b>
Panamax Vessels (84%)	12.5 MT	<b>4.9MT</b>	<b>68</b>	<b>50</b>
Less cargo allocated to OH on account of ESSAR	7.6 MT			
	<b>4.9 MT</b>			

As observed by TAMP and also keeping in view the dredging proposals under implementation, it is proposed to reckon the share of Handymax vessels as 33% and Panamax vessels as 67% based on the following consideration.

- Traffic for Handymax : 2.4 MT
- Traffic for Panamax : 4.9 MT
- Total : 7.3

Thus the share of Handymax and Panamax is 33: 67

		<p>Accordingly, in the revised proposal optimal quay capacity has been calculated duly reckoning 33:67 for Handymax and Panamax vessels respectively. In any case adoption of 16:84 in the current proposal may not be realistic, as in the case of earlier proposal as the iron ore traffic is handled at this port in capesize vessels also.</p>
	<p>(iv). The feasibility report in page 15 states that bulk carriers over 60000 DWT are expected to increase phenomenally. Further, the proposal states that the VPT has also plans to deepen the draft to allow 14 mtrs. draft vessel to call at the terminal. Thus, there can be a change in the present vessel pattern in future at the inner harbour with the new facility proposed to be developed for iron ore handling.</p> <p>When a new mechanised iron ore facility is developed at the inner harbour, it is possible that the smaller handy max vessels may find it cost effective to consolidate the cargo in panamax and consequently the share of panamax vessel at the inner harbour may increase. Outer harbour could predominantly be used by the bigger cape size vessels. Please clarify proposal of the port factors such a scenario.</p>	<p>Considering overall projection of 19.8 MT, share of Handymax is only 12% and is in line with the deployment pattern furnished above.</p>
	<p>(v). In case of handy max vessel, the port has assumed that the one 3,000 tonnes capacity ship loader proposed to be deployed can achieve the handling rate of 25000 tonnes per day at the level of the norms stipulated in the guidelines which is prescribed for two numbers of ship loaders.</p> <p>But, for panamax vessel the port has worked out the handling rate separately on stand alone basis with reference to the technical specification of the equipment. It is not clear why the presumption of the achieving the loading rate as per the norms in case of the handy max vessel is not extended for panamax vessels. Please clarify.</p>	<p>The output rate of 25000 tonnes per day is considered for Handymax vessels based on the actual output achieved with mechanized system at outer harbour for that size of the vessels. Regarding reckoning 43200 tonnes per day for Panamax Vessels the following is the basis.</p> <ul style="list-style-type: none"> <li>• Capacity of the ship loader = 3000 TPH</li> <li>• Efficiency factor = 60% (in line with formula adopted for the earlier proposals i.e. WQ-7 &amp; WQ-8</li> <li>• Output rate = 3000 TPH X 0.6 X 24hrs = 43200TPD</li> </ul> <p>It is pertinent to mention that the 70% of the utilization factor provided in the formula for optimal quay capacity calculation will take care of the berth utilization factor i.e. 365 x 70% as the vessels arrived at random. This will not address the efficiency of the ship loader at the berth as a minimum 4 hours time will be lost per day for operational requirements like hatch changing, draft survey, initial arrangements etc. Keeping this in view 60% efficiency factor is reckoned above.</p>
	<p>(vi). For panamax vessel, a reduced loading rate of 43200 tonnes per day is considered based on ship loader capacity of 3000 Tonnes per hour and 60% efficiency as against the prescribed norm of 55000 tonnes / day. Explain the basis of considering the efficiency factor at 60% of the capacity of the ship loader particularly in the light of the fact that formula for optimal quay capacity already</p>	<p>In this context, it is also pertinent to mention that the iron ore mechanized system at outer harbour which is commissioned in the year 1976 has only one ship loader of 8000 TPH with 3 different streams of supply of ore from various stockpiles. Based on the experience, it is felt that one ship loader of higher capacity, it is possible to achieve desired levels of output. Accordingly, only one ship loader was proposed.</p>

	<p>provides for 70% utilisation factor which should take care of the efficiency factor of the equipment.</p>	<p>However, if two ship loaders of lesser capacity are installed in line with TAMP guidelines, the capital cost of the proposal would work out to Rs.295.51 crores and the handling charges per tonne works out to Rs.130.79. Accordingly, the proposals has been submitted in two scenarios wherein scenario – A envisages installation of one ship loader with a capital cost of Rs.269.59 crores and scenario – B envisages installation of 2 ship loaders with capital Rs.295.51 crores. Under scenario – A tariff for handling charges per tonne works out to Rs.118.77 and Rs.130.79 per tonne under scenario – B.</p>
	<p>(b). <u>Optimal Yard Capacity:</u></p>	
	<p>(i). The actual average stacking factor achieved by the port during the last 3 years in respect of iron ore stacked in the port may be furnished.</p>	<p>Average stacking factor achieved by VPT during previous three years in respect of iron ore ranges between 14T to 16T per Sq. mtrs.</p>
	<p>(ii). The actual average dwell time of iron ore at the port for the last three years may also be furnished.</p>	<p>Average dwell time of iron ore for the last three years is as follows:</p> <p>2007-2008 : 24 days  2008-2009 : 24 days  2009-2010 : 21 days</p> <p>It is seen that the dwell time of 24 days is achieved consistently for 2 years i.e. 2007-08 and 2008-09. During the year 2009-10 due to decline in traffic through mechanized system as the pressure has been slightly eased and dwell time was 21 days. Since the present proposal envisages higher volume at IH with higher output rates compared to the present throughput, dwell time of 24 days is considered reasonable.</p>
	<p>(iii). Out of total area of 116864 square metres of land proposed to be allotted to VPT for development of cargo storage and allied facilities, 72864 square metres of area is the area earmarked for stackyard development. When the exact stackyard area of 72864 sq. mtrs. is considered for yard capacity calculation, again reckoning with 70% factor for stacking area means effectively 51004.8 hectares will be utilised for stacking the cargo (i.e. 43.6% of the total area). Furnish the detail land use plan for remaining 65859.2 square metres.</p>	<p>The proposed area of 116864 Sq.M is further reviewed in light of TAMP's observations and 72864 Sq.M is only proposed to be allotted for development of stackyard.</p>
	<p>(iv). The quay capacity is assessed at 8.71 Million Tonnes Per Annum (MTPA) but the optimal capacity of the terminal is pegged at 7.66 Million Tonnes Per Annum as yard capacity is the limiting factor. It is relevant to mention that the upfront tariff guidelines do not prescribe any norm nor does it place any restriction on the port on area to be allotted to the operator for storage purpose. The expectation is to consider area required to handle the anticipated capacity. In view of the gap observed between the optimal quay and optimal</p>	<p>Based on the above factors quay capacity is now assessed as 11.52 MTPA and yard capacity is 8.14 MTPA. The capacity of the terminal which is lower of the two i.e. 8.14 MTPA is considered reasonable keeping in view the demand fluctuation in iron ore export market. In fact it is on higher side.</p>

	yard capacity, the port may examine the possibilities of improving the yard capacity by increasing the area to be allotted for storage and also by improving the other parameters considered in assessing the optimal yard capacity.	
(iii).	<u>Capital Cost:</u>	
	(a). With reference to the proposal of the port is assuming one loader the following points may be clarified:	
	(i). The VPT has considered 1 ship loader as against the prescribed norm of 2 numbers. However, the number of other complimentary equipment such as stacker-cum-reclaimer, payloader, etc. are proposed as per the norms prescribed in the guidelines. The specific reason for deviation made by the VPT from the guidelines with reference to number of ship loader may please be explained.	As suggested two ship loaders have been considered in the Scenario-B and revised calculation is furnished.
	(ii). Confirm that not more than one loader can technically be deployed at the proposed iron ore terminal and furnish the technical feasibility report done by the port in this regard.	Will be addressed appropriately based on the TAMP's approval.
	(iii). Confirm that the Concession Agreement to be signed with the Concessionaire will permit deployment of only one loader by the operator at the terminal. If not, then it has to be recognised that major part of civil cost and the complementary equipment are already estimated in the upfront tariff calculation. Deployment of the second loader by the Concessionaire can increase the capacity of the terminal manifold resulting in undue advantage to the operator. The VPT may examine this point while replying the query.	
	(b). The upfront tariff guidelines stipulates deployment of 2 wagon tippers and 2 cranes apart from other equipment listed therein. As against this, port has considered 1 twin wagon tippler. Cranes are not included in the capital cost estimation. The reasons for the deviation in the number and nature of equipment from the normative level and equipment prescribed in the guidelines may be justified.	Deployment of twin wagon tippler instead of 2 nos. wagon tippers will meet the requirement with higher productivity and is cost effective.  With respect to 2 nos. cranes, as the proposal envisages integrated mechanized loading of iron ore, the deployment of cranes is felt not necessary.
(c). No relation can be drawn from the rate analysis and the basis of civil cost estimation furnished by the VPT vide letter dated 22 July 2010 and the capital cost estimation considered in the upfront tariff	The rates for some of the items are arrived based on the similar type of works executed earlier in VPT with an escalation which is matching with the cost arrived as per the prevailing market rates with escalation are considered. Therefore the rates considered thereon are justified since the same are matching with the prevailing market rates.	

	<p>calculation. It is understood from the details furnished that for some of items the rates of 2004-05 and 2007-08 are considered with some escalation. The port is requested to update all the civil and equipment cost estimates based on the prevailing market rate, budgetary quotations, and rate analysis.</p> <p>Copies of supporting documents/ calculation/ rate analysis / budgetary quotations, market rates may be furnished to justify the estimates of both civil and equipment cost giving proper references in the statement for ease of understanding.</p>	
(iv).	<p><u>Operating Cost:</u></p> <p>(a). The unit rate of power cost considered in the upfront tariff calculation of multi-purpose cargo terminal in February 2009 and other upfront tariff cases of the VPT was Rs.6.20. The port has adopted the same unit rate in the instant proposal. A copy of the electricity bill of APEPDCL for the month of June 2010 furnished by the port show that the unit cost of power is Rs.6.26. The VPT may, therefore, update the power cost based on the prevailing rate instead of relying on the unit rate of February 2009.</p> <p>(b). The guidelines for upfront tariff stipulate that lease rent for port land is to be estimated based on the rate prescribed in the Scale of Rates of the respective major ports. The lease rent of land belonging to the VPT was last approved by the Authority vide Order No.TAMP/41/2005-VPT on 22 April 2008 for the quinquennium 1998-2003 and 2003-08. The method adopted by the VPT in estimating the lease rent applying 2% annual increase beyond the period April 2008 is not found to be in line with the norms prescribed in the upfront tariff guidelines. The lease rent approved by the Authority is due for revision since April 2008. But, the port has not yet filed any proposal for revision of lease rental in line with the guidelines of the Government on land policy of major ports even after lapse of more than one year despite specific mention while dealing with the other upfront tariff cases of the port also.</p> <p>(c). The lease rental for Zone II-A2 approved by the Authority in Order No.TAMP/41/2005-VPT dated 22 April 2008 is Rs.168 per square metre per annum from 1 April 2003 for the</p>	<p>The unit rate of power cost updated as Rs.6.26 per unit in the modified proposal.</p> <p>The license fee has been worked duly considering base lease rent as approved for quinquennium of 2003-08 with an annual escalation @ 2% per annum from 2003-04 to 2009-10 as considered by TAMP while fixing upfront tariff for other BOT projects of VPT.</p> <p>The lease rental for Zone II-A2 approved by the Authority is Rs.168 per sq. yard and not for sq. meter as stated by TAMP. This in-turn works out to Rs.200.93 per sq. mtrs. (168 x1.196 mtrs). With the assumed annual escalation of 2%, the rate of Rs.200.93 per sq. mtr. works out to</p>

	<p>quinquennium 2003-2008. Even if it is assumed that the port has applied the applicable annual escalation in the rate for the period beyond April 2008, the rate comes to Rs.198.66 per sq. metre per annum and not Rs.264.44 per sq. metre per annum as considered by VPT.</p>	<p>Rs.226.28 per sq. meter as on 2009- 2010. Accordingly, total lease rental for an area of 116864 sq. mtrs. works out to Rs.264.44 lakhs.</p> <p>In the present proposal considering 72864 Sq. mtrs. lease rentals works out to Rs.164.88 lakhs which is as below:</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Area</th> <th>Basic Value per Sq. yard (in Rs.)</th> <th>Incl. 2% hike per Sq. mtrs.</th> <th>Rent @ 6% per Sq. Mtrs. (in Rs.)</th> <th>License fee (Rs. in lakhs)</th> </tr> </thead> <tbody> <tr> <td>II-A2</td> <td>72,864</td> <td>3348</td> <td>3771</td> <td>226.28</td> <td>164.88</td> </tr> </tbody> </table>	Zone	Area	Basic Value per Sq. yard (in Rs.)	Incl. 2% hike per Sq. mtrs.	Rent @ 6% per Sq. Mtrs. (in Rs.)	License fee (Rs. in lakhs)	II-A2	72,864	3348	3771	226.28	164.88
Zone	Area	Basic Value per Sq. yard (in Rs.)	Incl. 2% hike per Sq. mtrs.	Rent @ 6% per Sq. Mtrs. (in Rs.)	License fee (Rs. in lakhs)									
II-A2	72,864	3348	3771	226.28	164.88									
(v).	<p><b>Storage charge</b></p> <p>(a). The guidelines for iron ore terminal prescribe free period of 25 days which is linked to the annual turnover norm of 12. Nowhere does the guideline prescribe dwell time norm of 21 as stated by the VPT in its proposal.</p> <p>(b). Considering the annual turnover of 14.3 assumed by the VPT, the dwell time of cargo will be 25.5 days and not 21 as considered by the VPT in the calculation. Based on the average dwell time of 25.5 days and free period of 15 days proposed by the port, the percentage cargo capacity likely to attract storage will be around 41.1%. The storage calculation furnished by the port may be modified in the light of the above points. Please furnish detailed working in this regard.</p>	<p>The turnover ratio works out to 15.2 as explained below:</p> <ul style="list-style-type: none"> <li>No. of days : 365 days</li> <li>Dwell time : 24 days</li> <li>Turnover ratio: 15.2</li> </ul> <p>As stated above, Annual turnover of 15.2 (365/24 days) is based on the dwell time of 24 days. The percentage of cargo that attracts storage charges is worked as follows:</p> <p>Dwell time : 24 days  Free period : 15 days  Stay of vessel at berth : 1.67 days  No. of days that attract storage : 7.33 days  (Dwell time 24 days – free period 15 days – stay at berth 1.67 days)  % of cargo that attract storage : 30%  (7.33 days / 24 days * 100)</p>												
(vi).	<p>The VPT may please confirm whether the entire iron ore for export is expected to be renewed only by rail mode. If the VPT envisages receipt of iron ore for export by both rail and road, then separate handling charges may be proposed for iron ore received by rail and road.</p>	<p>As far as Port of Visakhapatnam is concerned, the entire cargo for export is envisaged through rail movement only.</p>												

6. To summarise, the main modifications made by the VPT while furnishing its reply are given below:

- (i). The share of handymax vessel and panamax vessel is assumed as 33% and 67% respectively as against 50% each assumed in the original proposal for determining its Optimal Quay Capacity.
- (ii). The turnover factor is considered at 15.2 as against 14.3 considered in the original proposal. As per TAMP Guidelines, the free period norm is 25 days, which gives 12 turn rounds in a year. In the proposal, the dwell time is considered as 24 days as per the actual achieved consistently during 2007-08 and 2008-09, and turnover ratio is considered at 15.2.
- (iii). The port proposes to allot 72,864 sq. mtrs. of area to the operator as against 116864 sq. mtrs. of area envisaged to be allotted in the original proposal.

- (iv). The VPT has furnished revised calculations in two Scenarios -- Scenario-A - envisaging installation of one ship loader and Scenario-B - envisaging installation of two ship loaders. A summary of the optimal capacity, capital cost, estimated revenue requirement in the two Scenarios furnished by VPT is tabulated below:

Sl. No.	Particulars	Scenario-A (one ship loader)	Scenario-B (two ship loaders)
I.	<b>Optimal Capacity</b>		
(a).	Optimal Quay Capacity		
(i).	Share of Vessels		
	(a). Share of Handymax Vessels (Vessel upto 45,000 DWT)	33%	33%
	(b). Share of Panamax Vessels (Vessel 45,000 to 80,000 DWT)	67%	67%
(ii).	Handling Rate (Tonnes / day)		
	(a). Handymax Vessels (Norm - 25,000 Tonnes/day)	25,000	25,000
	(b). Panamax Vessels (Norm - 55,000 Tonnes/day)	43,200	55,000
	<b>Optimal Quay Capacity Million Tonnes per Annum (MTPA)</b>	<b>9.50</b>	<b>11.52</b>
(b).	<b>Optimal Yard Capacity</b>		
(i).	Area of the yard (in sq. mtrs.)	72,864	72,864
(ii).	Percentage of Stack yard area	70%	70%
(iii).	Stacking Quantity (in tonnes/ sq. mtrs.) (Norm - 15 tonnes/ sq. mtrs.)	15 T	15 T
(iv).	Turnover ratio (Norm - 12)	15.2	15.2
	<b>Optimal Yard Capacity Million Tonnes per Annum (MTPA)</b>	<b>8.14</b>	<b>8.14</b>
(c).	<b>Optimal Capacity of Terminal</b>	<b>8.14</b>	<b>8.14</b>
II.	Capital Cost	(Rs. in lakhs)	(Rs. in lakhs)
(a).	Civil Cost		
(i).	Storage yard development	1941.89	1941.89
(ii).	Workshop area buildings	35.13	35.13
(iii).	Electrical sub-station buildings	41.92	41.92
(iv).	Railway lines, sidings & foundation for stacker, Reclaimer & ship loader	1375.41	1375.41
(v).	Approach Roads	555.15	555.15
(vi).	Conveyor galleries	2966.09	2966.09
(vii).	Transfer Towers	116.70	116.70
(viii).	Dumper Houses	2429.06	2429.06
(ix).	Miscellaneous, water supply, administrative buildings, power control room, stores, etc.	1279.11	1279.11
	<b>Sub-total</b>	<b>10740.46</b>	<b>10740.46</b>
(b).	Mechanical Equipment		
(i).	Twin Wagon Tippler - 1 no.	2447.20	2447.20
(ii).	Stacker cum Reclaimer - 2 nos.	6523.57	6523.57
(iii).	Ship loader - 1 no. ( Scenario – B – 2 nos)	2468.72	4937.43
(iv).	Belt Conveyors - 1600 mm wide	1888.42	1888.42
(v).	Belt Conveyors - 1200 mm wide	914.29	914.29
(vi).	Metal detector and weighers	56.65	56.65
(vii).	Pay loaders - 4 nos.	135.95	135.95
(viii).	Workshop equipment	113.30	113.30
(ix).	Electrical power & control switch gears	386.34	386.34
	<b>Sub-total</b>	<b>14934.44</b>	<b>17403.15</b>
(c).	Miscellaneous (5% of Civil and Mechanical Equipment cost)	1283.75	1407.18
	<b>TOTAL</b>	<b>26958.65</b>	<b>29550.79</b>
III.	Estimated Operating Cost	5551.55	6135.15
IV.	16% ROCE	4313.38	4728.13

V.	<b>Estimated Annual Revenue Requirement (ARR)</b>	<b>9864.93</b>	<b>10863.28</b>
VI.	<b>Apportionment of Annual Revenue Requirement</b>		
(a).	Handling Charges (98%)	9667.63	10646.02
(b).	Storage Charges (1%)	98.65	108.63
(c).	Miscellaneous Charges (1%)	98.65	108.63
	<b>Total Revenue Requirement</b>	<b>9864.93</b>	<b>10863.28</b>
VII.	<b>Revised Rates proposed</b>		
(a).	Composite Handling Charges - Rupees per tonne	118.77	130.79
(b).	Storage Charges - Rupees per tonne per day (beyond free period of 15 days) *		
(i).	For first week	0.61	0.55
(ii).	For second to third week	1.22	1.10
(iii).	From third week onwards	2.44	2.20
(c).	Miscellaneous charge - Rupees per tonne *	1.33	1.21

\* In the proposal of VPT, the storage charge and miscellaneous charge in the two Scenarios seems to be inadvertently exchanged which is correctly reflected in the above table.

7. The revised proposal filed by the VPT was forwarded to the concerned users/ organisation bodies/ prospective applicants/ major iron ore exporters to furnish their comments. The Steel Authority of India Limited (SAIL) has stated that it has no comments to offer. Apart from that, we have not received comments from any other users/ organisation bodies/ prospective applicants/ major iron ore exporters consulted on the revised proposal.

8. A joint hearing in this case was held on 2 November 2010 at the Visakhapatnam Port Trust. The VPT made a power point presentation of its proposal. At the joint hearing, VPT and the concerned users/ organisation bodies have made their submissions.

9.1. At the joint hearing, the VPT was advised to submit detailed justification for its proposal to deploy only one ship-loader and to review its proposal to remove the wide gap observed between the quay and yard capacities and submit its response within one week's time i.e., by 9 November 2010.

9.2. With reference to the points discussed at the joint hearing, the VPT has responded vide letter dated 22 November 2010. The VPT has furnished clarifications alongwith revised cost statements and Scale of Rates. The main points submitted by VPT are summarised below:

- (i). The provision of yard area in earlier proposal was 72,864 sq. mtrs. (639 mts. x 114 mtrs.). This has been enhanced to 76,380 sq. mtrs. (670 mtrs. x 114 mtrs.) to accommodate a stacking quantity of about 9 million tonnes per annum.
- (ii). Turn over ratio has been considered as 16 as against the norm of 12 turn rounds. The dwell time of iron ore at Visakhapatnam Port during last 3 years is 21 days, 24 days and 24 days. As such, average dwell time of 3 years i.e. 23 days is considered. Accordingly, turn over ratio works out to 15.8 or say 16 (365 days/23 days).
- (iii). The governing consideration for providing one Shiploader of 3000 TPH capacity instead of norm of 2 nos. prescribed in the guidelines is the operation convenience particularly keeping in view the length of berths and also due to technical feasibility. For the existing ore berth, only one ship loader exists for a berth length of 280 mtrs. where vessels of 280 mtrs. are berthed.

- (iv). As the quay capacity is arrived at 9.50 million tonnes and yard capacity is worked out at 9.0 million tonnes, all possibilities have been explored to match the terminal capacity to yard capacity. It would not be possible to increase the yard area further as the proposed area has already encroached the back up area of the existing berths and further increase of land will hamper the operational flexibility and development activity of the adjacent berths. On the above considerations, the quay capacity is 9.50 million tonnes and yard capacity is 9.0 million tonnes and the variation between two is only about 5%.
- (v). Due to the increase in yard area etc., there is some revision in related items of capital cost and accordingly the capital cost is arrived at Rs.275.20 crores. With the above changes, the revised handling rate is arrived at Rs.110.67 per tonne.

9.3. The summary of the revised cost statement filed by the VPT is explained below:

- (i). The revised capital cost is estimated at Rs.275.20 crores. The breakup thereon is given below:

			(Rs. in lakhs)		
Sl. No.	Particulars		Estimated capital cost		
(i).	<b>Civil Costs</b>				
	1.	Storage yard development	2243.26		
	2.	Workshop area buildings	35.13		
	3.	Electrical sub-station buildings	41.92		
	4.	Railway lines, sidings & foundation for stacker, Reclaimer & ship loader	1211.13		
	5.	Approach Roads	555.15		
	6.	Conveyor galleries	2966.09		
	7.	Transfer Towers	116.70		
	8.	Dumper Houses	2429.06		
	9.	Miscellaneous, water supply, administrative buildings, power control room, stores, etc.	1290.44		
	<b>Sub-total</b>			<b>10888.88</b>	
(ii).	<b>Mechanical equipment</b>				
	1.	Twin Wagon Tippler - 1 no.	2447.20		
	2.	Stacker cum Reclaimer – 3000 TPH – 2 nos.	6523.57		
	3.	Ship loader 3000 TPH - 1 no.	2468.72		
	4.	Belt Conveyors - 1600 mm wide	2213.46		
	5.	Belt Conveyors - 1200 mm wide	975.48		
	6.	Metal detector and weighers (4+2 nos.)	56.65		
	7.	Pay loaders - 4 nos.	135.95		
	8.	Workshop equipment	113.30		
	9.	Electrical power & control switch gears	386.34		
	<b>Sub-total</b>			<b>15320.67</b>	
(iii).	Miscellaneous charges – [5% of (i). + (ii).] i.e. 5% * (10888.88 + 15320.67)			<b>1310.48</b>	
	<b>Total Capital Cost of the Project [(i) + (ii) + (iii)]</b>			<b>27520.03</b>	

- (ii). The revised Annual Revenue Requirement estimated by the VPT is as follows:

Sr. No.	Particulars	Rs. in lakhs
1.	Total annual operating cost	5740.40
<b>2.</b>	<b>CAPITAL EMPLOYED</b>	<b>27520.03</b>
3.	16% Return on capital employed	4403.20
	<b>Total Annual Revenue Requirement</b>	<b>10143.60</b>

- (iii). The revised annual revenue requirement in the ratio of 98% towards handling charges at 1% each towards storage and miscellaneous charges as per the norms prescribed in the guidelines.

(iv). Scale of Rates:

The upfront tariff proposed by the VPT as per the revised proposal dated 19 November 2010 is as follows:

(a). Cargo handling charges:

Sl. No.	Commodity	(Rate per metric tonne)	
		Rate in Rupees	
		Foreign	Coastal
1.	Iron Ore	110.67	110.67

(b). Storage charges:

- (i). Percentage of cargo that attract storage charges - 28%
- (a). Dwell time of cargo - 23 days
- (b). Free period - 15 days
- (c). Stay of vessel at berth - 1.67 days
- (d). Days that attract storage - 6.33 days  
(23 days-16.67 days)
- (e). Percentage of cargo that attract storage - 28%  
(6.33 days/23 days x 100)
- (ii). Cargo that attract storage charges - 25.15 lakh tonnes  
(89.82 LT x 28%)
- (iii). Storage charges (beyond free period of 15 days) Rs. per tonne/ day
- (a). For first week - 0.64
- (b). For second to third week - 1.28
- (c). Third week onwards - 2.56
- (c). Miscellaneous charges for sweeping, dust suppression, environment, etc. – Rs.1.13 per tonne.

9.4. The VPT has subsequently vide letter dated 24 November 2010 made the following submissions as regards its revised proposal dated 22 November 2010:

- (i). As a requirement has arisen in between to allot the area to EQ-1 and EQ-1A berths which are also proposed under BOT basis and also keeping in view the requirement of land towards back up area for existing/BOT berths, storage area has been revisited and 76,380 sqm. (18.87 acres) was proposed to be as allotted as against 116,864 sqm. proposed earlier. To reduce the gap between the quay capacity and yard capacity of WQ-1 berth, 9 MT of capacity was considered for the subject proposal for which 76,380 sqm. (18.87 acres) was considered sufficient.
- (ii). There is no requirement for the Marshalling yard as R&D yard already existing at Port of Visakhapatnam can meet the requirement of WQ-1 berth. Also, there are proposals like development of Inter change yard at Mindi which will meet the requirement of BOT projects including the subject project.

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

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

- (i). The proposal is to fix upfront tariff cap for mechanised handling of iron ore at the Visakhapatnam Port Trust (VPT) to be developed on Public Private Participation (PPP) basis. The proposal is based on the guidelines for upfront tariff fixation issued by the Ministry of Shipping, Road Transport and Highways (MSRTH) in February 2008.

As per Clause 2.2. of the guidelines for upfront tariff setting for PPP Projects at the major ports of February 2008, the tariff caps to be prescribed would be applicable to all the projects to be bid out for iron ore handling at the Visakhapatnam Port Trust during the next five years. It is noteworthy that the VPT is well aware of this position.

- (ii). The VPT in line with our advice has reviewed its earlier proposal and filed a revised proposal dated 22 November 2010 wherein it has reduced the mismatch between the yard capacity and the quay capacity which was observed in its original proposal. The revised proposal filed by VPT vide its letter dated 22 November 2010, along with the information / clarification furnished during the processing of the case is considered in this analysis.
- (iii). The proposal of VPT dated 22 November 2010 in general complies with the guidelines issued for upfront tariff setting vide Notification No.TAMP/52/2007-Misc. dated 26 February 2008. Deviations proposed in some of the norms / parameters are, *inter alia*, discussed in the subsequent paragraphs.
- (iv). Optimal Terminal Capacity:

(a). Optimal Quay Capacity:

- (i). The VPT has assessed the optimal quay capacity of the mechanised iron ore handling terminal at 9.50 Million Tonnes Per Annum.
- (ii). The share of handymax vessel and the panamax vessels was assumed at 50% each in its original proposal. Subsequently, in view of our observation and keeping in view the dredging projects under implementation, the VPT has considered the share of the panamax vessel at 67% and the share of handy max vessel at 33% in the revised proposal.

The port has submitted that presently cape size iron ore vessels are handled only at the outer harbour. In view of restriction in the draft at inner harbour where this facility is envisaged it does not expect any cape size vessel at the proposed terminal. The share of capacity of vessels assumed by the VPT is relied upon and considered in the analysis.

- (iii). The most important deviation made by the VPT in the current proposal for determination of upfront tariff is in the number of ship loaders and consequently the handling rate of panamax vessel.

The normative list of equipment suggested in the guidelines for iron ore terminal stipulates deployment of 2 ship loaders apart from other equipment. As against the prescribed norm of 2 ship loaders, the port has proposed deployment of 1 ship loader.

The port has explained that the existing mechanised iron ore berth at the outer harbour of the port operates with one ship loader and desired output is achieved. The length of existing ore berth is 280 mtrs. where vessels of 280 mtrs. are berthed and the proposed iron ore terminal is also of the same berth length.

Keeping in view the operational convenience particularly in view the length of berths and also due to technical feasibility, the port has justified that 1 ship loader is sufficient at the proposed iron ore terminal. This Authority has not gone into the merit of the arguments of VPT either regarding the optimal length of quay or the technical feasibility, as these issues are to be addressed by the Project Clearing authorities in the Government.

Though the port insisted upon a single ship loader configuration, it has vide its letter dated 18 September 2010 furnished a scenario of upfront tariff calculation with two ship loaders. It is observed that in the scenario of two ship loaders furnished by VPT, though the optimal quay capacity is assessed at 11.52 MTPA, the yard capacity acts as a major limiting factor resulting in wide gap between the two capacities.

The port has clarified that it would not be possible to increase the yard area further as the proposed area has already encroached the back up area of the existing berths and further increase of land will hamper the operational flexibility and development activity of the adjacent berths. As the yard capacity is a constraint as reported by the port, even if the quay capacity is enhanced reckoning two ship loaders as per the norms prescribed, it may not serve any useful purpose except burdening users with the increase tariff to cover the capital cost and operating cost of the additional ship loader. Incidentally, the techno-economic feasibility report for the WQ-1 project takes into account operation of one ship loader.

It is notable that in the revised proposal filed by the VPT dated 22 November 2010, the quay capacity is assessed at 9.5 MTPA and optimal yard capacity at 8.98 MTPA i.e. nearly 9 MTPA. Though a deviation is made from the norm prescribed in the number of ship loaders, the loading rate for handymax vessel is considered at par with the normative loading rate prescribed, mainly because of higher capacity of ship loader considered. For panamax vessel, the handling rate is proposed to be lower than the norm prescribed, which is supported with calculation.

In view of the above and mainly recognising the constraints of yard capacity, the deviation proposed by the VPT in the number of ship loader is accepted. This deviation is allowed subject to the condition that the upfront tariff prescribed will apply for deployment of one ship loader only in the terminal for the reasons adduced by VPT. The VPT is advised to ensure that the RFQ inviting the bid and the Concession Agreement to be signed will reflect this position.

- (iv). The norms for loading iron ore is stipulated at 25000 tonnes per day for handy max vessel and the 55000 tonnes / day for handling panamax vessels which is based on two ship loaders.

As against the above position, the VPT has considered the handling rate of 25,000 tonnes per day for handymax vessels for one ship loader at par with the norms which is applicable for two ship loaders. The port has confirmed that the existing ore berth operating with one ship loader has achieved the loading rate of 25000 tonnes per day and hence the port is confident that same output can be achieved at the proposed berth also.

For panamax vessel, the handling rate is considered at 43200 tonnes per day based on the technical specification of the equipment. The port has assumed handling rate of ship loader @ 3000 tonnes per hour for 365 days and the efficiency factor is reckoned at 60% to factor the time taken for operational requirements like hatch changing, draft survey, initial arrangements, etc. It is relevant to state here that the actual loading rate highest achieved by the VPT in the past three years at the mechanised iron ore berth with deployment of one ship loader is reported at 35358 tonnes per day for panamax vessel. The loading rate of 43200 tonnes/ day for panamax vessel proposed by the port is higher than the best loading rate achieved by the port and the port has substantiated its proposal with the calculation. Relying on the clarification/ calculation furnished by the VPT, the handling rate for panamax vessel assumed by the VPT is accepted.

(b). Optimal Yard Capacity:

(i). The upfront tariff guidelines stipulate that the yard capacity is to be assessed for the area of the yard made available by the port for development. Originally, the port proposed to allot 116,864 sq. mtrs. of land of which 72,864 sq. mtrs. was proposed for development of stackyard. Subsequently, the port has reviewed the land requirement and proposed to allot 72,864 sq. mtrs. of area. On our insistence to examine the feasibility of removing the gap between the yard and quay capacities, the port in the revised proposal dated 22 November 2010 has proposed to increase the total allotment of land to 76,380 sq. mtrs. for storage and allied facility.

(ii). Stacking Capacity:

The VPT has considered the stacking factor at 15 tonnes per square metre as per the norms prescribed in the guidelines.

(iii). Plot turnover:

The norm for plot turnover for an iron ore terminal prescribed in the guidelines is 12 and the number of free days is prescribed at 25. In the original proposal of July 2010, the VPT had considered the turnover ratio as 14.3. In the revised proposal of November 2010, the VPT has assumed the turn over factor at 16. The port has justified that the average dwell time of the existing iron ore facility at Visakhapatnam Port during last three years is 23 days. Adopting this as a base, turn over ratio works out to 15.8 or say 16 (365 days/23 days). Based on the justification furnished by the port, and recognising that this deviation from the norms prescribed in fact results in improvement in the yard capacity, the same is accepted.

(iv). The optimal yard capacity of the mechanised terminal for iron ore adopting the stacking factor and the turnover ratio as explained above and applying the formula prescribed in the guidelines is assessed at 8982288 tonnes i.e. 8.98 Million Tonnes Per Annum (MTPA).

(c). Optimal Terminal Capacity:

The optimal capacity of the mechanised terminal is considered at 8982288 tonnes per annum being lower of the two capacities i.e. quay and yard in the calculation of upfront tariff.

As brought out earlier, relaxation is given from the norms prescribed in the guidelines with reference to number of ship loaders for reasons cited by the VPT. Constraint of yard capacity is the most significant reasons. Hence if at the time of actual operation, either the number of shiploaders or the parameters determining the yard capacity are found to be different from the parameters considered in the determination of the upfront tariff, the VPT should approach the Authority for review of the upfront rate determined in this Order.

(v). Capital Cost:

The revised capital cost for the iron ore terminal estimated by the VPT is Rs.275.20 crores for cargo handling services as explained hereunder:

(a). Civil construction cost:

The upfront tariff guidelines broadly indicate the civil works involved for iron ore terminal and require the port to estimate the civil cost. The items of civil work considered in the estimates prepared by the VPT follow the broad indicative list prescribed in the guidelines for iron ore terminal except marshalling yard which is not included in the estimates furnished by the port.

(b). Equipment cost:

As per the guidelines, the capital cost is to be estimated for the list of equipment prescribed therein:

(i). The deviation made by the VPT with reference to the ship loader from the normative level of equipment prescribed in the guidelines is already explained in the preceding paragraphs.

(ii). The normative list of equipment prescribes 2 nos. of reclaimers and 2 stackers amongst other equipment, whereas the VPT has considered two numbers of stacker-cum-reclaimer.

Earlier also the VPT in the upfront tariff fixation for coking coal and thermal coal and another proposal for determining upfront tariff for thermal and steam coal had considered deployment of reclaimer-cum-stacker instead of deployment of reclaimer and stacker separately. This position was relied upon by this Authority in Order No.TAMP/58/2008-VPT dated 27 November 2009 and No.TAMP/53/2009-VPT dated 4 May 2010 while determining the upfront tariff in the respective case.

(iii). The normative list of equipment prescribes two wagon tipper and two cranes, among other equipment. The port has clarified that deployment of twin wagon tippler instead of 2 nos. wagon tipplers will meet the requirement with higher productivity and is cost effective. As regards cranes, the port has clarified that since the proposal envisages integrated mechanized loading of iron ore, deployment of cranes is not necessary. In the earlier proposal filed by the VPT for fixation of the upfront tariff thermal and steam coal also the same sets of equipment were considered by the VPT which were relied upon by this Authority in Order No.TAMP/53/2009-VPT dated 4 May 2010.

(c). The civil and equipment cost estimates prepared by the port are with provision for contingencies to take care of any requirement which is not envisaged in the estimates, works contract tax and engineering / supervision charge. The same approach has been relied upon in the tariff determination of the other upfront tariff cases of the VPT.

The unit cost of wagon loader, stacker cup reclaimer, ship loader, metal detectors and weighers, workshop equipment and electric power & control switch gears considered by VPT are as per the position relied upon by this Authority in the upfront tariff fixed for coal terminal at Berth no EQ1A in the Order passed on 4 May 2010. As regards the capital cost of belt conveyor, the port has not furnished documentary evidence. The capital cost estimated by the VPT for the belt conveyor for the proposed iron ore terminal is comparable to capital cost estimated by the port in the upfront tariff proposal for thermal and steam coal handling at EQ1A berth and steam coal handling at EQ1 berth for the proportionate length of the belt conveyor and hence the estimates of VPT relied upon in this case.

In respect of capital cost for civil works, the port has furnished rate analysis and clarified that estimates are based on the similar type of works executed earlier in VPT with escalation which is matching with the cost arrived as per the prevailing market rates. The upfront tariff guidelines require the port to estimate the civil cost.

The capital cost estimates furnished by the port for civil works and the equipment cost is relied upon. It is notable that none of the users or bidders have any objection to the capital cost estimates furnished by the VPT.

- (d). The VPT has estimated miscellaneous capital cost at 5% on the civil and equipment cost, which is found to be in line with the norm prescribed in the guidelines.
- (e). The return on capital employed is estimated at 16% of the estimated capital cost. Essel Mining & Industries has requested to reduce return to 12%. It is relevant here to mention that the rate of ROCE was reviewed recently by this Authority and it was decided to adopt ROCE of 16% for the year 2009-10 to determine tariff for major ports and private terminals. Hence the return on capital employed is computed at 16% on the estimated capital cost. This works out Rs.44.03 crores for cargo handling services.

(vi). Operating Cost:

- (a). The upfront tariff guidelines for iron ore terminal prescribe power consumption norm at 1.40 units per tonne. The VPT has estimated the power cost adopting the consumption norm prescribed in the guidelines.

The unit cost of power considered by the VPT is Rs.6.26. The VPT has furnished copy of the electricity bill of June 2010 raised by APEPDCL in support of the unit rate of power.

- (b). As per the norms, the repairs and maintenance cost is estimated at 1% on the civil assets and 7% on the mechanical and electrical equipment, insurance cost at 1% of the gross fixed assets and other expenses at 5% of the gross value of fixed assets.
- (c). Depreciation, as per the guidelines, should be calculated following the depreciation rates for Straight Line Method (SLM) prescribed in the Companies Act, 1956. Depreciation is computed @ 3.34% on civil cost and 10.34% on equipment cost as per the rates prescribed in the Companies Act under the SLM for the relevant group of assets.
- (d). Lease rentals is calculated for 76830 sq. mtrs. of total area. The VPT has estimated the lease rent based on the rate approved by this Authority for quinquennium of 2003-08. Annual escalation is considered @ 2% per annum as per the existing schedule of rates from the years 2004-05 onwards to 2009-10.

The guidelines for upfront tariff guidelines stipulate that the lease rent for the port land is to be estimated based on the rate prescribed in Scale of Rates of the respective Major Port Trusts. The lease rent of the land belonging to the VPT was last approved by this Authority vide Order No.TAMP/41/2005- VPT on 22 April 2008 for the quinquennium 1998-2003 and 2003-2008 following the Government guidelines on land policy issued in March 2004. The lease rent approved by this Authority is due for revision but the port has not yet filed any proposal for revision of lease rental in line with the guidelines of the Government on land policy of major ports. Till such time any revision takes place, the existing Scale of Rates continues.

The estimate of the VPT for this item, which is based on the rate approved by this Authority for quinquennium of 2003-08 with approved annual escalation of 2% and application of the approved rate applicable for Zone-II A2 as proposed by the VPT, is considered without any change.

In case the revised lease rental for the quinquennium 2008-13 comes into force before issue of the RFP for the proposed terminal, then the port may approach this Authority to review the upfront tariff with reference to this item.

- (vii). A comparative statement of proposals fixing upfront tariff submitted by the VPT and the position considered in this order is attached as **Annex - I**.
- (a). The total revenue requirement from cargo handling service is estimated at Rs.10143.62 lakhs which is an aggregate of operating cost of Rs.5740.42 lakhs and Return on a capital cost of Rs.4403.20 lakhs.
  - (b). As per the guidelines, 98% of the total revenue requirement is apportioned to handling charge and 1% each to storage charge and miscellaneous charge for arriving at the pre-determined tariff.
  - (c). Based on the optimal capacity of the terminal assessed at 8.98 MTPA, the composite handling rate to meet the estimated revenue requirement of Rs.9940.74 lakhs from cargo handling service works out to Rs.110.67 per tonne. By way of abundant caution it is stated that the upfront tariff approved in this case is for operations with one ship loader.
  - (d). Composite handling charge proposed by the VPT include unloading of cargo received from wagon through unloading facilities at dumper house, transfer the same to the stackyard, storage at stackyard upto a free period of 15 days, reclaiming from the stackyard and loading onto ships, wharfage and all other miscellaneous services not specifically prescribed in the Scale of Rates.
  - (e). The VPT has assumed the dwell time of cargo at 23 based on the average position obtained in the past three years. Reckoning the average dwell time of cargo the stay of the vessel at berth for 1.67 days and the proposed free period of 15 days, the port has calculated that 28% of the total cargo will attract demurrage. It has proposed the rate for the first slab (1<sup>st</sup> week) at 0.64 per tonne. For the subsequent slabs, the storage charges are proposed 2.0 times and 4 times the rate proposed for the first slab. The approach followed by VPT in arriving at the storage charge is in line with the approach followed by the VPT in the other upfront tariff cases. The proposed rate is accepted.
  - (f). The tariff cap for miscellaneous charge works out to Rs.1.13 per tonne as proposed by VPT. The miscellaneous charge covers charges for sweeping, dust suppressions, environment safety etc.

- (g). As per the coastal policy of the Government which is prescribed in clause 4.3. of the tariff guidelines notified on 31 March 2005, handling of iron ore cargo is not entitled for any coastal concession. The port has also therefore rightly not proposed any concessional tariff in the handling charge for coastal category. As no coastal concession in tariff is envisaged in handling of iron ore, it is not necessary to distinguish the handling rates for foreign and coastal category in the Scale of Rates. For the same reasons, the conditionalities proposed at note 1.2. about concession applicable to coastal cargo are also not found relevant.
- (viii). The development of mechanised handling of iron ore by the operator under PPP model is envisaged on the existing berth i.e. WQ-1 of the port. The VPT has reported that berth hire charges for the proposed iron ore terminal at the subject berth will accrue to the VPT as per the rates prescribed in the Scale of Rates of the port.

As the levy of berth hire charges is not within the scope of the concessionaire for reasons cited by the VPT, it is not found relevant to include the conditions proposed at note (i) about reckoning the status of the vessel for the purpose of vessel related charges and the definition of 'foreign-going' and 'coastal' vessels. Hence the proposed condition is not included in the Scale of Rates for the iron ore terminal.

- (ix). 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, free days to exclude Customs holidays and terminal's non-operating days, storage charge shall not be levied if the terminal operator is not in a position to deliver/ ship the cargo when requested by user for reasons attributable to the operators proposed by the VPT are incorporated in the upfront tariff schedule for iron ore terminal.

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 2008 and 1 January of the relevant year. Such automatic adjustment of tariff caps will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year. In the instant case, since the estimation of capital cost and unit rate of operating cost considered in the upfront tariff calculation pertain to the year 2010 as reported by the VPT, it may be appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2010.

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. As stated earlier, the VPT should clearly bring out in the bid document as well as in the Concession Agreement that the private operator will be permitted to deploy one ship loader only.

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 Visakhapatnam Port Trust. If any action is to be taken against the private operators, the Visakhapatnam 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 Visakhapatnam 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 mechanised handling of iron ore at Visakhapatnam Port Trust attached as **Annex - II**.

**(Rani Jadhav)**  
Chairperson

FORMULATION OF UPFRONT TARIFF FOR IRON ORE TERMINAL AT VISAKHAPATNAM PORT TRUST

ANNEX - I

Rs. in lakhs

Sr. No.	Particulars	Estimates furnished by the VPT				Estimates considered by TAMP
		Original Proposal dated 17 July 2010	Revised proposal vide letter dated 18 September 2010		Further revised calculation vide letter dated 22 November 2010	
			Scenario - A (one ship loader)	Scenario - B (two ship loaders)		
<b>I</b>	<b>Optimal Capacity</b>					
(i).	<b>Optimal Quay Capacity</b>					
(a).	Share of Vessel Size					
	Percentage share of capacity of Panamax (vessels 45000 to 80000 DWT) (S1)	50%	67%	67%	67%	67%
	Percentage share of capacity of Handymax vessels (upto 45000 DWT) (S2)	50%	33%	33%	33%	33%
(b).	Ship day Output (in tonnes per day) (for one ship loader instead of 2 ship loaders prescribed in the guidelines except Scenario - B					
	- Panamax vessels - Norm - 55000 T/day (P1)	43200	43200	55000	43200	43200
	- Handy max vessels - Norm - 25000 T/day (P2)	25000	25000	25000	25000	25000
(c).	Quay Capacity = $0.7 * ((S1 * P1) + (S2 * P2)) * 365$	8712550	9503067	11523050	9503067	9503067
	Quay Capacity in million tonnes	8.71	9.50	11.52	9.50	9.50
(ii).	<b>Optimal Yard Capacity</b>					
(a).	Area of yard made available by the Port (in square metres) (A)	72864	72864	72864	76380	76380
	Area available for stacking (%) (U)	70%	70%	70%	70%	70%
(b).	Stacking Quantity per square metre (tons) (Q)	15.00	15.00	15.00	15.00	15.00
(c).	Annual Turnover Ratio of the plot (T)	14.3	15.2	15.2	16	16
(d).	Yard Capacity (in tonnes) = $0.7 * A * U * Q * T$	-	-	-	-	-
(e).	Total Yard Capacity (in tonnes)	7658371	8140366	8140366	8982288	8982288
(f).	Total Yard Capacity (in million tonnes)	7.66	8.14	8.14	8.98	8.98
(iii).	Optimal capacity of the Terminal - lower value of the optimal quay capacity and optimal yard capacity (in Million tonnes Per Annum).	7.66	8.14	8.14	8.98	8.98
<b>II</b>	<b>Capital Cost</b>					
(i).	<b>Cargo Handling Activity</b>	Rs. in lakhs	Rs. in lakhs	Rs. in lakhs	Rs. In lakhs	Rs. In lakhs
(a).	<b>Civil Costs</b>					
	- Storage yard development	1941.89	1941.89	1941.89	2243.26	2243.26
	- Workshop area buildings	35.13	35.13	35.13	35.13	35.13
	- Electrical sub-station buildings	41.92	41.92	41.92	41.92	41.92
	- Railway lines, sidings & foundation for stacker, reclaimers & ship loader	1375.41	1375.41	1375.41	1211.13	1211.13
	- Approach roads	555.15	555.15	555.15	555.15	555.15
	- Conveyor galleries	2966.09	2966.09	2966.09	2966.09	2966.09
	- Transfer towers	116.70	116.70	116.70	116.70	116.70
	- Dumper houses	2429.06	2429.06	2429.06	2429.06	2429.06
	- Miscellaneous, water supply, administrative buildings, power control room stores, etc.	1279.11	1279.11	1279.11	1290.44	1290.44
	<b>Subtotal (a)</b>	<b>10740.46</b>	<b>10740.46</b>	<b>10740.46</b>	<b>10888.88</b>	<b>10888.88</b>
(b).	<b>Equipment Cost</b>					
	- Twin Wagon Tippler (VPT proposes - 1 no.) Norm - 2 nos. of wagon tippler	2447.19	2447.20	2447.20	2447.20	2447.20
	- Stacker cum Reclaimer (VPT proposes 2 Nos.) Norm - 2 nos. of stacker and 2 nos of reclaimers	6523.58	6523.57	6523.57	6523.57	6523.57
	- Ship loader (VPT proposes 1 no.) Norm - 2 nos. of ship loaders	2468.72	2468.72	4937.43	2468.72	2468.72
	- Belt Conveyors (1600 mm wide)	2098.24	1888.42	1888.42	2213.46	2213.46
	- Belt Conveyors (1200 mm wide)	975.48	914.29	914.29	975.48	975.48
	- Metals detector and weighers	56.65	56.65	56.65	56.65	56.65
	- Pay loaders (VPT proposes - 4 nos.) Norm - 4 nos. of pay loaders	135.95	135.95	135.95	135.95	135.95
	- Workshop equipment	113.30	113.30	113.30	113.30	113.30
	- Electric Power & control switch gears	386.34	386.34	386.34	386.34	386.34
	<b>Subtotal (b)</b>	<b>15205.45</b>	<b>14934.44</b>	<b>17403.15</b>	<b>15320.67</b>	<b>15320.67</b>
(c).	<b>Miscellaneous [5% on (a) and (b)]</b>	1297.30	1283.75	1407.18	1310.48	1310.48
	<b>Total Capital Cost for Handling Activity (a + b + c)</b>	<b>27243.21</b>	<b>26958.65</b>	<b>29550.79</b>	<b>27520.03</b>	<b>27520.03</b>

Sr. No.	Particulars	Estimates furnished by the VPT			Estimates considered by TAMP
		Original Proposal dated 17 July 2010	Revised proposal vide letter dated 18 September 2010		
<b>III</b>	<b>Operating Cost</b>				
(i).	<b>Cargo Handling Activity</b>	Estimates (Rs.in lakhs)	Estimates (Rs. in lakhs)	Estimates (Rs. in lakhs)	Estimates (Rs.in lakhs)
	(a). Power Cost (1.4 units per tonne) Unit rate Rs. 6.20 in original proposal updated to Rs.6.26 per unit in revised proposals)	664.72	713.39	713.39	787.18
	(b). Repair & Maintenance				
	- Civil Assets (1% on civil work)	107.40	107.40	107.40	108.89
	- Mechanical & Electrical Equipment including spares (7% on mechanical and electrical works)	1064.38	1045.41	1218.22	1072.45
	(c). Insurance (1%on Gross fixed assets)	272.43	269.59	295.51	275.20
	(d). Depreciation	1930.97	1902.95	2158.22	1947.85
	(e). License Fee	264.44	164.88	164.88	172.83
	(f). Other Expenses towards salaries and overheads (5% on gross value of assets)	1362.16	1347.93	1477.54	1376.00
	<b>Total Operating Cost</b>	<b>5666.50</b>	<b>5551.55</b>	<b>6135.15</b>	<b>5740.40</b>
<b>IV</b>	<b>Revenue Requirement &amp; proposed tariff</b>				
(i).	<b>Cargo Handling charge</b>				
	<b>1. Revenue Requirement</b>				
	(a). Total Operating Cost	5666.50	5551.55	6135.15	5740.40
	(b). Return on capital Employed @ 16%	4358.91	4313.38	4728.13	4403.20
	<b>(c).Total Revenue requirement from cargo handling activity</b>	<b>10025.41</b>	<b>9864.93</b>	<b>10863.28</b>	<b>10143.60</b>
	<b>2. Apportionment of Revenue Requirement</b>				
	(a).Handling Charges (98% of ARR)	9824.91	9667.63	10646.01	9940.72
	(b). Storage Charges (1%of ARR)	100.25	98.65	108.63	101.44
	(c). Miscellaneous Charge (1% of ARR)	100.25	98.65	108.63	101.44
	<b>(d). Total Revenue requirement from cargo handling activity</b>	<b>10025.41</b>	<b>9864.93</b>	<b>10863.28</b>	<b>10143.60</b>
	<b>3. Proposed tariff per tonne rate</b>				
	(a). Iron Ore Handling Charge (Composite)				
	- Revenue Requirement (Rs. in lakhs)	9824.91	9667.63	10646.01	9940.72
	- Optimal Capacity (Million Tonnes per annum)	7.66	8.14	8.14	8.98
	Composite Handling Charge (Rs. per tonne)	<b>128.30</b>	<b>118.77</b>	<b>130.79</b>	<b>110.67</b>
	(b). Storage Charge				
	- Revenue Requirement (Rs. in lakhs)	100.25	98.65	108.63	101.44
	- % of Cargo to attract storage charge	20%	30%	30%	28%
	- Cargo likely to pay storage charge (lakh tonnes)	15.32	24.42	24.42	25.15
	(i). Free period	15 days	15 days	15 days	15 days
	(ii). Storage Charge (beyond the free period)	Rate Per tonne per day or part thereof	Rate Per tonne per day or part thereof	Rate Per tonne per day or part thereof	Rate Per tonne per day or part thereof
	<b>Slab in original proposal</b>	<b>Slabs in Revised proposals</b>			
	-First five days	For first week	1.51	0.55	0.61
	-6th day to 10th day	For second to third week	3.02	1.10	1.22
	-11th day onwards	Third week onwards	6.04	2.20	2.44
	(c). Miscellaneous Charge				
	- Revenue Requirement (Rs. in lakhs)	100.25	98.65	108.63	101.44
	- Optimal Capacity (Million Tonnes Per Annum)	7.66	8.14	8.14	8.98
	- Miscellenous Charge per tonne	<b>1.31</b>	<b>1.21</b>	<b>1.33</b>	<b>1.13</b>

**VISAKHAPATNAM PORT TRUST**

**UPFRONT TARIFF SCHEDULE FOR MECHANISED HANDLING OF IRON ORE**

**1.1. DEFINITIONS**

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

- (i). "Day" shall mean the period starting from 6.00 A.M. of a day and ending at 6.00 A.M. on the next day.

**1.2. GENERAL TERMS & CONDITIONS**

- (i). Interest on delayed payments / refunds.
  - (a). The user shall pay penal interest on delayed payments of under this Scale of Rates. Likewise, the terminal operator shall pay penal interest on delayed refunds.
  - (b). The rate of penal interest will be 2% above the prime lending rate of the State Bank of India.
  - (c). The delay on refunds will be counted only 20 days from the day of completion of services or on production of all the documents required from the users, whichever is later.
  - (d). The delay in payments by the users will be counted only 10 days after the date of raising the bills by the terminal operator. This provision shall, however, not apply to the cases where payment is to be made before availing the services where payment of charges in advance is prescribed as a condition in the scale of rates.
- (ii). In calculating the gross weight or measurement by volume or capacity of any individual item, fractions upto and inclusive 0.5 shall be taken as 0.5 unit and fractions of above 0.5 shall be treated as one unit, except where otherwise specified.
- (iii). All charges worked out shall be rounded off to the next higher rupee on the grand total of the bill.
- (iv).
  - (a). The rates prescribed in the Scale of Rates are ceiling levels: likewise, rebates and discounts are floor levels. The terminal operator may, if they so desire, charge lower rates and / or allow higher rebates and discounts.
  - (b). The terminal operator may also, if they so desire rationalise the prescribed conditionalities governing the application of rates prescribed in the Scale of Rates if such rationalisation 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.
  - (c). The terminal operator should notify the public such lower rates and / or rationalisation of the conditionalities governing the application of such rates provided the new rates fixed shall not exceed the rates notified by the TAMP.
- (v). Users will not be required to pay charges for delays beyond reasonable level attributable to terminal operator.

## 2. CARGO HANDLING CHARGES:

Sl. No.	Commodity	Unit	Rate in Rupees
(a).	Iron Ore	Per Metric Tonne	110.67

### Note:

The handling charges prescribed above is a composite charges for unloading of cargo from wagon through unloading facilities at dumper house, the transfer the same upto the point of storage, storage at the stack yard upto a free period of 15 days, reclaiming from stack yard, loading onto the ship, wharfage and all other miscellaneous services not specifically prescribed in the scale of rates.

## 3. STORAGE CHARGES:

The Storage charges for the cargo stored in the stack yard beyond the free period of 15 days shall be as below:

(Rate in Rs. per tonne per day or part thereof)

Sl. No.	Commodity	Rate for first week for the balance cargo remaining after the free period	Rate for second week for the balance cargo	Rate for third week onwards for the balance cargo
1.	Iron ore	0.64	1.28	2.56

### Notes:

- (i). 15 free days shall be allowed. Free period for export cargo shall commence from the actual date of the receipt of goods in the Port premises.
- (ii). For the purpose of calculation of free period, Custom notified holidays and Terminal's non-working days shall be excluded.
- (iii). 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.
- (iv). Storage charges 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.

## 4. MISCELLANEOUS CHARGES:

The following Miscellaneous charges are applicable for iron ore handled:

Sl. No.	Particulars	Rate per tonne or part thereof (in Rs.)
(i).	Charges for all miscellaneous services such as sweeping, dust suppression and environment etc.	1.13

## 5. GENERAL NOTE TO SCHEDULE (2) TO (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<sup>st</sup> March of the following year.

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**SUMMARY OF THE COMMENTS RECEIVED FROM THE PORT USERS / SHORTLISTED  
BIDDER / RFQ APPLICANTS AND ARGUMENTS MADE IN THIS CASE DURING THE  
JOINT HEARING BEFORE THE AUTHORITY**

**F. No.TAMP/32/2010-VPT - Proposal from the Visakhapatnam Port Trust for fixation of upfront tariff for mechanization of West Quay-1 (WQ-1) berth in the inner harbour of Visakhapatnam Port for handling iron ore on Design, Built, Finance, Operate and Transfer (DBFOT) basis.**

The summary of comments received from the users / organisation bodies / prospective applicants / major iron ore exporters and the comments of VPT thereon are given below:

<b>Sl. No.</b>	<b>Comments of users / organisation bodies / prospective applicants / major iron ore exporters</b>	<b>Comments of VPT</b>																				
1.	<b>Steel Authority of India Limited</b> No comments to offer.																					
2.	<b>ABG - LDA Bulk Handling Pvt. Ltd.</b>																					
(i).	<p>Average parcel size of 72,000 Tonnes for vessel of 45,000 to 80,000 DWT is practically not possible. The vessel carrying a parcel size of 72,000 Tonnes cannot berth at WQ-1 due to the draft restriction. Statistics of the average parcel size of vessels berthed at berth no.WQ-1 at VPT is given below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4" style="text-align: center;">WQ-1 *</th> </tr> <tr> <th style="text-align: center;">Year</th> <th style="text-align: center;">2006-07</th> <th style="text-align: center;">2007-08</th> <th style="text-align: center;">2008-09</th> </tr> </thead> <tbody> <tr> <td><b>Average Draft</b></td> <td style="text-align: center;">10.6 mtrs</td> <td style="text-align: center;">10.6 mtrs</td> <td style="text-align: center;">10.6 mtrs</td> </tr> <tr> <td><b>Average DWT (in tonnes)</b></td> <td style="text-align: center;">70,304</td> <td style="text-align: center;">70,657</td> <td style="text-align: center;">72,793</td> </tr> <tr> <td><b>Average Parcel size (in tonnes)</b></td> <td style="text-align: center;">50,812</td> <td style="text-align: center;">50,791</td> <td style="text-align: center;">57,725</td> </tr> </tbody> </table> <p>* Note: Above figures are taken from Visakhapatnam Port Trust - Performance Highlights 2008-09 (Book let, Research and Planning Department)</p>	WQ-1 *				Year	2006-07	2007-08	2008-09	<b>Average Draft</b>	10.6 mtrs	10.6 mtrs	10.6 mtrs	<b>Average DWT (in tonnes)</b>	70,304	70,657	72,793	<b>Average Parcel size (in tonnes)</b>	50,812	50,791	57,725	The present parcel sizes cannot be considered for proposed terminal. The port has taken up deepening of Inner harbour channel and turning circle to accommodate panamax vessels upto 13.8 mtrs. draft. As such panamax vessel can be handled at WQ1 after Phase III deepening.
WQ-1 *																						
Year	2006-07	2007-08	2008-09																			
<b>Average Draft</b>	10.6 mtrs	10.6 mtrs	10.6 mtrs																			
<b>Average DWT (in tonnes)</b>	70,304	70,657	72,793																			
<b>Average Parcel size (in tonnes)</b>	50,812	50,791	57,725																			
(ii).	Share / proportion of vessel assumed at the proposed berth is not realistic. The average size of vessel & their proportion at WQ-1 should be amended to be in line with the past statistics of the port.	The proportion of panamax and handy max has been arrived based on deployment pattern of vessels as per Clarkson directory. The norm for output per berth day has been reckoned in line with TAMP guidelines. As such the proposal is in order.																				
3.	<b>Essel Mining &amp; Industries Limited</b>																					
(i).	There is no mention of any guarantees on shortages during the handling of cargo from arrival at WQ-1 to loading on to the vessel.	It is a commercial arrangements between Terminal operator and there is no provision to address this issue in TAMP guidelines..																				
(ii).	The loading rate is fixed on an efficiency of only 60% and load rate achievable mentioned is only 43,000 TPD, which is lower than the current levels achieved mechanical handling at VPT and Gangavaram Port.	The loading rate has now been reckoned as 55000 tonnes for panamax vessels which is in line with TAMP guidelines in case of deployment of two loaders. If only one Shiploader is deployed, the loading rate envisaged as 43,200 TPD.																				
(iii).	The entire revenue stream calculation is based on ROCE of 16% thereby making charges leviable higher than the VPT. We recommend that ROCE is fixed at realistic level of 12%.	16 % ROCE is as per TAMP guidelines.																				

(iv).	Transportable moisture limit is a very serious issue for exporters/ shippers. It is recommended that the conveyor system has a fibre glass hood to protect the cargo from rains.	Addition of moisture on conveyor due to rain is very minimal when compared to stack yard. However, same may be examined during detailed engineering.
(v).	The system does not make any provisions for avoidance of spillage from the conveyors. This is very important to prevent any loss of material.	It may be noted that the connected conveyor system is proposed both on the consideration of environment angle and avoidance of spillage.
(vi).	While preparing / developing plots for storage, it is recommended that geo-synthetic clay liners be used to protect from any water logging in the plots.	The plot is allotted on as is where is basis duly making basic provisions for necessary strengthening / improvement. It is for the bidder to make the necessary need based soil improvement duly adopting the suitable technologies meeting the performance standards.

2. A joint hearing in this case was held on 2 November 2010 at the Visakhapatnam Port Trust. The VPT made a power point presentation of its proposal. At the joint hearing, VPT and the concerned users/ organisation bodies have made the following submissions:

**Visakhapatnam Port Trust**

- (i). Though we have proposed two scenarios, we request to consider only the option with one ship loader.
- (ii). We are planning to strengthen the existing storage area which can increase the iron ore handling capacity. But, pollution is a major concern.
- (iii). We will allot additional land once throughput exceeds 8 million. Concession Agreement provides for it.
- (iv). Draft in the inner harbour is already available at 12.5 mtrs. Our proposal to increase the draft to 14 mtrs. is in the advance stage of consideration.

**ABG-LDA Bulk Handling Private Limited**

- (i). We have given written comments. Please consider them.

**Essel Mining & Industries Limited**

- (i). We have nothing to add other than our written comments.

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