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 V.O. Chidambaranar Port Trust for fixation of Reference tariff for mechanization of loading system at the existing coal yard on license basis for 10 years period on revenue share basis, as in the Order appended hereto.

(T.S. Balasubramanian)  
Member (Finance)
Tariff Authority for Major Ports
(No. TAMP/9/2015–VOCPT)

V.O. Chidambaranar Port Trust - - - Applicant

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

ORDER
(Passed on this 21st day of March 2015)

This case relates to the proposal dated 6 February 2015 received from V.O. Chidambaranar Port Trust (VOCPT) for fixation of Reference tariff for mechanization of loading system at the existing coal yard system on license basis for 10 years period on revenue share basis.

2. The submissions made by the VOCPT in its proposal are summarized below:

(i). The VOCPT proposes to implement a Mechanized wagon loading system at the existing coal stack yard by way of grant of license on Revenue share basis for a period of 10 years.

(ii). The Ministry of Shipping (MOS) has fixed the timeline for issuing Letter of Award for the subject Project on or before 30.3.2015.

(iii). Board of Trustees of VOCPT accorded approval for the project in the Board meeting held on 30.05.2014. Approval of the Ministry of Shipping was also sought for the subject project on 21.07.2014.

3. The highlights of the proposal as seen from the supporting documents furnished by the VOCPT are summarised below:

(i). (a). Coal traffic:

Coal traffic forecast for stack yard in inner harbour as per the feasibility report is furnished below:

<table>
<thead>
<tr>
<th></th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
<th>FY25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial coal total</td>
<td>6.05</td>
<td>6.66</td>
<td>7.32</td>
<td>8.05</td>
<td>8.86</td>
<td>9.74</td>
<td>10.47</td>
<td>11.26</td>
<td>12.10</td>
<td>13.01</td>
<td>13.99</td>
</tr>
<tr>
<td>Share of berth- III, IV &amp; IX</td>
<td>6.05</td>
<td>3.33</td>
<td>3.66</td>
<td>4.03</td>
<td>4.43</td>
<td>4.87</td>
<td>5.24</td>
<td>5.63</td>
<td>6.05</td>
<td>6.51</td>
<td>6.99</td>
</tr>
<tr>
<td>Share of NCB- II, III, IV</td>
<td>0.00</td>
<td>3.33</td>
<td>3.66</td>
<td>4.03</td>
<td>4.43</td>
<td>4.87</td>
<td>5.24</td>
<td>5.63</td>
<td>6.05</td>
<td>6.51</td>
<td>6.99</td>
</tr>
<tr>
<td>% that will come to stack yard</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Total</td>
<td>5.75</td>
<td>3.16</td>
<td>3.48</td>
<td>3.82</td>
<td>4.21</td>
<td>4.63</td>
<td>4.98</td>
<td>5.35</td>
<td>5.75</td>
<td>6.18</td>
<td>6.64</td>
</tr>
</tbody>
</table>

(b). Stack Yard capacity and loading of cargo into Trucks / Wagons:

Currently about 8 lakh tonnes of coal is being stacked in coal stack yard. The current maximum stack height at the coal stack yard is 6 m. With this 6 m stack height, the coal yard I, II & III has a cumulative maximum capacity of 1.34 Million Metric Tonne Capacity and the lime stone has 0.2 Million Metric Tonne Capacity assuming that the maximum stack height in lime stone yard can be maintained at 6m.
Industrial coal coming at the port is currently being stacked in the coal yard by the various Port users in their respective allotted slots and further transported to the end users through wagon/ trucks as and when required. A broad gauge railway is available in the middle of the phase -1 coal stack yard.

The stack yard has an existing single railway siding through which all the slot operators evacuate their cargo. The existing evacuation of the cargo from the respective slots was through front end loaders and trucks. These front end loaders feed the trucks continuously to evacuate the cargo. So the evacuation rate would then depend on the number of front end loaders that the operator would deploy. This handling procedure would then be the same for railway wagon loading as well. The loading of one complete rake consisting of 59 wagons takes 8 hours. Since the railway locos/ wagons are being engaged till time for the completion of loading, it leads to payment of demurrage charges for the wagons by the port users. The poor evacuation of the cargo at the stack yard leads to the ineffective utilization of the total stack yard area as well as leading to the demurrage charges paid by the Port users. So to mitigate the poor evacuation rate and to increase cargo turnaround of the stack yard, mechanization system has been proposed.

(ii). **Optimal capacity:**

The scope of work is to transport the cargo from the users plot in the coal stack yard to the apron area using Front end loaders and trucks. The transferred cargo would be dumped near the proposed conveyor belt through ground level hoppers. Then, the cargo will be transferred to the fixed wagon loading silo installed near the apron area through conveyors. Through the silo the cargo will be loaded into the Railway wagons.

(a). The optimal capacity of the stack yard as per the TAMP guidelines is

\[
0.7 \times A \times U/100 \times Q \times T \text{ tonnes, where,}
\]

\[
A = 4,16,412 \text{ SQ.MTR}
\]

\[
U = 70\%
\]

\[
Q = 3 \text{ Ton/ sq.mtr (As per norms)}
\]

\[
T = 12
\]

Optimal capacity = 0.7 x 4,16,412 x 0.7 x 3 x 12

= 7345508 million tonnes

= 7.35 MTPA

(b). Traffic Forecast for coal stack yard in inner harbor will be 6.64MTPA. Assuming 50 % of the forecasted traffic (6.64) is passing through railway wagons and 50 % is passing through trucks the optimal capacity will be

\[
0.5 \times 6.64 = 3.32 \text{ MTPA}
\]

(c). Considering each 20T truck makes 6 trips per hour, the plant capacity will be:

\[
20T \text{ per trip x 6 trips x 24 Hrs x 5 trucks x 365 days x 0.7} = 3.68\text{MTPA}
\]
(d). As 3.32 MTPA is the least one, optimal capacity is considered as **3.32 MTPA**.

(iii). **Share of Cargo:**

In the evacuation system, only the Dry bulk cargo will be handled. Therefore, the share of Dry bulk cargo is considered at 100% for the calculations. Also, the entire cargo expected to handle is assumed as “Foreign cargo”.

(iv). **Capital Cost:**

(a). **Civil cost:**

Based on the Feasibility report, the capital cost for civil works for conveyor system is considered at ₹ 3.78 Crores.

(b). The following equipment are proposed for installation in the mechanized evacuation system.

(i). Conventional Fixed type Silo system for Wagon Loading: 1500 MT Capacity- 01 No

(ii). Closed Conveyor 2500TPH Rated capacity: 500 meter (Approx)

(iii). Trucks (Each 20 T Capacity) : 5 Nos

(iv). Front end loaders (3.5 Cu. Mtr) : 5 Nos

(v). Hoppers : 5 Nos

(vi). Power distribution system & Control automation

(vii). Misc. items.

(a). Magnet

(b). Metal Detectors

(c). Belt feeder

(d). Belt scales

(e). Movable head pulleys

(c). The approximate cost of the Project comes to ₹ 22.75 crores.

(v). **Operating Cost:**

(a). **Power cost:**

The power cost of ₹ 1.4/ Ton of coal terminal is considered as per the TAMP Guidelines 2008

\[
\text{Power cost} = 1.4 \text{ Unit/Ton} \times 3320000 \times ₹ 8 \text{ per unit} \\
= ₹ 371.84 \text{ lakhs}
\]

(b). The proposed equipment viz., Hoppers, Front end loaders and Trucks in the system will be operated by Fuel and hence fuel cost is considered in the annual revenue requirement. Fuel cost of ₹50.48/ ltr is considered as per the IOC Ltd., invoice dated 28 January 2015.

1. Fuel cost for Hopper : ₹50.48 Lakhs/ Year
2. Fuel cost for Frontend Loaders: ₹201.92 Lakhs/ Year
3. Fuel cost for trucks : ₹50.48 Lakhs/ Year

(c) **Lease Rent**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of the equipment</th>
<th>Qty</th>
<th>Dimension of each equipment</th>
<th>Total Area in Sq.Mtr</th>
<th>Lease rent @ ₹ 348.68 per Sq.Mtr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>1</td>
<td>Plant area</td>
<td>LS</td>
<td>525</td>
<td>50</td>
<td>26250</td>
</tr>
<tr>
<td>2</td>
<td>Front end loaders</td>
<td>5 Nos</td>
<td>12</td>
<td>3</td>
<td>180</td>
</tr>
<tr>
<td>3</td>
<td>Trucks</td>
<td>5 Nos</td>
<td>12</td>
<td>3</td>
<td>180</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>9278374.80</th>
</tr>
</thead>
</table>
The area comes under commercial category. Hence ₹348.68 per Sq. mtr as per Estate rental of VOCPT for the period 2014-15 is taken for calculating the lease rent.

(vi). The return on capital employed is estimated at 16% on the capital cost.

(vii). The workings in this regard are given below:

(₹ In Lakhs)

<table>
<thead>
<tr>
<th>S.N</th>
<th>Particulars</th>
<th>Workings</th>
<th>Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I</strong></td>
<td><strong>Optimal Capacity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>Capacity of the Yard Area as per Feasibility Report</td>
<td>4,16,412 sqm</td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>0.70 x 4,16,412 x 0.70 x 3 T/sq.mtr. x 12 (Turn over Ratio) (As per Guidelines)</td>
<td>73,45,508</td>
<td>7.35 MT</td>
</tr>
<tr>
<td>(c)</td>
<td>Assuming 50% of the cargo moved by Rail out of Forecast 6.64 MT</td>
<td></td>
<td>3.32 MT</td>
</tr>
<tr>
<td>(c)</td>
<td>Plant capacity (20 T per trip x 6 trips per hour x 24 hrs x 5 Trucks x 365 Days x 0.70)</td>
<td>3,679,200</td>
<td>3.68 MT</td>
</tr>
<tr>
<td><strong>Hence, the Capacity is restricted to (b) which is the least</strong></td>
<td></td>
<td></td>
<td>3.32 MT</td>
</tr>
<tr>
<td><strong>II</strong></td>
<td><strong>Capital Cost of the project (₹ Lakhs)</strong></td>
<td></td>
<td>2275.20</td>
</tr>
<tr>
<td><strong>III</strong></td>
<td><strong>Operating cost</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td><em>Electricity Cost: Power required for conveyor, Silo etc.= 1.4 Unit/ Ton as per TAMP Guidelines- 2008</em></td>
<td>3320000 1.4 8/-</td>
<td>371.84</td>
</tr>
<tr>
<td>2</td>
<td><strong>Fuel cost:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>Fuel cost for Front end loaders :</td>
<td>4000 Hrs<em>20 Ltrs/Hr</em>₹50.48*5Nos</td>
<td>201.92</td>
</tr>
<tr>
<td>(b)</td>
<td>Fuel cost for Trucks:</td>
<td>4000 Hrs<em>5Ltr/Hr</em>₹50.48*5Nos</td>
<td>50.48</td>
</tr>
<tr>
<td>(c)</td>
<td>Fuel cost for Hopper</td>
<td>4000 Hrs<em>5Ltr/Hr</em>₹50.48*5Nos</td>
<td>50.48</td>
</tr>
<tr>
<td>3</td>
<td><strong>Repairs &amp; Maintenance cost</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>1 % on total cost of civil works(Rs.378 Lakhs)</td>
<td></td>
<td>3.78</td>
</tr>
<tr>
<td>(b)</td>
<td>7 % on total cost of Mech &amp; Elect works (Rs.1484 Lakhs)</td>
<td></td>
<td>103.88</td>
</tr>
<tr>
<td>4</td>
<td><strong>Insurance</strong></td>
<td></td>
<td>22.75</td>
</tr>
<tr>
<td>5</td>
<td><strong>Depreciation</strong></td>
<td>As per norms prescribed in Companies Act</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.33 % on total cost of Mech &amp; Elect works(₹1484 Lakhs)</td>
<td>₹1484.00*6.33%</td>
</tr>
<tr>
<td>6</td>
<td><strong>Rent (License Fee)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>Plant</td>
<td>(525*50) Sq.Mtr *₹348.68</td>
<td>91.53</td>
</tr>
<tr>
<td>(b)</td>
<td>Trucks and Front end loaders</td>
<td>(12<em>3</em>5)+(12*3.5) Sq.Mtr *₹348.68</td>
<td>1.26</td>
</tr>
<tr>
<td>7</td>
<td><strong>Other Expense</strong></td>
<td>5% of Gross fixed Asset Value</td>
<td>113.76</td>
</tr>
<tr>
<td><strong>Total (1) to (7)</strong></td>
<td></td>
<td></td>
<td>1,105.61</td>
</tr>
<tr>
<td><strong>IV</strong></td>
<td><strong>ROCE</strong></td>
<td>16% on capital cost</td>
<td>364.03</td>
</tr>
<tr>
<td><strong>V</strong></td>
<td><strong>Annual Revenue Requirement</strong></td>
<td></td>
<td>1,469.64</td>
</tr>
<tr>
<td><strong>VI</strong></td>
<td><strong>Proposed rate per Tonne</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VII</strong></td>
<td><strong>Proposed rate per tonne</strong></td>
<td>(Foreign Revenue Requirement (in. ₹) / Capacity (in tonnes)) *</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Foreign</td>
<td>44.27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coastal</td>
<td>26.56</td>
</tr>
</tbody>
</table>
The upfront tariff proposed by the VOCPT is as follows:

Cargo Handling Charges for mechanised Wagon Loading System at the Coal stack yard:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Commodity</th>
<th>Rate per in MT (in Indian Rupees)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Foreign</td>
</tr>
<tr>
<td>1</td>
<td>Dry Bulk Cargo</td>
<td>44.27</td>
</tr>
</tbody>
</table>

Note:
1. The Tariff is proposed for transportation of cargo from coal yard to wagon/ truck through conveyor system.
2. Thermal coal will not come under Coastal Cargo category.

4. The VOCPT has submitted the proposed Scale of Rates (SOR) and Feasibility Report for the said project along with its proposal. Though the VOCPT had not initially furnished the Performance Standards, it has subsequently furnished the Performance Standards under cover of its letter dated 25 February 2015. Thereafter, the VOCPT under cover of its letter dated 27 February 2015 has furnished its modified performance standards, as reproduced below:

“The License shall meet both the following Performance Standards:
(a). The Minimum guaranteed availability of 90% of Mechanised Loading System per month. The availability shall be calculated for the total mechanised system and,
(b). The License shall complete the loading of half a rake consisting of 30 wagons of each 66 Tonnes carrying capacity in fifty minutes.”

5. In accordance with the consultative procedure prescribed, the VOCPT proposal dated 06 February 2015 was forwarded to the concerned users/user organisations/prospective bidders for their comments. None of the users/user organisations and prospective bidders have furnished their comments, till the finalisation of the case.

6. Based on a preliminary scrutiny of the proposal, the VOCPT was requested vide our letter dated 19 February 2015 to furnish information/clarifications on various points. The VOCPT vide its e-mail dated 25 February 2015 has furnished its reply on the queries raised by us. A summary of queries raised by us and the response of the VOCPT thereon is given below:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Queries raised by us</th>
<th>Reply of VOCPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i).</td>
<td>General:</td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td>(a). The VOCPT has stated at page no. 11 of its proposal that the port obtained Draft Feasibility Report from the consultants in view of the timeline fixed by the Ministry of Shipping to issue Letter of Award. The VOCPT to furnish a copy of the Final Feasibility Report.</td>
<td>Copy of the Final Feasibility Report has been submitted to TAMP. (A copy of the Final Feasibility Report is furnished.)</td>
</tr>
<tr>
<td></td>
<td>(b). The Feasibility Report attached to the proposal contains three options. In this context, the VOCPT to clarify under which option the Port’s proposal falls.</td>
<td>Port’s proposal is based on the third option furnished by the Consultant.</td>
</tr>
<tr>
<td>(ii).</td>
<td>As already requested by us, interalia, under cover of our letter of even number dated 11 February 2015, the VOCPT to clarify the following position:</td>
<td></td>
</tr>
<tr>
<td>(a).</td>
<td>To explain the reason for enormous delay of around 8 months in filing the proposal before the Authority for approval</td>
<td>V. O. Chidambaranar Port Trust Board accorded approval to undertake the subject project on 30.05.2014. Approval from the</td>
</tr>
</tbody>
</table>
Ministry of Shipping was sought for the project on 21.07.2014, after receipt of board meeting confirmation. Work order for preparation of feasibility report for the subject project was issued to M/s. i – maritime consultancy pvt ltd., Mumbai on 25.09.2014 after adhering tender formalities. Final feasibility report was received by e-mail on 03.02.2015. TAMP application has been sent on 04.02.2015. This has been informed vide this office letter no. MEE/ P&M/ F.Mechanisation/2014/D.799, dated 20.2.2015.

(b). To confirm the position regarding forwarding a copy of the Performance Standards to the concerned users/ organisation bodies/ prospective bidders. A copy of the letter issued by VOCPT in this regard to the concerned users/ organisation bodies/ prospective bidders to be furnished.

Performance Standards are included in the tender documents and NIT has been published on 16.02.2015 for all the projects. Tender schedule containing the Performance standards are published in the Port website also. Copy of performance standard is enclosed.

(The Performance Standard furnished by the VOCPT, is reproduced below:

“The Licensee shall unconditionally guarantee the Licensor the minimum guaranteed availability of 90% of Mechanised Loading System per month. The availability shall be calculated for the total mechanised system.

The Licensee shall complete the loading of half a rake consisting of 30 wagons of each 66 Tonnes carrying capacity in fifty minutes.”

(iii) In page no. 5 of the Application filed by the VOCPT, the VOCPT at Table 1, has indicated the commodity group wise breakup of traffic handled in the last five years at VOCPT, which shows the total dry bulk cargo handled at VOCPT at 14.42 MMTPA, 14.92 MMTPA and 15.86 MMTPA during the years 2011-12 to 2013-14 respectively. However, in the Table 2 given in page no. 5, from the details of the various types of total dry bulk cargo handled at the VOCPT, it is shown that VOCPT has handled 5 MMTPA, 6.09 MMTPA and 7.21 MMTPA of dry bulk cargo during the years 2011-12 to 2013-14. The VOCPT to reconcile the difference and indicate the correct traffic of dry bulk cargo handled during the years 2011-12 to 2013-14 at VOCPT.

Quantity of cargo furnished in Table-I against Dry-bulk cargo includes the thermal coal handled at Coal jetties I & II and other berths. The Quantity of dry-bulk cargo handled in conventional berths are furnished in Table- II.

(iv). The VOCPT to confirm that no other cargo other than coal will be stacked at the envisaged stack yard.

Lime stone also stacked near the coal stack yard.

[Subsequently, the VOCPT under cover of its letter dated 02 March 2015 has interalia, stated that as the cargo proposed to be handled under this project viz. coal, coke and limestone have similar handling rate and similar stacking height, the same rate is proposed for the above cargoes under the category of dry bulk cargo. Further, it is also informed that out of the total cargo handled, 95% of cargo handled in the coal stackyard is coal.]
The area of the stack yard considered in the calculation for optimal stack yard capacity is seen to be 416412 sq. mtrs. The VOCPT to confirm that the proposed earmarking of the stack yard is in line with the Land use plan of the Port.

Allotment of area for the conveyors and equipment only are included in the proposal. Allotment of other area of stack yard is not envisaged.

[VOCPT to also confirm that the said stack yard area of 416412 sq. mtrs. is an additional facility over and above the Coal Stack Yard – Phase I, II and III available in VOCPT.]

The area 416412 Sq. Mtrs consists of coal yard Phase-I, II, III and lime stone yard as furnished in Pg.52 of Feasibility report.

The proposal in reference is with regard to movement of coal cargo from the yard to the wagons with the use of conveyors. In this connection, the VOCPT to explain the arrangement envisaged for handling of the said coal from the ship upto the coal stack yard.

The coal from the ship/wharf will be transported through Port user’s Trucks to the coal stack yard.

The proposal of the VOCPT is for fixation of Reference tariff for the arrangement of mechanization of loading system at the existing coal yard. However, the proposal at some other place states that evacuation system will handle dry bulk cargo. It is presumed that the proposed mechanical evacuation system is to handle coal cargo and no other dry bulk cargo. This presumption to be confirmed.

The Mechanical evacuation system will handle coal and also Lime stone.

[VOCPT under cover of its letter dated 02 March 2015, has, interalia, stated that as the cargo proposed to be handled under this project viz. coal, coke and limestone have similar handling rate and similar stacking height, the same rate is proposed for the above cargoes under the category of dry bulk cargo. Further, it is also informed that out of the total cargo handled, 95% of cargo handled in the coal stackyard is coal.] In the proposal for evacuation of cargo from IVth berth, Cargo will be evacuated through Trucks & Wagons. Hence, cargo transported through trucks will be stored at coal stack yard. In addition, Cargo transported from IXth berth through conveyors will also be stacked at the coal yard. The present proposal is for Wagon loading of the cargo from the coal stack yard.

The proposal in reference is with regard to movement of coal cargo from the yard to the wagons with the use of conveyors. In this connection, the VOCPT to explain the arrangement envisaged for handling of the said coal from the ship upto the coal stack yard.

The proposal in reference is with regard to movement of coal cargo from the yard to the wagons with the use of conveyors. In this connection, the VOCPT to explain the arrangement envisaged for handling of the said coal from the ship upto the coal stack yard.

The area of the stack yard at 416412 sq. mtrs. with 70% utilisation, and taking into account the stacking height of

The VOCPT has considered yard capacity, capacity based on traffic forecast and plant capacity to determine the optimal capacity. In this context, the VOCPT to consider the following:

Considering the area of the stack yard at 416412 sq. mtrs. with 70% utilisation, and taking into account the stacking height of

WORKINGS OF VOCPT:

1. Capacity:

The VOCPT has considered yard capacity, capacity based on traffic forecast and plant capacity to determine the optimal capacity. In this context, the VOCPT to consider the following:

Considering the area of the stack yard at 416412 sq. mtrs. with 70% utilisation, and taking into account the stacking height of
3 tonne per sq. mtr. and a turnover ratio of 12, the VOCPT has arrived at the optimal yard capacity at 7.35 MMTPA. In this regard, the VOCPT to clarify/ furnish the following:

(a). While fixing upfront tariff for a coal terminal at Visakhapatnam Port Trust (VPT) a stack height of 6 tonnes per Sq. metre was considered as against the norm of 3 tonnes per Sq. metre prescribed in the guidelines. The VOCPT also to review the yard capacity by considering a stack height of 6 tonnes per Sq. metre.

Optimal capacity of 3.32 MTPA considered in the cost statement for fixation of Tariff for Mechanisation of Loading system at the existing coal yard is the lowest one of Mechanical system capacity, Yard capacity and Traffic forecast. Hence, though considering 6Tper.sq.mtr, the lowest one is traffic forecast quantity only. By considering 6 tonnes per Sq. metre stack height, optimal capacity will be 14.69 MTPA, which will be higher than the considered Optimal capacity of 3.32 MTPA and 3.68 MTPA of plant capacity. Authority may take a decision in this regard.

(b). The actual turnover ratio in respect of coal achieved at the stack yard of VOCPT during the years 2011-12 to 2013-14 may be furnished.

Separate data for the proposed coal yard is not available.

c). The VOCPT has determined the optimal capacity of the stack yard at 7.35 MMTPA. However, taking into account the traffic forecast of coal at 6.64 MMTPA, the VOCPT is seen to have considered the said traffic forecast of coal at 6.64 MMTPA as base in its workings and has considered 50% of 6.64 MMTPA for evacuation by railway wagons. In this regard, it is relevant to mention here that the proposal filed by VOCPT is for fixation of Reference tariff. In the circumstances, and following 2008 tariff guidelines followed by the Authority in fixation of Reference tariff at the major port trusts including VOCPT in the past based on the optimal capacity of the facility, the VOCPT to review its proposal based on the optimal capacity of the stack yard instead of considering the forecasted traffic of coal as base.

By considering 6 tonnes per Sq. metre stack height as suggested by TAMP, the optimal capacity of the stack yard will be 14.69 MTPA. 50% of the capacity, i.e., 7.35 MTPA. Optimal capacity of the plant is 3.68 MTPA. Optimal capacity based on the traffic forecast is 3.32 MTPA. The lowest among the above three is taken as optimal capacity.

(ii). The assumption of considering 50% of the forecasted traffic of coal to pass through railway wagons and balance 50% to pass through trucks to be justified with reference to actual data pertaining to handling of coal at VOCPT during the years 2011-12 to 2013-14.

50% cargo through wagon was considered based on the Feasibility report.

(iii). The VOCPT to clarify as to why the evacuation pattern of 50% through railway wagons cannot be applied on the optimal stack yard capacity for determination of reference tariff instead of assessing the capacity based on traffic estimates.

As in (i)-c

(iv). The VOCPT is seen to have calculated the plant capacity by taking into account the deployment of 5 nos. of 20T truck, each undertaking 6 trips in 24 hours

As in (i)-c
and 365 days at 70% utilization. In this regard, the VOCPT to modify the plant capacity based on the yard capacity to be modified as required at point no. (i)(c) above.

(b). The basis for consideration of values for each parameter for assessment of plant capacity to be furnished.

1. 20T is the rated capacity of the truck.
2. To achieve the capacity of Wagon loading Silo, the no of trips and number of truck requirements were considered.

(v). From the workings of calculation of optimal capacity, it is seen that the VOCPT has pegged its capacity to the plant capacity, even though the yard capacity is seen to be higher. Considering the position that the traffic of coal would not be a constraint and since the stack yard has the capacity to stack more of coal, it may be appropriate to deploy a higher number of fleet of equipment so as to enable the optimum utilization of the stack yard. The VOCPT to modify its proposal in line with the above observation.

2. Capital Cost:

(i). The Project cost of ₹ 22.75 crores estimated by the VOCPT is “approximate”. The VOCPT to note that the correct estimation of project cost and optimum capacity are crucial for viability and success of a BOT project. The port, therefore, to avoid approximation in estimation of capital cost of the project and furnish correct estimate of project cost.

The corrected revised estimate cost is ₹19.55 Crores only excluding PMC and IDC Cost.

(ii). As already requested by us, *interalia*, under cover of our letter of even number dated 11 February 2015, the VOCPT to furnish equipment wise cost of each of the equipment proposed to be utilised.

The detailed equipment wise cost is available in the Feasibility Report. The same is furnished.

(The details of the Capital Cost is given below:

(A). Civil Works

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyor Supporting Bed</td>
<td>7.00</td>
</tr>
<tr>
<td>Conveyor (including Foundation)</td>
<td>271.00</td>
</tr>
<tr>
<td>Retaining wall (including excavation)</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>(A)</strong></td>
<td><strong>378.00</strong></td>
</tr>
</tbody>
</table>

(B). Mechanical Works

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covered Belt Conveyor (Capacity 2500 TPH) (420 metres)</td>
<td>96.00</td>
</tr>
<tr>
<td>Hoppers (5 nos.)</td>
<td>175.00</td>
</tr>
<tr>
<td>Silo for Rail Loading (1500 MT) (1 no.)</td>
<td>450.00</td>
</tr>
<tr>
<td>Front End Loaders (5 nos.)</td>
<td>500.00</td>
</tr>
<tr>
<td>Trucks (20 T) (5 nos.)</td>
<td>125.00</td>
</tr>
<tr>
<td>Miscellaneous items (Magnets, Metal Detectors, Belt Feeders, Belt Scales, Head Pulleys)</td>
<td>61.00</td>
</tr>
<tr>
<td>Spares</td>
<td>15.00</td>
</tr>
</tbody>
</table>
### Electrical Works
- Power Distribution System: 25.00
- Control & Automation: 25.00
- Lighting System: 10.00
- Communication System: 2.00

### Miscellaneous (5% of A + B + C)

### Total Capital Cost (A + B + C + D)

(iii). Similarly, as already requested by us, **interalia**, under cover of our letter of even number dated 11 February 2015, the VOCPT to furnish the documentary evidence in support of the cost of each of the equipment considered in the calculation. It is ascertained from the consultant that the cost of all the equipment were taken verbally from the reputed manufacturers of the individual equipment.

(iv). The VOCPT to furnish an analysis supported with workings to justify the number of each type of equipment envisaged to be used to evacuate the cargo, to show that given the productivity of each type of the equipment, the numbers of different equipment commensurate with the optimal capacity of coal envisaged to be evacuated from the stack yard. While doing so, the VOCPT to take into account the revision in the optimal capacity of the facility to be effected by VOCPT, for the reasons brought out earlier.

3. Operating Costs:

(i). The VOCPT is seen to have considered the power consumption at 1.4 units per tonne, based on the norm prescribed in the 2008 upfront tariff guidelines for a coal terminal. In this regard, it is relevant to mention here that the power consumption of 1.4 units per tonne is for operation of a full-fledged mechanized coal terminal undertaking the entire operation of unloading of coal from ship, storage at yard and for loading onto wagons/ trucks. In the case in reference, the scope of work is restricted to conveying the cargo from the users plot in the coal stack yard to the apron area, transfer the cargo from apron area to the fixed wagon loading side through the conveyors for loading into the Railway wagons. In view of the above position, the VOCPT to clarify/ furnish the following:

(a). Considering the power consumption of 1.4 units per tonne to be justified. The power consumption is estimated as 500 KVA. Power cost is calculated @ Rs/- per unit and the working is enclosed.

(From the copy of the Electricity Bill pertaining to December 2014, by taking into account the total amount as reflected in the Electricity Bill
as well as taking into account the no. of units consumed, the per unit of electricity is seen to be about ₹ 10.41, which has been considered by the VOCPT in its calculations.)

| (b). | The VOCPT may reassess the power consumption taking into account the actuals involved and the power consumption so considered may be validated with documentary evidence. | Re-assessed as (i)a of above. |
| (ii). | Please furnish documentary evidence in support of the cost of per unit of electricity considered at ₹ 8/- in the calculations. | Furnished. |
| (iii) | The basis for considering: | |
| (a). | The fuel consumption at 20 litres per hour in respect of Front End Loaders | As per the actual consumption of Front End Loaders ascertained from the Port users. |
| (b). | The fuel consumption at 5 litres per hour in respect of Trucks. | As per the Feasibility Report. (The Feasibility Report furnished by the VOCPT for the proposal in reference does not reflect the fuel consumption in respect of the Trucks. The Feasibility Report in respect of the other case relating to VOCPT being disposed simultaneously, reflects the fuel consumption at 2.4 litres per hour. In this connection, the VOCPT has also vide its letter dated 02 March 2015 has requested to consider the fuel consumption for truck at the rate of 2.4 Ltr per hour as considered in another proposal of Mechanisation of berth No. III/IV based on the Feasibility Report.) |
| (c). | The fuel consumption at 5 litres per hour in respect of Hoppers. | As per the Feasibility Report |
| (iv). (a) | In computation of plant capacity, the VOCPT has envisaged that the trucks will undertake trips for 6132 hours (24x365x0.7) per annum. That being so, the reason for considering only 4000 hours for estimation of fuel cost for trucks to be furnished. | 4000 Hrs is taken as per TAMP Guidelines. |
| (b). | 2008 Guidelines prescribed a norm of 4000 hours of working in a year for estimation of fuel cost for equipment for a multipurpose berth. However, 6132 hours of working are considered for a full-fledged berth and the norms of 4000 hours of working is considered for standalone equipment. Further, the VOCPT has considered 6132 hours of working for stack yard capacity working. The VOCPT to review 4000 hours of working considered for fuel estimation for front end loaders and Hoppers. | 4000 Hrs is taken as per TAMP Guidelines. |
| (v). | Please confirm whether the rate of depreciation considered at 6.33% on the Mechanical Equipment is as per the provisions of the Companies Act, 2013. The VOCPT also to give reference to the requisite prescription contained in the companies Act, 2013 indicating the said rate of depreciation. | Furnished. (The VOCPT has furnished an extract of the Depreciation Rate Chart as per Part ‘C’ of Schedule II of the Companies Act, 2013, which reflects a depreciation rate of 6.33% as per Straight Line Method (SLM) in respect of Plant & Machinery other than continuous process plant not covered under specific.) |
| (vi). (a). | The licence fee is leviable on the land. The rationale behind estimating levy | The licensee requires area for parking Front end loaders and trucks in addition to the area |
of licence fee on Plant, Trucks and Front end loaders to be explained. required for commissioning of the plant. Hence, lease rent as per VOCPT- Land policy is considered.

(b). The nature of parameters and basis thereof considered for estimation of license fee for plant, trucks and front end loaders may be furnished. The dimensions of area to be allotted for plant & equipment along with working is furnished in the application.

4. Scale of Rates:

(i). The stack yard would be utilized to handle coal. The VOCPT is also seen to have adopted the norms as applicable to a coal terminal to arrive at per tonne handling rate. In view of the above position, the reason for prescribing the description in the Scale of Rates for handling charges as "Dry Bulk Cargo" instead of "Coal" may be explained.

Dry bulk cargo means coal, coke and limestone and this may be included in the Commodity column.

[Subsequently, the VOCPT under cover of its letter dated 02 March 2015, has, interalía, stated that as the cargo proposed to be handled under this project viz. coal, coke and limestone have similar handling rate and similar stacking height, the same rate is proposed for the above cargoes under the category of dry bulk cargo. Further, it is also informed that out of the total cargo handled, 95% of cargo handled in the coal stackyard is coal.]

(ii). A general note governing application of Wholesale Price Index (WPI) based indexation factor may also be prescribed in the proposed draft Scale of Rates.

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 2015 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. This may be incorporated in the Scale of Rates.

(iii). As per Government Policy, vide Order no. TAMP/4/2004- Genl. dated 07 January 2005, concessional rates in case of cargo related charges are applicable for ship-shore transfer and transfer from quay to storage yard. The proposal for prescription of concessional rate to transport coal beyond the stack yard may be reviewed in light of the coastal concession policy of the Government.

Coastal rates may please be deleted.

5. Performance Standards:

As already requested under cover of our letter of even number dated 11 February 2015, the VOCPT is again requested to furnish the Performance Standards, pertaining to levy of the handling charges.

Copy of the performance Standard has been furnished.

7. A joint hearing on the case in reference was held on 20 February 2015 at the VOCPT premises. The VOCPT made a brief power point presentation of its proposal. At the joint hearing, the VOCPT and the concerned users/organization bodies and Prospective bidders have made their submissions.

8.1. In continuation of the reply furnished by VOCPT vide its letter dated 25 February 2015, the VOCPT under cover of its letter dated 27 February 2015 has furnished a revised cost statement. It has also furnished additional submissions, the summary of which is as given below:

(i). The optimal capacity is revised among the least one of the yard capacity and capacity of the mechanised system. Hence, the mechanised system capacity viz., 3.68 MTPA is considered as optimal capacity.
(ii). The capital cost is also revised excluding the cost of IDC and Project Management cost and the revised capital cost considered is ₹. 19.55 crores.

(iii). The revised final Feasibility Report has been circulated among the Port Users and copy of the same also submitted to the Authority for consideration.

(iv). Power cost is revised with reference to actual power requirement for the Project and power cost works out to ₹. 317.89 lakhs and the same is suitably incorporated in the tariff workings.

(a). the working hours viz. 6,132 hours is considered for fuel cost with respect to actual working hours of the Mechanised System (365 days x 0.70 x 24 hours =6,132 hours)

(b). as the type of Hoppers proposed in the System does not require any fuel, the fuel cost considered earlier is removed in the revised working.

(v). The Performance Standards stipulated earlier by the Port, may please be modified as follows:

The License shall meet both the following Performance Standards:

(a). The Minimum guaranteed availability of 90% of Mechanised Loading System per month. The availability shall be calculated for the total mechanised system and

(b). The License shall complete the loading of half a rake consisting of 30 wagons of each 66 Tonnes carrying capacity in fifty minutes

(c). The Lease rent is considered for the ground level pit area and way leave charges is considered for the area to be occupied by the conveyor (525 x 4.50 sqm = 2,363 sqm).

8.2. Based on the above position, the VOCPT has furnished a revised cost statement. A comparative position between the original proposal as furnished by the VOCPT vide its letter dated 06 February 2015 as well as the revised proposal furnished under cover of its letter dated 27 February 2015 is tabulated below:

(₹ In Lakhs)

<table>
<thead>
<tr>
<th>S.N o</th>
<th>Particulars</th>
<th>As per VOCPT proposal dated 06.02.2015</th>
<th>As per VOCPT revised proposal dated 27.02.2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Workings</td>
<td>Estimate s</td>
</tr>
<tr>
<td>I</td>
<td>Optimal Capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capacity of the Yard Area as per Feasibility Report</td>
<td>4,16,412 sqm</td>
<td>4,16,412 sqm</td>
</tr>
<tr>
<td></td>
<td>0.70 x 4,16,412x0.70 x 3 T/sq.mtr. x 12 (Turn over Ratio) (As per Guidelines) * 50% of cargo considered for wagon loading</td>
<td>73,45,508</td>
<td>73,45,508</td>
</tr>
<tr>
<td></td>
<td>7.35 MT</td>
<td>7.35 MT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Assuming 50% of the cargo moved by Rail out of Forecast 6.64 MT</td>
<td>3.32 MT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(c) Plant capacity (20T per trip x 6 trips per hour x 24 hrs x 5 Trucks x 0.70)</td>
<td>3.68 MT</td>
<td>3,679,200</td>
</tr>
<tr>
<td></td>
<td>3.32</td>
<td>3.68 MT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hence, the Capacity is restricted to (b) which is the least</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>Capital Cost of the project (₹ Lakhs)</td>
<td>2275.20</td>
<td>1955.00</td>
</tr>
<tr>
<td>III</td>
<td>Operating cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Electricity Cost: Power required for conveyor, Silo etc.,= 1.4 Unit/ Ton as per TAMP Guidelines- 2008</td>
<td>3320000<em>1.4</em>₹ 8/- per unit</td>
<td>3679200<em>0.83</em>₹ 10.41 per unit</td>
</tr>
</tbody>
</table>
2. **Fuel cost:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2(a) Fuel cost for Front end loaders:</td>
<td>4000 Hrs<em>20 ltrs/Hr</em>50.48*5Nos</td>
<td>6132 Hrs<em>20 ltrs/Hr</em>50.48*5Nos</td>
</tr>
<tr>
<td>2(b) Fuel cost for Trucks:</td>
<td>4000 Hrs<em>5 Ltrs/Hr</em>50.48*5Nos</td>
<td>6132 Hrs<em>5 Ltrs/Hr</em>50.48*5Nos</td>
</tr>
</tbody>
</table>

3. **Repairs & Maintenance cost**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3(a) 1% on total cost of civil works</td>
<td>₹ 378 * 1%</td>
<td>₹ 378 * 1%</td>
</tr>
<tr>
<td>3(b) 7% on total cost of Mech &amp; Elect works</td>
<td>₹ 1484 * 7%</td>
<td>₹ 1484 * 7%</td>
</tr>
</tbody>
</table>

4. **Insurance**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>₹ 2275 * 1%</td>
<td>₹ 1955 * 1%</td>
</tr>
</tbody>
</table>

5. **Depreciation (As per norms prescribed in Companies Act)**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6.33% on total cost of Mech &amp; Elect works</td>
<td>₹ 1484.00*6.33%</td>
</tr>
</tbody>
</table>

6. **Rent (License Fee)**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Plant</td>
<td>(525*50) Sq.Mtr * ₹ 348.68</td>
<td>91.53</td>
</tr>
<tr>
<td>For the area of ground level – Pit (Lease Rent)</td>
<td>- -</td>
<td>(50*50) Sq.Mtr * ₹ 348.68</td>
</tr>
<tr>
<td>For the conveyor area – way leave charges</td>
<td>- -</td>
<td>(525*4.5) Sq.Mtr * ₹1.42 per sqm per annum</td>
</tr>
<tr>
<td>(b) Trucks and Front end loaders</td>
<td>12<em>3</em>5)+(12<em>3</em>5) Sq.Mtr</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>₹ 348.68</td>
<td>348.68</td>
</tr>
</tbody>
</table>

7. **Other Expense**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>5% of Gross fixed Asset Value</td>
<td>₹ 113.76</td>
</tr>
<tr>
<td></td>
<td>5% of Gross fixed Asset Value</td>
<td>₹ 97.75</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Total (1) to (7))</td>
<td></td>
<td>1,033.73</td>
</tr>
</tbody>
</table>

IV. **ROCE**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>16% on capital cost</td>
<td>364.03</td>
</tr>
<tr>
<td></td>
<td>16% on capital cost</td>
<td>312.80</td>
</tr>
</tbody>
</table>

V. **Annual Revenue Requirement**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>₹ 1,469.64</td>
<td>₹ 1,346.53</td>
</tr>
</tbody>
</table>

VI. **Proposed rate per Shift**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VII</td>
<td>Proposed rate per tonne</td>
<td>Foreign</td>
</tr>
<tr>
<td></td>
<td>( Foreign Revenue Requirement (in. ₹) / Capacity ( in tonnes ) )</td>
<td>44.27</td>
</tr>
<tr>
<td></td>
<td>Coastal</td>
<td>26.56</td>
</tr>
<tr>
<td></td>
<td>Coastal</td>
<td>21.96</td>
</tr>
</tbody>
</table>

9. In continuation of the reply furnished by VOCPT vide its earlier letter dated 27 February 2015, the Port has vide its letter dated 02 March 2015 made the following additional submissions:

(i). As the cargo proposed to be handled under this project viz. coal, coke and limestone are having the similar handling rate and similar stacking height, the same rate is proposed for the above cargoes under the category of dry bulk cargo. Further, it is also informed that out of the total cargo handled, 95% of cargo handled in the coal stackyard is coal.

(ii). Further, the reply in respect of Sl. No. (I) (v) already furnished by the Port vide letter of even number dated 25 February may please be ignored. In this connection, it is confirmed that the proposed earmarking of the area of the stackyard is in line with the Land use plan of the Port.

(iii). It is also informed that in the proposal submitted for the above project, the depreciation for the civil structure involved is left out. The Authority may consider the relevant depreciation at the rate of 3.17% as per Companies Act, 2013.

(iv). The Authority may please consider the fuel consumption for truck at the rate of 2.4 Ltr per hour as considered in another proposal of Mechanisation of berth No. III/IV based on the Feasibility Report.
10. The proceedings relating to consultation in this case are available on records at the office of this Authority. An excerpt of the 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 the case, the following position emerges:

(i). According to V.O Chidambaranar Port Trust (VOCPT), the industrial coal coming at the port is currently being stacked in the coal yard by the various port users in their respective allotted slots and further transported to the end users through wagon/ trucks as and when required. The current system of moving the cargo by trucks from the coal yard to VOC Wharf for loading in the wagons placed on the wharf line, is reported to be time consuming and resulting in slow evacuation of cargo from the coal stack yard and also leading to ineffective utilization of the total stack yard area. Thus, in order to mitigate the poor evacuation rate and to increase cargo turnaround of the stack yard and to reduce pollution, the VOCPT has proposed to install a suitable mechanised handling system at the coal stack yard. In the proposed system, the cargo from the users plot in the coal stock yard would be transported to the apron area through front end loaders and trucks. Then, the cargo will be transferred to the fixed wagon loading silo installed near the apron area through conveyors and through the silo the cargo will be loaded into the Railway wagons. Thus, the VOCPT has come up with a proposal in reference for fixation of Reference tariff for transportation of cargo from the coal yard to wagon/ truck through conveyor system.

(ii). Clause 2.4 of the tariff guidelines of 2013 stipulates that if in the view of the Major Port Trust, the tariff determined for a particular commodity under 2008 guidelines at that Major Port Trust or any other Major Port Trust is not a representative Reference Tariff for that commodity, then the Major Port is free to approach this Authority with a proposal to fix Reference Tariff under 2008 guidelines for the project giving detailed and sufficient justification. As stated earlier, proposal in reference for fixation of Reference tariff for transportation of cargo from the coal yard to wagon/ truck through conveyor system. Though upfront tariff is available for handling of various types of dry bulk cargo for the entire movement of cargo from ship to yard and yard to truck/ wagon, no upfront tariff is available for mechanisation of the truncated movement of cargo from yard to wagon. That being so, the proposal is seen to have been filed by the VOCPT under 2013 guidelines by following the principles of 2008 guidelines. The proposal of VOCPT is seen to have the approval of its Board of Trustees.

(iii). The proposal of the VOCPT is for fixation of Reference tariff for the arrangement of mechanization of loading system at the existing coal yard. The cargo proposed to be handled under this project are coal, coke and limestone, of which 95% of cargo handled would be coal. Based on this position, the VOCPT is seen to have considered the norms prescribed in the 2008 upfront tariff guidelines for a coal terminal, as base to arrive at the handling charges. The VOCPT has also confirmed that the other cargo like coke and limestone have similar handling rate and similar stacking height. Based on the submission made by the VOCPT, the approach adopted by VOCPT to consider the norms prescribed in the 2008 upfront tariff guidelines for a coal terminal, as base to arrive at the handling charges, is taken into account.

(iv). The VOCPT has filed its proposal on 06 February 2015. Subsequently, based on the information/ clarifications sought by us during the processing of the case, the VOCPT under cover of its letter dated 25 and 27 February 2015 has updated its proposal. The updation is seen to be with reference to reduction in capital costs (to the extent of exclusion of costs pertaining to IDC and PMC) and the resultant change in some items of operating cost as well as change in the power cost and fuel cost forming part of the operating cost. The updated proposal of the VOCPT along with the information/ clarification furnished by VOCPT during the processing of the case in reference is considered in this analysis.
(v). **Optimal Capacity:**

(a). **Yard Capacity:**

(i). Considering the area of the stack yard at 416412 sq. mtrs. with 70% utilisation, and taking into account the stack height of 3 tonne per sq. mtr. and a turnover ratio of 12, the VOCPT has arrived at the optimal yard capacity at 7.35 MMTPA. Thereafter, considering the position that only 50% of the stacked cargo would move by rail, the yard capacity has been assessed at 50% of 7.35 MMTPA.

(ii). The earmarking of the area of the stack yard at 416412 sq. mtrs. is reported to be in line with the Land use plan of the Port. Out of the said area of the stackyard, the VOCPT is seen to have taken into account 70% of the area as available for stacking, in line with the norm contained in the upfront guidelines for coal terminal for calculation of yard capacity.

(iii). The stack height of 3 tonne per sq. mtr. as considered by the VOCPT is as per the upfront tariff fixation guidelines for coal terminal. In this connection, it is to state that in fixing upfront tariff for the coal terminal at Visakhapatnam Port Trust (VPT) a stack height of 6 tonnes per Sq. metre has been considered as against the norm of 3 tonnes per Sq. metre prescribed in the guidelines. In this regard, it has to be recognized that in the stackyard of the case in reference, limestone and coke are also envisaged to be stacked and handled along with coal. In view of this position, the VOCPT appears to have considered a stack height of 3 tonne per sq. mtr., which is relied upon in the analysis. Even if stacking height of 6 tonnes per sq.mtr. is considered, the plant capacity in terms of transportation of cargo to wagon loading silo as well as 50% of yard capacity is the limiting factor as can be noted from succeeding paragraphs.

(iv). The Turnover ratio of 12 considered by VOCPT is seen to be as per the upfront tariff fixation guidelines for coal terminal and hence considered in the analysis.

(v). Based on the formula prescribed in the upfront tariff fixation guidelines for coal terminal and taking into account the various parameters as furnished by the VOCPT as discussed above, the yard capacity at 70% utilization works out to 7345508 tonnes per annum, as assessed by the Port.

(vi). Thereafter, considering the position that 50% of the yard capacity would pass through railway wagons, the optimal capacity works out to 3672754 tonnes. The position about 50% of the cargo would pass through railway wagons is reported to be based on the Feasibility Report, which is relied upon.

There appears to be an arithmetical error in the calculation furnished by the VOCPT, which has been rectified. Therefore, 50% of the yard capacity which would pass through railway wagons works out to 3.67 MMTPA instead of 3.32 MMTPA as assessed by the VOCPT.

(b). **Plant Capacity:**

The VOCPT is seen to have calculated the plant capacity by taking into account the deployment of 5 nos. of 20T truck (based on the Feasibility Report), each undertaking 6 trips in 24 hours and 365 days at 70%
utilization. Based on these parameters, the VOCPT has arrived at the plant capacity at 3.68 MMTPA. The Plant Capacity determined by the VOCPT is seen to be in tandem with the derived yard capacity.

(c). Thus, the 50% yard capacity, being lower among the two viz., full Yard capacity and Plant Capacity, at 3672754 tonnes per annum is considered as the optimal capacity of the mechanisation system.

(vi). Capital Cost:

(a). The capital cost as estimated by the VOCPT in its revised proposal is ₹19.55 crores of which, ₹3.78 crores is towards civil works, ₹14.22 crores towards Mechanical Equipment, ₹0.62 crores towards Electrical works and ₹0.93 crores towards Miscellaneous capital costs.

(b). Civil Costs:

The upfront tariff guidelines require consideration of the civil cost as per the estimates given by the Port Trust. In this regard, the VOCPT has estimated the civil costs relating to the proposed facility at ₹3.78 crores. This estimated cost pertains to the cost of Conveyor Supporting Bed, Conveyor (including Foundation) and Retaining wall (including excavation). The civil costs as reported by the VOCPT is seen to be as per the Feasibility Report and thus, relied upon in the analysis.

(c). Equipment/ Mechanical cost:

(i). The estimated Equipment cost to the tune of ₹14.22 crores pertains to the cost of 420 metres length Covered Belt Conveyor of Capacity of 2500 TPH, 5 nos. of Hoppers, 1 no. of Silo for Rail Loading of 1500 MT, 5 nos. of Front End Loaders, 5 nos. of 20 tonne Trucks, cost of items like Magnets, Metal Detectors, Belt Feeders, Belt Scales, Head Pulleys and cost of Spares.

(ii). The Feasibility Report furnished by VOCPT states that as the objective of the facility is to enable faster evacuation of cargo through rail, the proposed Silo of capacity 1500 tonnes would be filled prior to the arrival of the rake. Also, the existing siding at the coal yard can accommodate only the half rake due to its restricted length. So, the Silo can discharge 1500 tonnes of cargo to the half rake in 25 minutes at a rate of one wagon (60 Tonnes) per minute. Till that time, the conveyor will keep on filling the silo at the rate of 2000 TPH. After completion of loading operation to the first half of the rake, it is assumed that it would require approximately 30 minutes for the second rake to take its position on the existing siding. Hence, the time taken by the shunting of the rake would be utilized for filing the silo. Based on the above position, it appears that the productivity and the numbers/capacity of each type of the equipment may commensurate with the optimal capacity of dry bulk cargo envisaged to be evacuated from the stack yard.

(iii). Based on the above position and since the number of equipment considered by the port is as per the Feasibility Report and also since none of the users/ prospective bidders have raised any objection with regard to the number of each and every equipment, the number/capacity of each equipment as proposed by the port is relied upon in the analysis.

(iv). Though no documentary evidence in support of the base rate of each of the equipment is furnished despite a request made to the VOCPT, the estimated cost of each of the equipment is based on
the position ascertained from the reputed manufacturers of the individual equipment. Since the cost of each equipment considered by the port is as per the Feasibility Report and also since none of the users/prospective bidders have raised any objection with regard to the cost of equipment, the cost of each equipment as estimated by the port is relied upon in the analysis.

(d). Electrical costs:

The electrical costs at ₹ 0.62 crores pertains to cost of Power Distribution System, Control & Automation, Lighting System and Communication system. The said estimates are seen to be as per the Feasibility Report and hence considered in the analysis.

(e). Miscellaneous costs:

The Miscellaneous capital costs have been estimated at 5% of the total civil, equipment and electrical costs as discussed earlier, which is seen to be as per the upfront guidelines and hence relied upon in the analysis.

(f). Thus, the aggregate capital cost for the facility as estimated by the Port at ₹ 19.55 crores is relied upon in this analysis.

(vii). The VOCPT has calculated the return on capital employed at 16% of the estimated capital cost, as prescribed in the guidelines.

(viii). Operating cost:

(a). Power cost:

The Power cost has been calculated for the optimal capacity based on the power consumption at 0.83 units per tonne at the rate of ₹ 10.41 per unit.

Based on the position that the norm for the power consumption at 1.4 units per tonne under 2008 Guidelines for operation of a full-fledged mechanized coal terminal for undertaking the entire operation of unloading of coal from ship, storage at yard and for loading onto wagons/trucks, the consideration of the power consumption at 0.83 units per tonne by VOCPT for the truncated operation involved in movement of cargo from yard to wagon, appears to be reasonable. The VOCPT has also stated that the power cost is based on the actual power requirement for the project. The estimation with regard to the power consumption per tonne as furnished by the port is considered in the analysis.

The rate of ₹ 10.41 for per unit of power is validated by the VOCPT with a documentary evidence and hence considered in the analysis.

(b). Fuel cost:

(i). The fuel cost has been estimated in respect of front end loaders and trucks for a period of 6132 hours of operation and at the rate of ₹ 50.48 per litre.

(ii). In respect of front end loaders, fuel consumption has been considered at 20 litres per hour reportedly based on the actual consumption of Front End Loaders ascertained from the Port users. This position is relied upon.

(iii). In respect of trucks, though the VOCPT had considered the fuel consumption at 5 litres per hour, it has subsequently requested to consider the fuel consumption in respect of trucks at 2.4 litres per hour as considered in the Feasibility Report pertaining to another
proposal of VOCPT relating to Mechanisation of berth No. III/IV. Accordingly, the fuel consumption in respect of trucks is considered at 2.4 litres per hour.

(iv). The rate of fuel at ₹ 50.48 per litre is validated based on a documentary evidence and hence considered in the analysis.

(c). Repairs and maintenance cost on civil work is estimated by VOCPT at 1% on the civil cost and 7% on mechanical equipment and electrical equipment cost, which are in line with the norms prescribed in the guidelines of 2008. In addition, Repairs and maintenance cost is also considered on the component of civil cost as well as Mechanical and Electrical costs forming part of the Miscellaneous Capital costs in our analysis.

(d). Insurance cost is estimated at 1% of the gross fixed assets and other expenses are estimated at 5% of the gross value of fixed assets by VOCPT, which are in line with the norms prescribed in the guidelines.

(e). (i). Depreciation, as per the guidelines, should be calculated following the depreciation rates as per Straight Line Method (SLM) prescribed in the Companies Act. The VOCPT has calculated depreciation @ 6.33% on mechanical and electrical cost. The VOCPT has furnished relevant extract of the Companies Act, 2013, in support of the rate considered.

(ii). The VOCPT is not seen to have considered deprecation on civil assets in its revised cost statement. Subsequently, the VOCPT has made a request to consider depreciation at 3.17% on civil assets based on the rates prescribed in the Companies Act, 2013. The rate of depreciation at 3.17% is seen to be based on the extract of the Companies Act, 2013, furnished by the port and hence considered in the analysis.

(iii). In addition, depreciation cost is also calculated on other assets duly considering the rate in proportion to the component of civil and equipment cost forming part of the Miscellaneous Capital costs in our analysis.

(f). (i). The guidelines for upfront tariff stipulate that licence fee for port land is to be estimated based on the rates prescribed in the Scale of Rates of the respective Major Port Trusts.

(ii). Licence fee has been estimated by the port in respect of Area of ground level Pit of 50 * 50 sq.mtr., Conveyor area of 525 * 4.5 sq.mtr. and in respect of the area to be occupied by 5 nos. of each of Trucks and Front end loaders with a dimension of 12 * 3 sq.mtr.

(iii). In respect of Area of ground level Pit and in respect of the area to be occupied by 5 nos. of each of Trucks and Front end loaders, the VOCPT has adopted the rate of licence fee at ₹ 348.68 per sq. mtr., which is seen to be as per the prevailing Scale of Rates.

(iv). In respect of Conveyor area, the VOCPT has adopted the rate of way leave charges at ₹ 1.42 per sq. mtr, which is also seen to be as per the prevailing Scale of Rates.

(g). The total operating cost based on the above analysis works out to ₹1015.60 lakhs as against ₹1033.73 lakhs estimated by the VOCPT.
The cost statement for fixing Reference tariff submitted by VOCPT is modified in line with the above analysis. A copy of the modified statement is attached as Annex - I.

(a). The total Annual Revenue Requirement (ARR) works out to ₹ 1328.41 lakhs, which is an aggregate of operating cost (₹ 1015.60 lakhs) and 16% return on capital cost (₹ 312.81 lakhs), as against the Annual Revenue Requirement estimated by the port at ₹ 1346.55 lakhs.

(b). The VOCPT has envisaged recovery of the entire assessed ARR from the optimal capacity of the facility. Accordingly, considering the updated ARR at ₹ 1328.41 lakhs and the optimal capacity of the facility at 3672754 tonnes, the rate works out to ₹ 36.17 per tonne.

(c). Based on the position conveyed by the VOCPT that cargo like coke, limestone and coal have similar handling rates, a common rate is being prescribed for transportation of all types of cargo i.e. coke, limestone and coal from the coal yard to wagon/ truck through conveyor system, in line with the approach proposed by the VOCPT. Further, the VOCPT is of the view that the entire cargo handled would be only foreign cargo. Nevertheless, coastal rate has been prescribed at 60% of the foreign rate, as proposed by the port.

(xi). The Government of India in the Ministry of Shipping (MOS) undercover of its letter No. PT-11033/51/2014-PT dated 11 November 2014 has forwarded a copy of the guidelines on priority berthing of coastal vessels at Major Port issued vide letter No.PT-11033/51/2014-PT dated 4 September 2014 to this Authority. Accordingly, this Authority vide its Order no. TAMP/52/2014-Genl. dated 28 November 2014 has, interalia, approved the replacement of definition of 'Coastal Vessel' prescribed in the existing SOR of all the Major Port Trusts as follows:

"Coastal vessel" shall mean any vessel exclusively employed in trading between any port or place in India to any other port or place in India having a valid coastal licence issued by the Director General of Shipping/ Competent Authority.

Therefore, the definition of Coastal Vessel proposed by the VOCPT has been modified in line with the above mentioned definition of 'Coastal Vessel'.

(xii). The VOCPT has proposed a general note relating to indexation factor for automatic adjustment every year giving the base WPI to be considered for such indexation. Since the cost estimates considered in the reference tariff calculation are based on the market rate pertaining to the year 2015, it is found appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2015, as proposed by the Port. Thus, the note in this regard as proposed by the Port is incorporated in the reference tariff schedule.

(xiii). Clause 2.2 of the revised tariff guidelines of 2013 requires this Authority to prescribe the Reference Tariff along with the Performance Standards. Though the revised guidelines of 2013 do not require this Authority to go into the Performance Standards proposed by the port it is not unreasonable to assume that the ports would propose reasonable and achievable Performance Standard. As brought out earlier, as per the Performance Standard Schedule proposed by the Port, the licensee shall meet both the Performance Standards i.e. the Minimum guaranteed availability of 90% of the Mechanised Loading System per month as well as completing the loading of half a rake consisting of 30 wagons of each 66 tonnes carrying capacity in fifty minutes. The Performance Standards as proposed by the Port are prescribed.

(xiv). The general note that the users will not be required to pay charges for delay beyond a reasonable level attributable to the operator is incorporated in the SOR.
Subject to above analysis, the Reference Tariff Schedule and the Performance Standards as proposed by the port are attached as Annex – II and Annex - III respectively.

In the result, and for the reasons given above and based on a collective application of mind, this Authority approves the Reference Tariff Schedule for Mechanization of Loading System at the Existing Coal Yard on License Basis in VOCPT and notify it alongwith the Performance Standards.

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

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

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

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

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

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

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

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

From the third year of operation, the Performance Linked Tariff proposal from the Licensee shall be automatically notified by this Authority subject to the achievement of Performance Standards in the previous 12 months period as certified by the Independent Engineer. The Licensee, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and TAMC shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.
13.9. As stipulated in Clause 6.2 of the revised 2013 guidelines, in the event any user has any grievance regarding non-achievement by the Licensee of the Performance Standards as notified by this Authority, he may prefer a representation to this Authority which, thereafter, shall conduct an inquiry into the representation and give its finding to the VOCPT. The VOCPT will be bound to take necessary action on the findings as per the provisions of the respective Licence Agreement.

13.10. As stipulated in Clause 6.3.1 of the revised 2013 guidelines, within 15 (fifteen) days of the signing of the Licence Agreement, the concerned operator will forward the Licence Agreement to this Authority which will host it on its website.

13.11. As stipulated in Clause 6.3.2 of the revised 2013 guidelines, the Licensee shall furnish to this Authority quarterly reports on cargo traffic, ship berth day output as well as the tariff realized for each berth. The quarterly reports shall be submitted by the PPP operator within a month following the end of each quarter. Any other information which is required by this Authority shall also be furnished to them from time to time.

13.12. As stipulated in Clause 6.3.3 of the revised 2013 guidelines, this Authority shall publish on its website all such information received from PPP operator. However, this Authority shall consider a request from the Licensee about not publishing certain data/information furnished which is commercially sensitive. Such requests should be accompanied by detailed justification regarding the commercial sensitiveness of the data/information in question and the likely adverse impact on their revenue/operation of upon publication. This Authority’s decision in this regard would be final.

13.13. 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.

13.14. The performance norms for the project should be clearly brought out in the bid documents. The Licensee is expected to perform at least at the performance norms brought out in the bid document/License agreement.

13.15. The actual performance of the Licensee 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 VOCPT. If any action is to be taken against the operator, the VOCPT shall initiate appropriate action in accordance with the provisions of the relevant Licence Agreement.

(T.S. Balasubramanian)
Member (Finance)
## OPTIMAL CAPACITY

### (i). Yard Capacity:
- **Area of the yard (A) (in sq. metres)**: 416412
- **Percentage of total are used for stacking (P)**: 70%
- **Quantity stacked (Q) (tonnes/ sq. metres)**: 3
- **Turnover Ratio (T)**: 12
- **Capacity ( A x P x Q x T x 70%) (in metric tonnes)**: 7345508
- **Percentage of cargo moving through Rail**: 50%
- **Relevant Capacity (in metric tonnes)**: 3320000

### (ii). Plant capacity
- **Capacity of truck (C ) (in tonnes)**: 20
- **No. of trips in an hour (T)**: 6
- **No. of hours in a day (H)**: 24
- **No. of days per annum (D)**: 365
- **No. of trucks (S)**: 5
- **Capacity ( C x T x H x D x S x 0.7) (in metric tonnes)**: 3679200

## OPTIMAL CAPACITY (in MMTPA)

### CAPITAL COST

#### (A). Civil Works
- Conveyor Supporting Bed: 7.00
- Conveyor (including Foundation): 271.00
- Retaining wall (including excavation): 100.00
- **Total (A)**: 378.00

#### (B). Mechanical Works
- Covered Belt Conveyor (Capacity 2500 TPH) ( 420 metres): 96.00
- Hoppers ( 5 nos. ): 175.00
- Silo for Rail Loading (1500 MT) ( 1 no. ): 450.00
- Front End Loaders ( 5 nos. ): 500.00
- Trucks (20 T) ( 5 nos. ): 125.00
- Miscellaneous items (Magnets, Metal Detectors, Belt Feeders, Belt Scales, Head Pulleys): 61.00
- Spares: 15.00
- **Total (B)**: 1422.00

#### (C). Electrical Works
- Power Distribution System: 25.00
- Control & Automation: 25.00
- Lighting System: 10.00
- Communication system: 2.00
- **Total (C)**: 62.00

#### (D). Miscellaneous (5% of A + B + C)
- **Total (D)**: 93.10

## TOTAL CAPITAL COST (A + B + C + D)
- **Total**: 1955.10

---

*COST STATEMENT FOR FIXATION OF REFERENCE TARIFF FOR MECHANISATION OF LOADING SYSTEM AT THE EXISTING COAL YARD AT AT V. O. CHIDAMBARANAR PORT TRUST*

*Annex-I (Rs. In Lakhs)*
### III OPERATING COST:

**Power Cost**
- VOCP: 3679200 tonnes * 0.83 unit per tonne * Rs. 10.41 per Unit
- TAMP: 3672754 tonnes * 0.83 unit per tonne * Rs. 10.41 per Unit

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Cost</td>
<td>317.89</td>
<td>317.34</td>
</tr>
</tbody>
</table>

**Fuel cost:**

- **(a)**: Front end loaders
  - VOCP: 6132 Hrs * 20 ltrs per Hr * Rs. 50.48 per litre * 5 Loaders
  - TAMP: 6132 Hrs * 20 ltrs per Hr * Rs. 50.48 per litre * 5 Loaders

- **(b)**: Trucks
  - VOCP: 6132 Hrs * 2.4 Ltrs per Hr * Rs. 50.48 per litres * 5 Trucks
  - TAMP: 6132 Hrs * 2.4 Ltrs per Hr * Rs. 50.48 per litres * 5 Trucks

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel cost</td>
<td>309.54</td>
<td>309.54</td>
</tr>
</tbody>
</table>

**Repairs & Maintenance cost**

- **(a)**: Civil works
  - VOCP: 1% on Civil Costs
  - TAMP: 1% on Civil Costs incl. the component of civil costs in Other Capital costs

- **(b)**: Mech & Elect works
  - VOCP: 7% on Mechanical & Electrical Costs
  - TAMP: 7% on Mechanical & Electrical Costs incl. the component of Mechanical & Electrical costs in Other Capital costs

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repairs &amp; Maintenance cost</td>
<td>3.78</td>
<td>3.97</td>
</tr>
<tr>
<td>(a) Civil works</td>
<td>103.88</td>
<td>109.07</td>
</tr>
<tr>
<td>(b) Mech &amp; Elect works</td>
<td>19.55</td>
<td>19.55</td>
</tr>
</tbody>
</table>

**Depreciation:**

- **(a)**: Mech & Elect works
  - VOCP: 6.33% on Mechanical & Electrical Costs
  - TAMP: 6.33% on Mechanical & Electrical Costs incl. the component of Mechanical & Electrical costs in Other Capital costs

- **(b)**: Civil Assets
  - VOCP: 3.17% on Civil Costs incl. the component of civil costs in Other Capital costs

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation</td>
<td>93.94</td>
<td>98.63</td>
</tr>
<tr>
<td>(a) Mech &amp; Elect works</td>
<td>0.00</td>
<td>12.58</td>
</tr>
</tbody>
</table>

**Rent (License Fee)**

- **(a)**: Area of ground level (Pit)
  - VOCP: (50 * 50) sq.mtr. * Rs. 348.68 per sq. mtr
  - TAMP: (50 * 50) sq.mtr. * Rs. 348.68 per sq. mtr

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent (License Fee)</td>
<td>8.72</td>
<td>8.72</td>
</tr>
</tbody>
</table>

- **(b)**: Conveyor area
  - VOCP: (525 * 4.5) sq.mtr. * Rs. 1.42 per sq. mtr per annum
  - TAMP: (525 * 4.5) sq.mtr. * Rs. 1.42 per sq. mtr per annum

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyor area</td>
<td>0.03</td>
<td>0.03</td>
</tr>
</tbody>
</table>

- **(c)**: Trucks and Front end loaders
  - VOCP: (12 * 3 * 5) + (12 * 3 * 5) sq.mtr. * Rs. 348.68 per sq. mtr
  - TAMP: (12 * 3 * 5) + (12 * 3 * 5) sq.mtr. * Rs. 348.68 per sq. mtr

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks and Front end loaders</td>
<td>1.26</td>
<td>1.26</td>
</tr>
</tbody>
</table>

**Other Expense**

- **(a)**: VOCP: 5% on Capital Costs
- **(b)**: TAMP: 5% on Capital Costs

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Expense</td>
<td>97.76</td>
<td>97.76</td>
</tr>
</tbody>
</table>

**TOTAL OPERATING COST**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL OPERATING COST</td>
<td>1,033.73</td>
<td>1,015.60</td>
</tr>
</tbody>
</table>

### IV ANNUAL REVENUE REQUIREMENT

- **(a)**: Total Operating Cost: 1,033.73
- **(b)**: Return on Capital Employed @16%: 312.82
- **(c)**: Total Revenue requirement: 1,346.55

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNUAL REVENUE REQUIREMENT</td>
<td>1,033.73</td>
<td>1,015.60</td>
</tr>
<tr>
<td>(a) Total Operating Cost</td>
<td>312.82</td>
<td>312.81</td>
</tr>
<tr>
<td>(b) Return on Capital Employed @16%</td>
<td>1,346.55</td>
<td>1,328.41</td>
</tr>
</tbody>
</table>

### V PER TONNE HANDLING RATE

- **Annual Revenue Requirement (Rs. In Lakhs)**: 1,346.55
- **Optimal Capacity (in Metric Tonnes)**: 3,679,200

<table>
<thead>
<tr>
<th>Particulars</th>
<th>VOCP</th>
<th>TAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER TONNE HANDLING RATE</td>
<td>1,346.55</td>
<td>1,328.41</td>
</tr>
<tr>
<td>Annual Revenue Requirement (Rs. In Lakhs)</td>
<td>3,679,200</td>
<td>3,672,754</td>
</tr>
<tr>
<td>Handling Rate per tonne</td>
<td>36.60</td>
<td>36.17</td>
</tr>
<tr>
<td>- Foreign</td>
<td>21.96</td>
<td>21.70</td>
</tr>
</tbody>
</table>
REFERENCE TARIFF SCHEDULE FOR MECHANIZATION OF LOADING SYSTEM AT THE EXISTING COAL YARD SYSTEM ON LICENSE BASIS.

SCALE OF RATES

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 Terminal or place in India having a valid coastal license issued by the Director General of Shipping/ Competent Authority.

(ii) “Foreign-going Vessel” shall mean any vessel other than a coastal vessel.

(iii) “Port” shall mean V.O.Chidambaranar Port Trust.

(iv) “Shift” Shall mean shift of eight hours as applicable to Port employees

(v) “Per day” shall mean a calendar day or part thereof

(vi) “TAMP” shall mean the Tariff Authority for Major Ports constituted under Section 47A of the Major Trusts Act, 1963.

(vii) “Tonne” shall means one Metric Tonne or 1000 Kilograms or one cubic meter

1.2. General Terms & Conditions

(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 (prescribed at 2% above the Prime Lending Rate of State Bank of India)
(b) Likewise, the Terminal shall pay penal interest on delayed refunds. The rate of interest will be (prescribed at 2% above the Prime Lending Rate of State Bank of India)
(c) The delay in refunds 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. (The Terminal must specify specific documents to be submitted for claiming refund).
(d) The delay in payments by the users will be counted beyond 10 days after the date of raising the bills by the Terminal. 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 ₹ 100/- or more. Likewise, the license shall not raise any supplementary or under charge bills, if the amount due to Concessionaire is ₹ 100/- or less.

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

(b) The license may also, if it so desires, rationalize 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 license 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.

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

2. **Cargo Handling Charges for Mechanized Wagon loading system at coal stack yard:**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Rate per in MT (in Indian Rupees)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign</td>
</tr>
<tr>
<td>1. Coal, Coke and Limestone</td>
<td>36.17</td>
</tr>
</tbody>
</table>

**Note:**

(i). The Tariff is for transportation of cargo from coal yard to wagon/ truck through conveyor system.

(ii). Thermal coal will not come under Coastal Cargo category.

3. **GENERAL NOTES:**

(i). 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 2015 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.

(ii). From the date of Commercial Operation (CoD) till 31st March of the same financial year, the tariff would be limited to the indexed Reference Tariff relevant to that year, which would be the ceiling. The aforesaid Reference Tariff shall be automatically revised every year based on an indexation as provided in para 2.2 of the tariff guidelines of 2013 which will be applicable for the entire licence period.
However, the Licensor would be free to propose a tariff along with Performance Standards (the “Performance Linked Tariff”) from the second year of operation onwards, over and above the indexed Reference Tariff for the relevant financial year, at least 90 days before the 1st April of the ensuing financial year. Such Performance Linked Tariff shall not be higher than 15% over and above the indexed Reference Tariff for that relevant financial year (and this will be the Tariff Cap). The Performance Linked Tariff would come into force from the first day of the following financial year and would be applicable for the entire financial year.

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

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

(v). In the event of Licensee not achieving the Performance Standards as incorporated in the Licence Agreement in previous 12 months, TAMP will not consider the proposal for notifying the Performance Linked Tariff for the ensuing financial year and the Licensee shall be entitled to only the indexed Reference Tariff applicable for the ensuing financial year.

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

(vii). While considering the proposal for Performance Linked Tariff, TAMP will look into the Performance Standards and its adherence by the Licensee. TAMP will decide on the acceptance or rejection of the Performance Linked Tariff proposal based on the achievement or otherwise of the Performance Standards by the Licensee. Determination of indexed Reference Tariff and Performance Linked Tariff will follow the illustration shown in the Appendix attached to the tariff guidelines of 2013.

(viii). From the third year of operation, the Performance Linked Tariff proposal from the Licensee shall be automatically notified by TAMP subject to the achievement of Performance Standards in the previous 12 months period as certified by the Independent Engineer. The Licensee, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and TAMP shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.
The licensee shall meet both the following Performance Standards:

(i). The Minimum guaranteed availability of 90% of the Mechanised Loading System per month. The availability shall be calculated for the total mechanized system, and,

(ii). The Licensee shall complete the loading of half a rake consisting of 30 wagons of each 66 tonnes carrying capacity in fifty minutes.
SUMMARY OF THE ARGUMENTS MADE IN THIS CASE DURING THE JOINT HEARING BEFORE THE AUTHORITY.

| TAMP/9/2015-VOCPT | Proposal received from the V.O. Chidambaranar Port Trust for fixation of Reference tariff for mechanization of loading system at the existing coal yard system on license basis for 10 years period on revenue share basis |

A joint hearing on the case in reference was held on 20 February 2015 at the VOCPT premises. The VOCPT made a brief power point presentation of its proposal. At the joint hearing, the VOCPT and the concerned users/organization bodies and Prospective bidders have made the following submissions:

**V.O. Chidambaranar Port Trust (VOCPT)**

(i). Presently, coal is moved by trucks from the coal yard to VOC wharf behind the Transit shed for loading cargo onto wagons placed on the Railway line. This consumes lot of time and generates lot of pollution near VOC wharf. If loading of cargo onto wagons goes beyond 8 hours, then ports users have to pay demurrage charges for the extended period.

(ii). In order to reduce the loading time of cargo onto wagons and to reduce the dust pollution we have chalked out this project.

(iii). In this project, we have apron conveyor system with silo conveyor to transfer cargo into the silo. This will reduce dust pollution. It will also reduce the time for loading cargo into railway wagon which will improve cargo turn over.

(iv). Capital cost of ₹22.75 crores as estimated in the Feasibility Report is considered.

(v). Traffic forecast in inner harbor is 6.64 MTPA. It is assumed that 50% of the forecasted traffic will pass through railway wagons and 50% will pass through trucks. Hence, the optimal capacity of 3.32 MTPA is considered for reference tariff fixation.

**Tuticorin Stevedores Association (TSA)**

(i). Project is good. But, it has to be in synchronization with the Railway's project. The optimal capacity of 3.32 MTPA is high.

[VOCPT: We want to increase rail evacuation to reduce the pollution. We expect cargo movement through wagon to increase. Feasibility Study is already undertaken for doubling of the railway lines. Cargo meant for stock and sale will move by road which is excluded from the overall capacity while arriving at the proposed tariff.]

(ii). 10 years license period is too short.

[VOCPT: We will examine this project.]

****