(Published in Part - III Section 4 of the Gazette of India, Extraordinary)

Tariff Authority for Major Ports

G No. 29 New Delhi, 19 January 2010

NOTIFICATION

In exercise of the powers conferred by Sections 48, 49 and 50 of the Major Port Trusts Act, 1963 (38 of 1963), the Tariff Authority for Major Ports hereby disposes of the proposal received from the New Mangalore Port Trust for setting upfront tariff for container handling in pursuance of the guidelines for upfront tariff setting for Public Private Participation (PPP) projects at Major Ports vide this Authority's Notification No.TAMP/52/2007-Misc. dated 26 February 2008 as in the Order appended hereto.

(Rani Jadhav)
Chairperson

Tariff Authority for Major Ports
Case No. TAMP/33/2009-NMPT

New Mangalore Port Trust - - - - - **Applicant**

O R D E R
(Passed on this 30th day of December 2009)

This case relates to a proposal dated 9 September 2009 received from the New Mangalore Port Trust (NMPT) for setting of upfront tariff for the container terminal to be developed on Build-Operate-Transfer (BOT) basis at the New Mangalore Port.

2. 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.

3.1. In pursuance of the guidelines for upfront tariff setting, the NMPT has filed a proposal for the fixing upfront tariff for the container terminal to be developed on BOT basis. The scope of work for development of the proposed container terminal includes design, engineering, finance, construction, operation & maintenance and marketing and provision of project facilities and services by the selected operator on Build, Operate and Transfer (BOT) basis. The port will, however, be responsible for maintenance dredging of basin and channel every year to maintain the required depth, providing navigational aids, tugs and floating crafts.

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

(i). The container terminal is designed to have quay length of 300 meters and width of 25 mtrs.

(ii). Panamax container ships capable of carrying 2500 plus TEUs are expected to be handled at the container terminal.

(iii). Storage and backup area: A total area of 10.6 hectares adjacent to the quay is proposed to be provided by the port. Out of 10.6 hectares, the container stack yard is proposed to be developed in an area of 60,000 sq. mtrs., 26000 sq. metres for road, back up area of berth, berth, etc., and 20,000 sq. mtrs. towards parking lot for waiting trailers. The stack yard shall be designed to contain 2160 numbers of ground slots.

(iv). Optimal Capacity:

(a). Optimum quay capacity: The annual optimum quay capacity is determined at 398,580 TEUs per annum by considering the parameters as tabulated hereunder:

Sr. No.	Parameters	Norms	Values considered by NMPT
A.	Number of Gantry Cranes deployed for work in a year	Berth Length (in mt) / 100 (as per norms it should be 3 nos. for 300 mtrs. berth length)	2
B.	Number of Working Hours of Gantry Cranes in a year	24 x 365 = 8760	8760
C.	Average Number of moves per gantry Cranes (moves/hour)	25	25
D.	TEU Ratio	1.3	1.3
E.	Optimal Capacity ratio	70%	70%

As per the norms prescribed in the guidelines 3 quay cranes are required for the proposed quay length of 300 mtrs. The NMPT has, however, considered 2 cranes.

The NMPT has clarified that due to constraint in storage yard and the limitation of yard capacity, it proposes only 2 quay cranes instead of requirement of 3 cranes as per the guidelines. The capacity of the berth is proposed to be kept with the minimum requirements in order to minimize the capital cost of the project, to optimize the productivity and minimize rate per TEU to be handled at the New Mangalore Port in comparison with other neighboring ports.

(b). Optimum stack yard capacity:

The optimum stack yard capacity is assessed at 3,53,770 TEUs per annum adopting the following values:

Sr. No.	Parameters	Norms in guidelines	Values considered by NMPT
G	Total Ground Slots in TEU	720 TEUs/Ha	360 TEUs/Ha *
H	Average Stack Height	2.5	2.5
P	Period in Number of Days	365 days	365 days
S	Surge factor	1.3	1.3
D	Average Dwell Time	4 Days - Export, 2 Days - Imports	3 days **

* The prescribed norms of 720 TEUs per hectare in a stacking area is not feasible. As such a realistic approach was adopted by JNPT while filing its proposal for upfront tariff fixation i.e. 35 sqm per TEU for a ground slot, which results into 285 ground slots per hectare (TAMP vide tariff Order No.TAMP/40/2008-JNPT dated 25 February 2009) has accepted the approach of the JNPT.

The NMPT has considered number of ground slots at 360 TEUs per hectare. Accordingly, the total number of ground slots for area of 60,000 sq. mtrs. works out to 2160 TEUs.

** The dwell time is considered on average basis at 3 days. Since the area requirement for container handling is limited, port would not like to increase the average dwell time beyond 3 days. (The import and export container assumed by NMPT is 60:40)

(c). Accordingly, the optimum capacity of container terminal is assessed at 3,53,770 TEUs per annum being lower of the quay and stack yard capacities.

(v). The total capital cost for the container terminal is estimated at Rs.275.82 crores. The break up of the capital cost is furnished below:

(**Rs. in crores**)

<table>
<tr><th>Sl. No.</th><th>Group</th><th colspan="2">Norms</th><th colspan="2">Estimation furnished by NMPT</th></tr>
<tr><td>A.</td><td colspan="5">For Container handling facilities:</td></tr>
<tr><td>1.</td><td>Civil Construction cost</td><td colspan="2">As per the estimates given by the Port Trust for construction of civil works for achieving maximum capacity.</td><td colspan="2">27.24</td></tr>
<tr><td rowspan="3">2.</td><td rowspan="3">Container Handling equipment</td><td>Equipment</td><td>Norms</td><td>No. of equipment considered by NMPT</td><td>Rs. in crores</td></tr>
<tr><td>Quay gantry crane</td><td>One for 100 m of berth length (i.e. 3 nos. in case of NMPT)</td><td>2 Nos.</td><td>68.05</td></tr>
<tr><td>Rail mounted gantry crane</td><td>One for handling 6 Rakes/day</td><td colspan="2">Not estimated as it does not envisage ICD traffic</td></tr>
</table>

		Rubber Tyred Gantry crane	Three for each quay gantry crane (i.e. 9 nos.)	6 Nos.	51.90
		Reach stacker	One for nine RTGs (i.e. 1 no.)	1 No.	2.52
		Tractor Trailer	Six for each Quay gantry crane (i.e. 18 nos.)	12 Nos.	3.00
		Container Handling Equipment cost			**125.48**
3.	IT System cost	2% of the sum total of the civil construction cost and container handling equipment cost.		Estimated as per norms	3.05
4.	Other Cost including Financing cost and Interest during construction.	10% of the sum total of the civil construction and container handling equipment cost.		Calculated as per norms	15.27
	Subtotal (A)				**171.04**
B.	**For Berth hire:**	No norms prescribed in the guidelines for container terminal.			
1.	Berth Cost			Estimates furnished by NMPT	83.00
2.	Cost of Dredging in front of berth				12.25
3.	Other cost and Contingencies 10% of (1 + 2)				9.52
	Subtotal (B)				**104.77**
C.	**Total Capital Cost (A + B)**				**275.82**

(a). The civil costs have been arrived at based on past experience with similar projects and basic rates as gathered from site prevailing in August 2009. The NMPT has furnished detailed breakup of civil cost estimation.

(b). Cost of equipment is considered as per quotations received from suppliers around August 2009. It is assumed that developer will avail 'Export Promotion for Capital Goods' (EPCG) and as such duty on imported equipment is considered as 3%. It has furnished detailed computation of equipment cost estimation.

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

(vii). (a). Operating cost for cargo handling service is estimated following the norms prescribed in the guidelines.

(b). Power cost is estimated adopting the unit rate of power at Rs.8 based on the electricity bill considered by the Authority in the upfront tariff fixation of iron ore terminal at the NMPT in October 2008. Consumption norm of power is considered as per the norms prescribed in guidelines.

(c). The prevailing rate of license fee in NMPT is stated to be Rs.9.37 per sq. mtr. per month. Accordingly, license fee for 10.6 hectares of land is estimated at Rs.1.19 crores per annum.

(d). Other Expenses has been calculated in line with the guidelines at 15% of the sum of the capital cost of the civil works and the container handling equipment for the terminal which has capacity less than 0.50 Million TEUs.

(viii). Annual operating cost for the container handling activity is estimated at Rs.54.86 crores. Operating cost for berth hire services is assessed at Rs.10.09 crores which includes 1% of the total berth cost as maintenance charge, depreciation at the applicable rate, insurance at 1% of berth cost and miscellaneous cost at 5% of total capital cost for the berth hire service.

(ix). Annual revenue requirement is estimated at as below:

(**Rs. in crores**)

Sr. No.	Particulars	Container handling service	Berth hire service
1.	Total annual operating cost	54.86	10.09
2.	Return on capital employed	27.37	16.76
ANNUAL REVENUE REQUIREMENT		**82.23**	**26.85**

(x). The estimated Annual Revenue Requirement (ARR) from the container handling services is apportioned to the following main tariff items following the norms prescribed in the guidelines:

(**Rs. in crores**)

Tariff group	% of revenue allocated	Annual revenue requirement (Rupee)
Container handling charges	90%	74.00
Ground rent charges	7%	5.76
Miscellaneous charges	3%	2.47
Total	**100%**	**82.23**

(xi). (a). The NMPT has submitted that as on date it does not have statistics for container handling to arrive at any percentage of coastal and foreign containers, 20/40' containers, reefer containers, etc. There is no established CFS in its vicinity as well. In view of that, the assumptions made by the Jawaharlal Nehru Port Trust (JNPT) in its proposal for fixation of upfront tariff for container handling, which is decided by the Authority in its Order dated 25 February 2009, is considered as the base by the NMPT for arriving at the individual tariff items to meet the estimated revenue requirement from container handling service.

(b). The following major container handling activities have been considered in the analysis;

(i). Movement of container from Ship deck to container yard and vice versa.

(ii). After the container comes to the container yard, it may undertake any of the following 2 routes.

- From container yard to CFS (Container Freight Station) and vice versa.

- From container yard to Trailers for direct movement to factory and vice versa.

The assumptions made by JNPT regarding the difference between movement from container yard to CFS (vice versa) and container yard to direct factory (vice versa) are not significant. This is based on the operator's view point. Hence pricing for these two activities are kept at same level.

(c). The assumptions with respect to mode of movement in sea, the mode of movement in land, types of cargo (reefer or non reefer, hazardous or non hazardous etc.) the size of container (TEU, FEU, over dimensional etc.) are same as assumed by JNPT, however the percentages have been rounded to integers to arrive at realistic percentage.

(d). The foreign and coastal have been assumed at 96% and 4% of total assessed capacity respectively. Empty container volume has been assumed at the level of 15% of total container capacity across export / import category.

(e). The conversion factor of number of TEUs to number of containers has been assumed at 1.30. In other words, number of containers is 74.5% of number of TEUs.

(f). Break up of container traffic assumed in line with present trend in Major Port especially at Container Terminal at JNPT is given below:

Container segment	% break up
Normal TEUs (including Reefer and Rest and not belonging to any of categories below)	80.0%
Hazardous TEUs	2.0%
Over dimensional TEUs	3.0%
Transhipment TEUs	15.0%
Total TEUs	**100.0%**

(g). Mode of arrival / evacuation of container has been made as follows (while arriving at the proposed tariff to meet the estimated revenue requirement:

Mode of Conveyance			
	Import	**Export**	**% (weighted average)**
CFS	65.0%	35.0%	53.0%
Factory	35.0%	65.0%	47.0%
Total	100.0%	100.0%	100.0%

(h). Based on above assumptions, a flexible revenue model has been designed to enable the terminal operator to collect Rs.82.23 crores through container handling charges alone.

(xii). The port has proposed the tariff for container handling charges for various categories / size of container in the draft proposed Scale of Rates. The upfront tariff proposed for handling loaded foreign container of 20' is as below:

(a). Ship to yard and vice versa – Rs.1990

(b). Yard to Truck and vice versa – Rs.299

(xiii). (a). In estimation of yard capacity, average dwell time for an import container and export container has been assumed to be 2 and 4 days respectively. It translates to 3 days average dwell time assuming approximately equal volumes of import and export.

For all the containers coming from / going to CFS / direct factory location, it is desirable to provide only 2 days as free days for imports and 3 days as free days for exports. This is to ensure that desirable recovery can be made from the dwelling charges for all import / export volume pertaining to 1 day's collections from both imports and exports.

(b). 100% of import / export container volume shall go through / come from CFS / direct factory.

(c). The storage charge is arrived at Rs.163 per day for a 20" container and Rs.326 per day for a container more than 20" on the 3rd day. Such rate shall applicable till 15th day; after which the subsequent period pricing shall be twice the earlier period pricing; keeping up with the principle of Preventive pricing.

(d). In order to boost transhipment traffic, it is proposed to provide first 15 days as free days for a loaded transhipment container and first 7 days as free days for an empty transhipment container. Adopting a principle of Preventive pricing, the charges for a loaded and empty transhipment container after 15 and 7 days respectively shall be at a level twice that of the dwelling charges for a non transhipment container for the similar time period. It is not sought to earn significant returns through ground rent charges of transhipment container in order to contribute to terminal operator's income. Free period provided is sufficient for the movement of transhipment container out from the container yard. Hence, it is not taken into account in computation of recovery to be made by terminal operator through ground rent charges.

(xiv). Miscellaneous charges proposed to be recovered are through services for reefer monitoring and connection, shut out containers, additional services provided in the container yard for customs inspection or otherwise, hatch cover opening and replacing, storage of uncleared goods etc.

(xv). Berth hire charges:

The assumptions with respect to the trade share of the vessels expected and the parcel size handled for carrying out the GRT projections for a normal operating year of the terminal are as follows:

LOA (metres)	Trade Share (%)	No. of Ships	Avg GRT	Avg Parcel Size
0 - 140	5%	9	8040	434.00
140 - 180	10%	17	15200	631.00
180 - 220	30%	51	28000	1432.00
220 - 260	40%	68	36000	2500.00
260 - 300	10%	17	48000	3500.00
300+	5%	9	72000	4000.00

The berth hire charges (upfront) proposed by the port for foreign vessel is Re.0.99 per GRT per hour and for coastal vessel at Re.0.59 per GRT per hour. It has furnished detailed calculation in line with the approach followed in the upfront tariff fixation of container terminal at JNPT in support of the rate proposed.

3.3. The NMPT has stated that the upfront tariff shall apply to all container terminals to be developed by the port on PPP basis within the next five years.

4. In accordance with the consultation process prescribed, the proposal dated 9 September 2009 received from the NMPT was circulated to the concerned users / organisation bodies and prospective applicants (as per the list provided by the NMPT) seeking their comments. The Kanara Chamber of Commerce and Industry (KCCI) vide letter dated 20 October 2009 had requested to grant extension of 15 days for furnishing their comments which was granted. We have, however, not received any comments from KCCI. We have not received any comments from other users / user organisations / prospective applicants despite a reminder except Grup Marítim TCB, S.L. The comments received from Grup Marítim TCB, S.L. were forwarded to NMPT as feedback information. The NMPT has furnished its comments on the points made by Grup Marítim TCB, S.L.

5. Based on a preliminary scrutiny of the proposal, the NMPT was requested to furnish additional information / clarifications vide our letter dated 2 December 2009. The NMPT has furnished its response which is given in the subsequent paragraphs.

6.1. A joint hearing in this case was held on 17 December 2009 at the NMPT premises. The NMPT made a power point presentation of its proposal. At the joint hearing, NMPT and the concerned users / organisation bodies and prospective applicants have made their submissions.

6.2. At the joint hearing, the request made by the Association of New Mangalore Port Stevedores (ANMPS) for three days time to furnish its written comments supplementing its oral submissions was allowed. We have not received any written comments from ANMPS despite a reminder.

7.1. As decided at the joint hearing, the NMPT has furnished its reply to our queries raised vide its letter dated 22 December 2009. A summary of the queries raised by us and the clarifications furnished by the NMPT are tabulated below:

Sl. No.	Queries raised by us	Reply received from NMPT
(i).	(a). The NMPT has proposed to deploy only two quay cranes instead of three quay cranes required as per the norms prescribed in the guidelines. The other equipments proposed to be deployed are based on the norms prescribed in the guidelines but with reference to two quay cranes. The upfront tariff guidelines do not prescribe any norm	The NMPT has proposed to deploy 2 cranes as per the requirement of matching facilities to the yard capacity. The norms for ground slots at 720 TEU's per hectare is not feasible. It is also clarified that the necessary equipment to handle and match the yard capacity is a critical aspect in designing the container terminal as such the

	nor does it place any restriction on the port on the area to be allotted for storage purpose. The expectation is to consider area required to handle the anticipated capacity of traffic. It is also necessary to bear in mind that upfront tariff once set will ordinarily operate in respect of a particular terminal for a period of 30 years.	quay capacity has been matched to yard capacity. The subject proposal with 2 Quay cranes is submitted to the PPPAC for appraisal of the project with approval of the Ministry. The additional area if any considered in the vicinity will conflict with the future planning of the adjacent berths. Therefore, there is a constraint to add more area to the yard capacity. However, in order to match the facility as per quay capacity an additional area of 3,500 sq. mtrs. is considered out of the facility to be created as common user facility in the railway siding near to the yard. The total area to be provided will remain the same i.e. 86,000 sq. mtrs.
	(b). In few instances where the norms prescribed in the guidelines have been relaxed by the Authority have consequently lead to improvement in the capacity or productivity; the norms prescribed have not been otherwise scaled down by the Authority.	At present the container traffic at New Mangalore Port is at low volume. It requires a steady progress of cargo built up and to attract more containers it would take considerable time. The number of equipments and yard capacity have been considered based on the minimum requirement as per the guideline. The norms in this case have been followed and the deviation in respect of the no. of ground slots i.e. 360 nos. instead of 720 nos. is considered, which is also matching to the ground slot planned for the proposed yard. This deviation was also allowed in case of JNPT proposal. The matching capacity of yard to quay is already clarified in above para.
	(c). The NMPT may consider to reassess the optimal quay capacity following the norms prescribed in the guidelines. The optimal yard capacity may also re-assessed so as to match the (revised) optimal quay capacity. Corresponding modification may also be done in the estimation of capital cost, operating cost, etc., and upfront tariff calculation earlier furnished by the port.	The NMPT proposal of the minimum yard capacity is optimal and equipments have been matched to the yard capacity for the optimal quay capacity. The NMPT envisages no reasons to revise the proposal since the deviations in yard capacity are justified as the provision in guideline for 720 TEUs ground slots per Ha is unfeasible. The proposed development in Western Dock Arm (WDA) consist of 4 berths with allocation of area for each of the berth for development of backup facility. The 4 berths have fixed quay length in the order of 275 m to 300 m as such the back up is proposed. The additional area if any considered in the vicinity will conflict with the future planning of the adjacent berths. Therefore, there is a constraint to add more area to the yard capacity. However, in order to match the quay capacity an area of 3,500 sq. mtrs. is considered additionally for the container project from the common facility area in the proposed westernside of the WDA.
(ii).	(a). Furnish the analysis done by the port to arrive at ground slots of 360 TEUs per hectare in the calculation of optimal yard capacity.	The JNPT has considered 35 sq. mtrs. of area per TEU as one container will require 160 sq ft which works out an area of 14.86 sq. mtrs. and balance area for the ease of operations etc. The port has considered an area of 27.73 sq. mtrs. per TEU assuming 360 TEU per Ha, since one container would require (5.90 m x 2.35 m) = 13.87 sq. mtrs. and 100% additional area for facilitating the

		movement cranes and trailers and space between the containers in longitudinal and transverse direction etc. This assumptions match with requirement of the site conditions The drawing showing the number of ground slots of about 2160 is furnished.
	(b). The basis of considering the ratio of import and export container at 60:40 and foreign and coastal at 96 : 4 may be explained.	The import export profile of the containers at present is 51.3:48.7 and foreign and coastal at 94.7:5.3 the profile may change once the full fledged container terminal with a modern equipments and connectivity to other Ports vis-à-vis with hinterland connectivity would change. As such it has been assumed that the composition of import export containers would be 60:40 and foreign and coastal at 96:4. The statistical data of the present scenario is furnished. (In the storage revenue estimation, the NMPT has assumed import / export ratio at 50% each.)
(iii).	Furnish rate analysis in support of the unit rates considered for estimating each components of civil cost along with budgetary quotation wherever obtained. Also, confirm that the unit rate adopted for estimating both civil cost are based on the prevailing market rate.	The rate analysis in support of unit cost is furnished. It is confirmed that the unit rate adopted for estimate in civil cost are based on prevailing market rate.
(iv).	The estimation of civil cost for berth hire services include other cost at 10% of the berth cost and capital dredging cost as a provision for financing cost and Interest During Construction (IDC). A norm for estimating other cost including financing cost and IDC at 10% of civil cost and equipment cost is stipulated in the guidelines for estimation of capital cost for container handling service. Though there are no separate norms prescribed in the guidelines for berth hire service for a container terminal, the guidelines prescribed for other cargo terminals such as iron ore, coal, liquid bulk, etc., set of guidelines for upfront tariff fixation of berth hire service wherein capital cost comprise of cost of construction of berth and cost of dredging, if any, carried alongside berth. There is no provision for estimation of other cost in berthing service. The upfront tariff set for container terminal at Jawaharlal Nehru Port Trust (JNPT) and upfront tariff set for other cargo handling terminals at other Major Port Trusts such as Mormugao Port Trust, Visakhapatnam Port Trust, etc., also do not reckon with the element of other cost under berth hire service. The extraordinary circumstances for considering this item in the case of NMPT may be brought out and the estimates may be justified.	The civil cost estimation for berth hire includes 10% other cost as a provision towards other cost and financing cost etc. It may be noted that there are no norms prescribed in the guidelines for the same. However, for financial appraisal of any project, the cost toward financing cost irrespective of the purpose for which it is provided will attract some financing provisions in the estimation. The norms prescribed for other berths for bulk handling and POL may not be linked to the container handling since there is also difference in the rate of percentage considered for financial cost and other cost. As such the calculation provided by NMPT is on the basis of financial appraisal and the IDC cost is required to be considered. It may be noted that the IDC generally works out nearly 7% - 8% of the project cost and it is justified to reckon 10% of civil works in berth construction towards other cost and finance cost.
(v).	The unit rate of power in the upfront tariff setting of iron ore handling terminal at NMPT (as referred by the port in the instant proposal) was considered at Rs.7.79 based on the copy of the electricity bill produced by the port for the month of July 2008 and August 2008. A copy of the recent bill of Mangalore Electricity Supply Company Limited (MESCL) may be furnished to	Copy of the electricity bill pertaining to the month of November 2009 is furnished. The total cost of power is Rs.32.21 lakhs and net consumptions is 401736 units. The unit rate of power works out Rs.8.01.

	substantiate the unit rate of Rs.8 adopted by the port in the upfront tariff calculation.	
(vi).	Instead of separately depreciating the 'other cost' at 10.34% it should be apportioned to the civil cost and equipment cost and the depreciation at the applicable rate for civil and equipment should be calculated.	The depreciation for the civil work in yard construction is revised to applicable rate @ 3.34%. The necessary corrections have been made in the revised cost sheet.
(vii).	(a). The NMPT in para 9.1. (Annex B page 54) has stated that the container mix is presumed at the level considered by the Jawaharlal Nehru Port Trust (JNPT) with some rounding off. Some variation is, however, noted in the container mix assumed by the JNPT vis-à-vis that considered by the NMPT. Please explain the reasons for such variation.	The composition of the cargo mix assumed in the NMPT calculations is furnished. The cargo mix adopted for the NMPT is slightly modified as some of the operations are not relevant to the subject proposal such as ICD and CFS. The cargo mix as per the requirement of the proposal have been incorporated There are slight variations in the calculations than assumed by NMPT and the same has been corrected.
	(b). Justify how the container mix considered in upfront tariff setting of container terminal at JNPT are relevant for the container terminal facility at NMPT. It has to be recognised that, the container mix as well as the ratio of 20/ 40, laden / empty container assumed in the calculation has an impact on the unit tariff as well as the estimation of revenue. The port may again review the container mix adopted in the upfront tariff calculation for arriving at the unit rate and confirm that they are closer to the (realistic) container mix likely to be handled at the port of New Mangalore.	The container handled at present in NMPT is 23000 nos. containers (i.e. to 28000 TEU) and the cargo mix do not represent the cargo handled by the Major Indian container terminals as such the consideration has been made to assume the traffic pattern, cargo mix and the statistics of the other major container handling Port like Jawaharlal Nehru Port Trust, Tuticorin Port Trust & Chennai Port Trust. The cargo mix adopted for the NMPT is slightly modified as some of the operations are not relevant to the subject proposal such as ICD and CFS. The cargo mix as per the requirement of the proposal have been incorporated. The cargo mix in respect of laden & empty and import and export is considered as per the TPT's container terminal. It is expected that there is scope for transhipment of container due to proximity to the international navigational route, 15% is considered towards the same.
	(c). In the calculation sheet furnished showing the estimated revenue at the proposed tariff, the sum of boxes with reference to normal and refeer container considered for estimating the revenue is 233488. Considering the ratio of 20 and 40 feet container adopted by the NMPT in the calculation is 65 : 35, the conversion factor of TEUs into boxes will be 1.35. Accordingly, the number of boxes works out to 209641 as against 233488 considered by the NMPT for estimating the revenue. Similar inconsistency is observed for other categories of containers also. The NMPT is advised to examine the revenue calculation sheet and modify the inconsistency observed.	Necessary corrections have been made as per the assumption to factor the conversion rate of TEUs into boxes at 1.3. The modification and subsequent changes in the calculations sheet is furnished.
	(d). The surge factor considered for estimation of yard capacity is 1.3 as per the norms prescribed in the guidelines. In the estimation of revenue, the optimal capacity of the terminal is distributed to different types / size of container wherein as observed in (d) above, conversion of TEUs into boxes is 1.35. Explain the reasons for such variation in the application of conversion factor.	

<table>
<tr><td>(viii).</td><td>With reference to the miscellaneous charges proposed by the NMPT in schedule 3.3. of the proposed Scale of Rates, detailed calculation may be furnished to show that the revenue at the proposed tariff for miscellaneous services proposed to be offered will match the estimated revenue requirement of Rs.246.68 lakhs.</td><td>The miscellaneous charges covers various operations such as providing electrical points to the refeer containers, removal of hatch covers, shifting of the containers for examination by Custom Authority, etc. The detail of the such charges and basis adopted with reasons is furnished.</td></tr>
<tr><td>(ix).</td><td>The port assumes that the container from the Container Yard may either move to CFS or will be loaded on truck for direct delivery to factory. Justify the reasons for nor proposing differential tariff for container directly moved to factory through truck and movement of container to CFS with reference to the services envisaged to be provided by the Terminal Operator in both the above mentioned movements of containers.</td><td>The containers will be shifted from the vessels and will have to be stored in the yard and it has been assumed that there will not be any direct delivery to the user from the lorries.</td></tr>
<tr><td rowspan="4">(x).</td><td><u>Calculation for the berth hire charge</u>:</td><td></td></tr>
<tr><td>(a). Confirm that the average parcel size and average GRT of the vessels assumed in the calculation of upfront berth hire reportedly based on the model followed in the upfront tariff fixation of JNPT are relevant for container terminal envisaged at New Mangalore Port.</td><td>At present port does not have any statistics of container vessels and it to the feeder vessels. Therefore, the Port has adopted the model adopted by JNPT of vessel calling at the Port. Since JNPT caters to all types of vessels and the new terminals which are developed in the recent past have experienced the mix of vessels which are considered as most appropriate for a stand alone terminal such as New Mangalore Port.</td></tr>
<tr><td>(b). The basis of the share of different size of vessel considered for arriving at the proposed upfront tariff cap for berth hire service may be explained.</td><td>It is expected that due to advantage of the dredged depth of 15.1 meter and the cargo volume the majority of the vessels will be of the following parcel sizes;

<table>
<tr><th>Vessel LoA</th><th>Percentage</th><th>Parcel Size</th><th>No. of Ships</th></tr>
<tr><td>0 - 140</td><td>5%</td><td>434.00</td><td>9</td></tr>
<tr><td>140 - 180</td><td>10%</td><td>631.00</td><td>18</td></tr>
<tr><td>180 - 220</td><td>30%</td><td>1432.00</td><td>54</td></tr>
<tr><td>220 - 260</td><td>40%</td><td>2500.00</td><td>72</td></tr>
<tr><td>260 - 300</td><td>10%</td><td>3500.00</td><td>18</td></tr>
<tr><td>300+</td><td>5%</td><td>4000.00</td><td>9</td></tr>
</table>

It is expected that the vessels assumed in the range of 180 - 260 meters will have 70% calls as these vessels carry around 2000 Nos. of containers on an average. This will match with the expected traffic at the Port.</td></tr>
<tr><td>(c). The basis of assuming penal berth hire charge in addition to berth hire charge for stay beyond 2 hour may be explained. Also, explain whether any additional income therefrom is recognised in the estimated revenue.</td><td>The penal berth hire charges beyond 2 hours are required in order to utilize the berth at prescribed occupancy of 70% as per the guidelines. This will discourage the shippers to delay of stay put at berth. The provision is only a penalty for discouraging the vessel owners to stay beyond 2 hours.</td></tr>
<tr><td>(xi).</td><td>(a). The port has assumed the entire optimal capacity will attract storage charge while arriving at the storage rate of Rs.164 per TEU per day. The basis of such assumption may be explained. The base rate of storage charge arrived for the first slab may also be explained with reference to the average dwell time of 2 days assumed for import containers and 4 days assumed for export containers and the free period of 2 days for</td><td>Detailed calculation showing the revenue from storage charge (proposed) for dwell time assumed for each of the slabs for various categories of containers is furnished so as to meet the estimated revenue requirement.</td></tr>
</table>

	import and 3 days for import proposed in the Scale of Rates.	
	(b). Furnish a detailed calculation to show that the revenue at the storage charge proposed in the Scale of Rates for different categories of containers would match the Annual Revenue Requirement of Rs.575.59 lakhs estimated from the storage service. The percentage of traffic likely to fall in each time slots for each category of containers assumed in the calculation may be indicated explaining the basis for such assumption.	
	(c). While arriving at the proposed storage charge of Rs.164 per TEU / day for the first slab the port has divided the estimated revenue requirement from this service by the optimal capacity of terminal. Revenue is also dependent upon the number of days the cargo is likely to remain uncleared. The time factor is not considered by the port.	

7.2. To summarise, the main modifications done by the NMPT in the revised proposal are explained hereunder:

(i). The port has proposed to allot 3500 sq. mtrs. of additional area for container stackyard. Consequently, the optimal yard capacity assessed at 353770 TEUs per annum in the initial proposal is increased to 374406 TEUs in the revised proposal.

(ii). The estimation of license fees is modified considering the existing unit rate prevailing for paved area and unpaved area for the relevant area of land proposed to be allotted by the port.

(iii). Depreciation on other assets is computed after apportioning it to civil and equipment cost. The revised revenue requirement estimated by the NMPT is as follows:

Sr. No.	**Particulars**	**Container handling service**	**Berth hire service**
1.	Total annual operating cost	55.37	10.09
2.	Return on capital employed	27.37	16.76
ANNUAL REVENUE REQUIREMENT		**82.74**	**26.85**

(iv). The cargo mix in respect of laden and empty containers and import and export containers is considered following the cargo mix reckoned for fixation of upfront tariff for TPT container terminal. The ratio of 20' and 40' container is considered as 70:30.

(v). In view of the above modification, the rates proposed by the NMPT in the original proposal are also modified. The revised upfront tariff for main tariff item i.e. handling 20' foreign container is given below:

	Laden	**Empty**
Ship to yard and vice versa	1855	1484
Yard to Truck and vice versa	278	282
TOTAL	**2133**	**1766**

(vi). The storage charge is revised and proposed at Rs.101 per day for the first slab for 20' container. The rates for the subsequent two slabs are proposed two times and three times the rates proposed for the first slab.

8.1. The NMPT has subsequently vide its email dated 23 December 2009 has furnished revised estimation of tariff after correcting the number of boxes at 288004 applying the conversion factor of TEUs into boxes at 1.3. The estimation of rates for storage charges is also accordingly modified. It has forwarded the revised draft schedule of rates incorporating the above correction.

8.2. The major modifications made by the NMPT in the revised proposed Scale of Rates is as follows:

(i). It has modified the unit rates for all the items to meet the estimated revenue requirement. The upfront tariff proposed for the main tariff item i.e. handling 20' foreign container is given below:

	Laden	Empty
Ship to yard and vice versa	1940	1552
Yard to Truck and vice versa	291	295
TOTAL	**2231**	**1847**

(ii). The 10 tier slabs proposed for levy of storage charge has been modified to 3 to 4 tier slabs. The storage charge earlier proposed for various categories of container which are not relevant in their case has been deleted from the revised proposed Scale of Rates. In the revised proposed Scale of Rates, the free period proposed for various categories of container is maintained as per the original proposal except for export empty container which is reduced from 3 days by clubbing it with import empty container.

The storage charge proposed in the revised proposed Scale of Rates is Rs.117 per day for the first slab for 20' foreign container. The rates for the subsequent two slabs are proposed two times and four times the rates proposed for the first slab.

9. The proceedings relating to consultation in this case are available on records at the office of this Authority. An excerpt of the comments received from 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.

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

(i). The proposal is for fixing upfront tariff for Container Terminal proposed to be developed under PPP mode at New Mangalore Port Trust (NMPT).

As per clause 2.2. of the guidelines for upfront tariff setting for PPP projects at Major Port Trusts of February 2008, the tariff caps prescribed now shall apply to all identical Container Handling Terminals to be developed at the port on PPP basis within the next five years.

(ii). Subsequent to the joint hearing, the NMPT has made some modifications in the original proposal, as explained in the earlier part of this note. The revised proposal filed by the NMPT dated 22 December 2009 and 23 December 2009 along with the information / clarifications furnished during the processing of the case is considered in this analysis.

(iii). The proposal filed by the NMPT generally complies with the guidelines issued for upfront tariff setting vide Notification No.TAMP/52/2007-Misc. dated 26 February 2008 except with reference to number of quay cranes as well as the complementary equipment proposed to be deployed for the Container Terminal and ground slots in the yard. Deviations from the guidelines proposed by the NMPT are, inter alia, discussed in the subsequent paragraphs.

(iv). The NMPT has proposed to deploy two quay cranes instead of the requirement of three quay cranes as per the norms prescribed in the guidelines. Since the upfront tariff guidelines do not prescribe any norm nor place any restriction on the port on the area to be allotted for storage purpose, the port was advised to reassess the optimal quay capacity following the norms prescribed in the guidelines and also reassess the optimal yard capacity so as to match the (revised) optimal quay capacity. The NMPT has clarified that 4 berths are proposed to be developed in western dock arm which also require backup area. Allotment of any additional area to the Container Terminal will conflict with the future planning of the adjacent berths. Therefore, the port has expressed constraint in allotting more area to improve the yard capacity of the Container Terminal. Without any modification in total area proposed to be allotted, the port has in the revised proposal considered 3500 sq. mtrs. of additional area for development of stackyard to improve the yard capacity. It is notable that the upfront tariff guidelines do not prescribe any norm or standard for the allotment of land by the port for stackyard development. But, this Authority cannot completely ignore the restrictions placed by physical feature of the Terminal.

(v). Optimal Terminal Capacity:

(a). Optimal Yard Capacity:

(i). Ground slots:

A total area of 10.6 hectares of land is proposed to be provided by the NMPT for Container terminal development. After providing area for roads, back up area of berth, operational building, 2 hectares of land for parking lot for trailers, etc., the port proposes to allot 6.35 hectares of area for container stackyard.

Stating that the ground slot norm of 720 TEUs per hectare prescribed in the guidelines is not feasible, the port has considered ground slots of 360 TEUs per hectare. The number of ground slots per hectare is reportedly arrived based on the area occupied by a container and additional area required for movement of container handling equipment, space between container, etc. It is relevant to state that norm of 720 TEUs per hectare prescribed in the guidelines were also modified in the case of JNPT and considered at 285 TEUs per hectare. Based on the analysis furnished, the position reported by NMPT is relied upon for assessing the optimal yard capacity.

Clause 3.2 of the guidelines of February 2008 permits this Authority to make necessary adjustments in the norms based on the justification furnished by the concerned port trust, keeping in view the port specific conditions.

(ii). Average Stack Height:

The upfront tariff guidelines specify average stack height of 2.5 which is complied with by the NMPT.

(iii). Average dwell time:

The upfront tariff guidelines specify average dwell time for export container at 4 days and for import container at 2 days which is considered by the NMPT.

In the revenue estimation furnished along with the revised proposal, the ratio of import and export container is considered at 50 : 50 and average dwell time of 3 days is reckoned with. The ratio of import / export container is found to be in line with the prevailing import export profile of the containers reported by the port at 51.3:48.7 and also with reference to the import / export mix at the neighbouring Container Terminal i.e. PSA SICAL Terminals Limited operating in Tuticorin Port Trust.

(iv). The yard capacity based on the formula prescribed in the guidelines and the parameters considered by the NMPT works out to 374406 TEUs.

(b). Optimal Quay Capacity:

(i). As stated earlier, the NMPT has considered 2 quay cranes as against the requirement of 3 quay cranes for the berth length of 300 mtrs. as per the norms prescribed in the guidelines. The port has justified that the deviation made with reference to number of quay crane is on account of the limited yard capacity due to limited land availability. The port has, therefore, proposed to deploy 2 quay cranes instead of 3 nos. so that the optimal quay capacity is more or less closer to the optimal yard capacity. It is notable that if the norm of 3 quay cranes prescribed in the guidelines is considered, the optimal quay capacity would be 5.97 lakh TEUs as against the optimal yard capacity assessed at 3.74 lakh TEUs per annum. Since the proposal of the port to restrict the number of quay cranes to two numbers is with the intention of not unduly burdening the tariff with cost of idle investments, and also recognising that the Ministry of Shipping has approved the proposal of the port for two quay cranes and submitted it to the Public Private Participation Appraisal Committee, this Authority accepts the deviation made by the port with reference to the number of quay cranes.

(ii). The productivity of the quay crane at 25 moves per hour TEU are considered as per the norms prescribed in the guidelines. The point made by Grup Marítim TCB, S.L to reckon 18 moves per hour is not as per the productivity norms prescribed in the guidelines.

(iii). Applying the norms and formula prescribed in the guidelines the optimal quay capacity is calculated at 398580 TEUs per annum for the container terminal.

(c). As per the guidelines, optimal capacity of the Container terminal is considered at 374406 TEUs per annum being the lower of the optimal quay and yard capacities.

(vi). Capital cost:

The total capital cost of the container terminal to achieve the optimal capacity of 3.74 lakh TEUs is estimated at Rs.275.82 crores of which Rs.104.77 crores is allocable to berthing activity and Rs.171.04 crores is estimated for container handling services as explained below:

(a). Berthing activity:

Norm for calculation of berth hire has not been specifically incorporated in the guidelines for fixation of upfront tariff for container terminals. This Authority has already recommended to the Government to follow the same methodology prescribed for iron ore, coal, multipurpose cargo and liquid bulk handling berths set out in the guidelines for this category also. As per the guidelines for above said terminals, the capital cost under berthing activity will comprise cost of construction of berth and cost of dredging, if any, carried out alongside the berth as per the estimates by the Port Trust.

The total capital cost for berth hire services is estimated at Rs.104.77 crores which includes Rs.12.25 crores for dredging in front of the berth. The civil cost estimation for berth hire includes 10% other cost i.e. Rs.9.52 crores as a provision towards other cost and financing cost including Interest During Construction period, etc. The port has submitted that the cost towards Interest During Construction (IDC) generally works out nearly 7% - 8% of the project cost and hence it is justified to consider 10% cost towards other cost including finance cost for construction of berth. It has stated that though there are no norms prescribed in the guidelines for the same, the cost toward financing cost is to be provided as it is not different from other investments.

Though norm prescribed in the guidelines do not specifically provide for this cost item for berth cost, the point made by the NMPT to factor the financing and other cost are found to be relevant and justified. For estimating capital cost for container handling services, the guidelines already stipulate norm for estimating 'other cost' at 10% of the civil and equipment cost to account for interest during construction, working capital, etc. The 'other cost' estimated by the NMPT at 10% of the total cost of berth is in line with the norms prescribed for estimating this item for container handling facilities and hence is allowed.

The NMPT has confirmed that estimation of civil cost is based on the prevailing rate of August 2009. The estimate made by the NMPT is relied upon for fixing upfront tariff.

With reference to the observation made by Grup Marítim TCB about estimating the dredging cost based on the prevailing rate of Rs.150 per cubic metre, the NMPT has clarified that it has made provision separately for mobilization and demobilization separately which if considered will work out to the unit rate suggested by the prospective applicant.

(b). Cargo handling activity:

(i). As stated earlier, the number of quay cranes is considered as two instead of three numbers. The numbers of Rubber Tyred Gantry Cranes (RTGCs), Reach Stackers and Tractor Trailers considered by the NMPT are in line with the normative level of equipment prescribed in the guidelines but with reference to two number of quay cranes proposed to be deployed by the port. The reason for accepting deviation made by the NMPT in respect of quay cranes is explained in the preceding paragraphs. Consequently, the proposed complement of RTGCs, reach stackers and tractor trailers which are co-related with reference to number of two quay cranes proposed to be deployed is also accepted.

(ii). The guidelines stipulate deployment of one Rail Mounted Gantry Cranes (RMGC) for handling six rakes per day. The NMPT has not included cost of this equipment in the capital cost stating that it does not expect ICD Containers by rail to be handled at the Container Terminal. Relying on the submissions made by the port and also recognising that none of the users/ bidders have raised any pointed objection on non-inclusion of the RMGC in the estimation of container handling equipment cost, the deviation proposed by the port is accepted.

(iii). The port has furnished analysis of unit rate adopted for estimating civil cost and has stated that the unit rate adopted for estimating civil cost are based on prevailing market rate i.e. of August 2009. With reference to equipment cost, the port has substantiated the estimates with copies of quotations received from suppliers which are of August 2009. Assuming developer will avail 'Export Promotion for Capital Goods' (EPCG), port has considered 3% duty on imported equipment and has furnished detailed computation of equipment cost estimation.

The unit rates of equipment furnished by the NMPT are relied upon based on the documentary evidence furnished by the port subject to updating the exchange rate prevailing at the time of analysis this case. The exchange rate applied by the NMPT for conversion of budgetary quotations in foreign currency is 1 Euro = Rs.69.89 which is updated to 1 Euro = Rs.66.7875 as prevailing at the time of analysis of this case with consequent changes in duty.

(iv). With reference to the point made by one of the prospective bidders about considering the capital cost for truck parking area, the port has clarified that Truck parking area and construction of boundary wall, road & common corridor, etc. are to be executed by the port and hence no provision has been made for these items in the capital estimates. It is to be noted that the licence fee leviable by the port for this area is, however, calculated as applicable for paved area, in view the development to be carried out by the port at its cost.

(v). The revised container handling equipment cost subject to modification in the exchange rate explained above works out to Rs.120.04 crores as against Rs.125.48 crores estimated by the NMPT.

(c). IT System Cost and Other Cost

The capital cost for IT systems and other items are estimated at 2% and 10% respectively of the sum of the civil cost and container handling equipment cost as per the norms prescribed in the guidelines.

(d). Based on the above analysis, the aggregate capital cost works out to Rs.269.73 crores as against Rs.275.82 crores estimated by the NMPT.

(vii). The Return on Capital Employed at 16% on the modified capital cost for container handling service works out to Rs.26.39 crores. The ROCE for berth hire service is Rs.16.76 crores as estimated by the NMPT.

(viii). Operating Cost:

(a). Consumption of power is considered as per the norms at 8 KWH per TEU. The unit cost of power considered by the NMPT is Rs.8.00 per unit which is substantiated with copy of the electricity bill issued by the Mangalore Electricity Supply Company Limited for the month of November 2009.

(b). Consumption of fuel is considered at 4 litres per TEU as per the consumption norms prescribed in the guidelines. The unit cost of fuel considered is considered at prevailing rate reported at Rs.37.01 per litre.

(c). As per the norms, repairs and maintenance cost is estimated at 1% on the civil assets and 2% of equipment and IT cost. The insurance cost is estimated at 1% of the gross fixed assets and other expenses at 15% of the gross value of fixed assets (for terminals having capacity less than 0.5 million TEUs) as per the norms prescribed in the guidelines.

(d). 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 container handling equipment and 16.20% for IT systems as per the rates prescribed in the Companies Act under the SLM for the relevant group of assets. The depreciation rate prescribed in the Companies Act for IT system is 16.21% against 16.20% considered by the NMPT. The computation of depreciation is modified to that extent. This will, however, not have any significant impact on the total operating cost.

While calculating depreciation, the other assets are duly taken proportionately under civil and equipment cost and depreciated.

(e). Lease rental is estimated for a total area of 106000 sq. mtrs. of land including 20000 sq. mtrs. proposed to be allotted by the port for trailer / truck parking area.

The guidelines stipulate the lease rental to be considered as per the rates prescribed in the Scale of Rates of the concerned Major Port Trust. The port has considered a rate of Rs.9.37 per square metre per month for 86000 sq. mtrs of area based on the prevailing rate for semi paved area and Rs.20.22 per square metre per month for 20000 sq. mtrs of area based on the prevailing rate for paved area.

(f). The total operating cost based on the above analysis works out to Rs.53.64 crores as against Rs.55.37 crores estimated by the NMPT for container handling service.

(ix). For estimating the operating cost for berth hire service, the NMPT has considered maintenance cost at Rs.0.30 crores, 1% of the capital cost towards insurance, 3.34% of the capital cost of berth towards depreciation and 5% of the capital cost of berth towards miscellaneous cost.

As mentioned earlier, the norms for determination of capital & operating cost for berthing activity are not incorporated in the guidelines for fixation of upfront tariff for the services rendered at the container terminal. The matter has already been referred to the Government and the response of Government is awaited. The guidelines prescribed for other terminals for calculation of berth hire can be applied in this case also as done in the upfront tariff fixation of Container Terminal at JNPT.

Although the guidelines restrict the operating cost at 1% of the berth cost, the asset requires adequate insurance coverage and the fact that the value of asset will depreciate due to wear and tear also cannot be denied. While fixing upfront berth hire for this position was recognized and the cost of insurance and depreciation were considered to assess the Annual Revenue Requirement from berthing service with reference to upfront tariff fixation of other Major Port Trusts including Container Terminal at JNPT.

In view of the position explained above, 1% of the capital cost towards maintenance, the element of insurance cost at 1% and depreciation at 3.34% of the capital cost are considered while estimating the operating cost for assessment of the revenue requirement from berth hire service.

The miscellaneous operating cost estimated by the NMPT at 5% of the berth cost is not found to be in line with the approach followed in upfront tariff fixation of berth hire at other Major Port Trust including the upfront tariff fixation Container Terminal at JNPT. There is no justification furnished by the port to deviate from the approach adopted in other cases. The estimation of miscellaneous operating cost under berth hire service by the NMPT is therefore not considered.

The total operating cost for berthing service based on the above analysis is estimated at Rs.5.60 crores as against Rs.10.09 crores estimated by the NMPT for berthing services.

(x). The statement for fixing upfront tariff cap for container terminal in line with the above analysis is attached as **Annex - I**.

(a). The total revenue requirement for the container handling activity works out to Rs.80.03 crores which is an aggregate of 16% Return on a capital cost (i.e. Rs.26.39 crores) and operating cost (Rs.53.64 crores).

(b). The guidelines require 90% of the total revenue requirement to be apportioned to handling charge, 7% towards storage charge and 3% towards miscellaneous charge.

Accordingly, Rs.72.03 crores lakhs is to be realised from container handling charges, Rs.5.60 crores from storage charge and Rs.2.40 crores from miscellaneous charges to meet the total revenue requirement of Rs.80.03 crores.

(xi). The guidelines do not prescribe any specific methodology for deriving unit rates in the Scale of Rates for different services from the revenue requirement. The container handling charges include tariff items for various services and further the rates differ based on the type and size of containers.

(xii). The Scale of Rates for upfront tariff is, therefore, to be drawn up by iteration taking the tariff structure and the pattern of various services offered by other similar functioning terminal as the base so as to achieve the normative annual revenue requirement. The same approach was adopted while setting upfront tariff for container handling at Tuticorin Port Trust and Jawaharlal Nehru Port Trust.

(xiii). The NMPT has submitted that the container presently handled at the port is not significant and hence the cargo mix would not represent the cargo handled by the Major Indian container terminals. In view of this, it has assumed the container mix and other details of the other major container handling Port like JNPT and PSA SICAL Terminal operating at Tuticorin Port Trust with necessary adjustments. The cargo mix in respect of laden and empty and import and export is considered as per the container terminal at TPT. Citing that there is scope for transhipment of container due to proximity to the international navigational route, it has proposed 15% of the optimal capacity will be the share of transhipment containers. The container mix adopted by the NMPT is relied upon in this analysis subject to modification in the share of transhipment containers. It is relevant to mention here that at the Jawaharlal Nehru Port Trust (JNPT) which is one of the leading container terminals in India, transhipment traffic constitutes 9% of its total traffic. Even for fixation of upfront tariff for the JNPT's container terminal, 9% of the optimal capacity is assumed to be the share of transhipment container. In the light of this position and also recognising that an international transhipment container terminal is already developed at its neighbouring port of Cochin, it is difficult to accept the transhipment share assumed by the port. Hence, for the purpose of deriving the unit rate for meeting the estimated revenue requirement, the share of transhipment container is maintained at the level estimated in JNPT i.e. 9%. Consequently, the share of normal container is suitably adjusted for the differential share.

(xiv). The port has furnished detailed revenue calculation at the proposed tariff so as to meet the estimated revenue requirement. The rate for movement of empty container from yard to truck is wrongly considered higher than the rate for laden container. In the Scale of Rates proposed by the port earlier, the rate proposed was uniform for laden and empty containers. At the other ports viz. TPT and JNPT also, uniform rate for yard and truck is prescribed irrespective of whether container is laden or empty. With the correction of this error and after modifying the share of transhipment container, the estimated revenue from the handling charge proposed by NMPT is Rs.74.17 crores as against revenue requirement of Rs.72.03 crores determined under normative method. Thus, in order to meet the revenue requirement from handling services the tariff proposed by the NMPT is to be decreased by 2.89%.

(xv). (a). The NMPT has proposed 2 days free dwell time for import laden container and 3 days free dwell time for export laden containers. The free dwell time proposed for empty containers is 2 days, 15 days for transhipment laden containers, and 7 days for transhipment empty containers. The tariff guidelines of 2005 give the flexibility to individual major ports to propose the number of free storage days. The free period proposed by NMPT is considered for fixing the upfront tariff scheduled of the container terminal.

(b). For deriving the unit rate of storage charge to meet the estimated revenue requirement of Rs.5.79 crores, for the port has assumed certain structure of dwell time of containers at the yard. The assumptions made by the NMPT for deriving the unit rate of storage charge are relied upon. The only modification done is with reference to share of transhipment containers as explained in the preceding paragraph. Accordingly, to meet the revised revenue requirement of Rs.5.60 crores estimated under normative method, the rate for the first slab works out to Rs.116.35 per container per day as against Rs.117 per container per day proposed by the NMPT for a 20' foreign container. The differential rate between the subsequent slabs are maintained following the approach adopted by the NMPT.

(xvi). Miscellaneous charges are proposed to be recovered through services provided for reefer monitoring, shifting containers, additional services in the container yard for hatch cover opening and replacing, etc. The port has explained the basis for arriving at the proposed rate. The port has not furnished any working to show that the proposed rates will meet the estimated revenue requirement through levy of miscellaneous charges. Recognising that miscellaneous services constitute 3% of the total revenue requirement as per the norms prescribed and that they are not substantive services, tariff proposed for all miscellaneous items are reduced by 3.22% which is required to maintain the normative level of revenue requirement.

(xvii). It may be noteworthy that some of the container related tariff items and berth hire for foreign going vessels are prescribed in dollar terms in a few existing terminals. It has already been decided in other upfront tariff cases that prescribing dollar denominated tariff is not appropriate in the upfront tariff cases which will have a validity of 30 years. Firstly, applying a WPI based escalation on a foreign currency is not correct. Secondly, the foreign exchange variation over the next 30 year can not be predicted. In case of any abnormal variations, either the users or the operator will have to bear the incidence, depending on which side the appreciation takes place. This Authority has, therefore, prescribed the upfront berth hire which is normally prescribed in dollar terms in rupee denomination. Following from this decision, the dollar denominated container related tariff and berth hire in this case also are prescribed in rupee terms.

(xviii). (a). The total revenue requirement for the berthing services works out to Rs.22.36 crores which is an aggregate of 16% Return on a capital cost (i.e. Rs.16.76 crores) and operating cost (Rs.5.59 crores).

(b). For the purpose of deriving the unit rate of berth hire from the calculated annual revenue requirement from this activity, the NMPT has assumed six groups depending on the LOA and average GRT of vessel as assumed in the fixation of upfront tariff of container terminal at JNPT. For each group the NMPT has assumed average parcel size of vessel, and the share of container to be carried by ships falling under each category. The assumptions made by the NMPT about the various categories of vessel, their parcel size, etc., are assumed to have been done by the port after detailed study and hence are relied upon for arriving at the unit rate of berth hire. In view of modified revenue requirement of Rs.22.36 crores, the unit rate of berth hire will be Re.0.79 per GRT per hour in case of foreign going vessel and Re.0.47 per GRT per hour for coastal vessel. Calculation of berth hire charge is attached as **Annex - II**.

(xix). The NMPT has proposed levy penal berth hire in addition to berth hire for stay beyond 2 hours in order to discourage ships from overstayal at the berth. No such prescription for levy of penal berth hire is available in the existing Scale of Rates of the NMPT. Since the penal berth hire proposed are only to act as a deterrent against over stayal of vessel, this Authority is inclined to approve this item. The NMPT has proposed the rate for this item same as prescribed in the upfront tariff of JNPT. Since the berth hire in the case of NMPT is around 50% of the upfront rate prescribed for container terminal at JNPT, the penal berth hire proposed by NMPT is reduced by 50%.

(xx). A premium of 25% is proposed on hazardous cargo containers for composite handling rate from ship to yard, yard to truck over the rate prescribed for normal container. The tariff guidelines of 2005 allow 25% premium on hazardous cargo container over the applicable handling charges. Hence, the tariff proposed for hazardous cargo containers is prescribed at 25% over the revised handling charge prescribed for the normal containers.

(xxi). The NMPT has also proposed 100% premium on over dimensional containers with reference to handling rate and rate for movement from yard to truck. In the upfront tariff for container terminal for TPT, the rate prescribed for over dimensional container is prescribed 1.25 times the rate for normal container while prescribing the rate for over dimensional container. It is relevant here to mention that this Authority has prescribed the premium at 100% on handling charges of over dimensional containers in case of the container terminal of JNPT, Nhava Sheva International Container Terminal Limited and Gateway Terminals India Private Limited and upfront tariff fixed for container terminal at JNPT. Based on the position obtained at these terminals, the 100% premium proposed in the case of over dimensional containers is accepted.

11.1. 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 are based on the 2009 figures as reported by the NMPT, it is appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2009. A general note in this regard is included in the Scale of Rates.

11.2. 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.

11.3. 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.

11.4. 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.

11.5. 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 New Mangalore Port Trust. If any action is to be taken against the private operators, the New Mangalore Port Trust shall initiate appropriate action in accordance with the provisions of the relevant Concession Agreement.

11.6. 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 New Mangalore Port Trust a report containing the terminal's physical and financial performance during the preceding three months.

12. In the result, and for the reasons given above and based on a collective application of mind, this Authority approves the tariff caps for the container terminal at New Mangalore Port Trust attached as **Annex - III**.

(Rani Jadhav)
Chairperson

ANNEX - I

CALCULATION OF UPFRONT TARIFF FOR CONTAINER TERMINAL AT NEW MANGALORE PORT TRUST

Rs. in crores

Sr.No.	Particulars	Norms prescribed in the guidelines	Calculation furnished by NMPT	Estimates by NMPT	Estimates modified by TAMP
I	**Optimal Capacity**				
(i).	**Optimal Quay Capacity**				
	A=Number of gantry developed for work in an year.	=Berth Length/100	=300/150	2.00	2.00
	B=Number of working hours of gantry crnes in an	=24*365 hours	=24*365 hours	8760.00	8760.00
	C=Average number of moves per gantry crane.	=25 moves per hour	=25 moves per hour	25.00	25.00
	D=TUE ratio	=1.3		1.30	1.30
	E=70%	=70%		0.70	0.70
	Optimal quay capacity=A*B*C*D*E TEUs			**398580.00**	**398580.00**
(ii).	**Optimal yard capacity**				
	G=Total ground slot in TEUs	=720 TEUs per Hectare	The 720 TEUs per Hectare is not feasible. In JNPT adopted 286 TEUs / hec. The NMPT adopted 360 TEUs/ (360 TEUs * 6.35 hectares) = 2286 ground slots . Original proposal 6 hec of land for ground slot revised to 6.35 hec in the revised proposal.	2286	2286
	H=Average stack height	=2.50	=2.50	2.50	2.50
	P=Period or number of days	=365	=365	365.00	365.00
	S=surge factor	=1.3	=1.3	1.30	1.30
	D=Average dwell time	=4 days for export & 2 days for import	=(4*50%+(2*50%*)	3.00	3.00
	Optimal yard capacity=0.7*G*H*P/S*D in TEUs			**374405.77**	**374405.77**
(iii).	**Optimal capacity of the terminal- lower value of the optimal quay and optimal yard capacity (in TEUs)**			**374405.77**	**374406.00**
II	**Capital Cost**				
(i).	**Berth Hire Service**	**Norms wherever prescribed**		**Rs. in crores**	
	(a). Civil cost				
	(i). Soil investigation, Hydrographic survey and Detailed Engineering			2.00	2.00
	(ii). Construction of piled berth 300 X 25 m, including accessories like fenders, bollards, chain, ladders, crane track, storm anchor, stow pin etc.,			50.00	50.00
	(iii). Construction of diaphragm wall including anchoring.	As estimated by Port Trust		30.50	30.50
	(iv). Dredging in front of berth including removal of pinnacle & disposal of dredged material			12.25	12.25
	(v). Construction of stone protection work			0.50	0.50
	(vi). Contingencies and financing cost such as project supervision charges, works contract tax, etc @10 % of Civil Cost (i) to (v)			9.52	9.52
	Total Cost for Berth hire Services			**104.77**	**104.77**
(ii).	**Container Handling facilties**				
	(a). Civil Cost				
	(i). Development of container parking yard including RTG track, surface drainage, slot marking etc.			18.00	18.00
	(ii). Construction of buildings, electrical sub station, control room, stores office, workshop, admin building,rest room, canteen and security etc.,			4.00	4.00
	(iii). Roads, fencing, boundary wall, entrance & exit gates	As estimated by Port Trust		1.80	1.80
	(iv). Water supply & Sewage arrangements			1.50	1.50
	(v). Miscellaneous works such as fire fighting, ambulance, first aid post, green belt, & environment mitigation measures			1.60	1.60
	(vi). Unforeseen & contingencies			0.34	0.34
	Subtotal (a)			**27.24**	**27.24**

Sr.No.	Particulars	Norms prescribed in the guidelines	Calculation furnished by NMPT	Estimates by NMPT	Estimates modified by TAMP
	(b). Container Handling Equipment				
	(i). Quay gantry Crane	1no. For 100 metres berth length	2 QGC have been considerd	68.05	65.03
	(ii). Rail Mounted Gantry Crane	1no. For hadling 6 rakes/ day	estimation as ICD movement not envisaged	0.00	0.00
	(iii). Rubber Tyred Gantry Crane	3nos. For ech Quay Gantry crane	3nos. For ech Quay Gantry crane	51.90	49.60
	(iv). Reach Stacker/ Top Lift Truck	1no. For 9 RTG's	1no. For 9 RTG's	2.52	2.41
	(v). Tractor Trailers	6nos. For each Quay Gantry Crane	6nos. For each Quay Gantry Crane	3.00	3.00
	Subtotal (b)			**125.48**	**120.04**
	Subtotal (a+b)			**152.72**	**147.28**
	(c). IT system cost	2% Civil & Equipment Cost	2% of Civil and Equipment Cost	**3.05**	**2.95**
	(d). Other cost	10% Civil & Equipment Cost	10% Civil & Equipment Cost	**15.27**	**14.73**
	(e). Total capital cost for container handling service (a+b+c+d)			**171.04**	**164.95**
	Total Capital cost of the Project (i) + (ii)			**275.82**	**269.73**
III	**Operating Cost Estimation**				
		Norms		**Rs. in crores**	
	(a). Power Cost	8KWH per TEU* Prevailing unit rate	8KWH*Rs 8.00 per unit.	2.40	2.40
	(b). Fuel	4 Litres per TEU* Prevailing unit rate	4 Litres *Rs 37.01 per Lts	5.54	5.54
	(c). Repair & Maintenance				
	- Civil Assets	1% of Civil assets	1% of Civil assets	0.27	0.27
	- Equipment	2% of Cost of Equipments and electrical cost	2% of Equipment cost & IT system	2.57	2.46
	(d). Insurance	1% of Gross fixed assets	1% of Gross fixed assets	1.71	1.65
	(e). Depreciation	As per Companies Act	As per Companies Act	15.77	15.13
	(f). Licence Fee	As per the rates prescribed in the Scale of Rates of the concerned Port Trusts	(86000sq.mtres * Rs 10/ Sq.mtr.mth for semi paved area and 20000 sq metres at Rs.20.22 for paved area)	1.45	1.45
	(g). Other Expenses (for teminals having less than 0.5 million TEUs)	15% of Gross fixed assets value	15% of Gross fixed assets	25.66	24.74
	Total operating cost (a to g)			**55.37**	**53.64**
IV	**Annual Revenue Requirement ARR**				
(i).	**Container Handling Services**				
	(a). Total operating cost			55.37	53.64
	(b). Return on Capital Employed @ 16%			27.37	26.39
	(c). Total Revenue requirment			**82.74**	**80.03**
	Apportionment of Revenue Requirement				
	(a). Container Handling Charges	% of total ARR			
	(b). Storage Charges	90%	90%	74.46	72.03
	(c). Miscelleneous Charges	7%	7%	5.79	5.60
	(d). Total Revenue requirement	3%	3%	2.48	2.40
			100%	**82.74**	**80.03**
(ii).	**Berth hire**			(in crores)	
	(a). Operating cost				
	(i). Maintenance Cost			0.30	1.05
	(ii). Depreciation		3.34%	3.50	3.50
	(iii). Insurance cost		1% on captial cost of berth	1.05	1.05
	(iv). Miscellaneous cost		5% on captial cost of berth	5.24	0.00
	Total Operating Cost for berth hire service			**10.09**	**5.60**
	(b). Revenue requirement from berthing service				
	(i). Operating cost			10.09	5.60
	(ii). ROCE at 16%			16.76	16.76
	Total Revenue requirement			**26.85**	**22.36**

ANNEX - II

CALCULATION OF BERTH HIRE CHARGES

LOA (metres)	Average Parcel Size (2)	No.of Ships (3)	Average GRT (4)	No. of cranes to be deployed (5)	No. of hours vessel stays at Berth (6)	GRT Hours
	(Given by NMPT)	**(Given by NMPT)**	**(Given by NMPT)**	**(Given by NMPT)**	**(2/5*25 moves)**	**(3*4*6)**
0-140	434.00	9	8040	2	8.68	628,085
140-180	631.00	18	15200	2	12.62	3,452,832
180-220	1432.00	54	28000	2	28.64	43,303,680
220-260	2500.00	72	36000	2	50.00	129,600,000
260-300	3500.00	18	48000	2	70.00	60,480,000
300+	4000.00	9	72000	2	80.00	51,840,000
		180				**289,304,597**

Berth Hire Revenue Requirement			Rupees	223,636,094
Total GRT Hours	GRT hours	289,304,597		
Berth Hire/ GRT per Hour or part thereof				

Total Revenue requirement for 96% of Foreign going vessels 4% for costal vessels				Rupees	**223,636,094**
	GRT Hours for foreign going vessels		(289304597 * 96%)		277,732,413
	GRT Hours for Costal vessels		(289304597 * 4%)		11,572,184
Thus	277732413 x + 0.6 * 11572184 x	=	223636094		
	284675723 x	=	223636094		
So, X,	Berth Hire for foreign going vessel Re. per GRT per hour	**0.79**			
	Berth Hire for Coastal vessel = 0.6 of foreign vessel rate	**0.47**			

ANNEX - III

NEW MANGALORE PORT TRUST

UPFRONT TARIFF SCHEDULE FOR CONTAINER TERMINAL

CHAPTER - 1
DEFINITIONS & GENERAL TERMS & CONDITIONS

1.1. DEFINITIONS - GENERAL

(i). **"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 competent authority.

(ii). **"Foreign-going vessel"** shall mean any vessel other than Coastal vessel.

(iii). **"FCL"** means Containers said to contain Full Container Load.

(iv). **"LCL"** means Containers said to contain Less than full Container Load (Container having cargo of more than one importer/exporter).

(v). **"Hazardous container"** means a Container containing hazardous goods as classified under International Maritime Organisation (IMO).

(vi). **"Import container"** means a container discharged from one vessel, stored in container yard and delivered.

(vii). **"Export container"** means a container received, stored in container yard and loaded on the assigned vessel.

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

(ix). **"Normal Container"** shall mean general type containers, not falling under special categories mentioned subsequently.

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

(xi). **"Transhipment Container"** shall mean a container, which is discharged from one vessel, stored in the yard and transported through other vessel.

(xii). **"Over dimensional Container"** shall mean a container carrying over dimensional cargo beyond the normal size of standard container and needing special devices like slings, shackles, lifting beam, etc. They also include damaged containers and other types which require special devices.

(xiii). **"Shut out Container"** shall mean a container which enters into the port as an export intake for a particular vessel (as indicated by the Vessel Identification Advice Number, i.e. VIA No.) and is not connected to the particular vessel for reasons whatsoever, then the container is termed to be a shutout container.

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

(xv). "**VIAN**" means Vessel Identification Advise Number.

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 classifying into ‘coastal’ or ‘foreign going’ category 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 port 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 ports.

(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). Vessel related charges shall be levied on Shipowners/Steamer Agents.

(iv). (a). The Vessel related charges for all Coastal vessels should not exceed 60% of the corresponding charges for other vessels.

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

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

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

(e). The charges for coastal containers / vessels shall be denominated and collected in Indian Rupee.

(v). Interest on delayed payments / refunds:

(a). The user shall pay penal interest on delayed payments under this Scale of Rates. Likewise, the operator shall pay penal interest on delayed refunds.

(b). The rate of penal interest will be 2% above the Prime Lending Rate of State Bank of India (SBI). The penal interest rate will apply to both the operator and the port users equally.

(c). The delay in refunds by the Terminal Operator will be counted beyond 20 days from the date of completion of services or on production of 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 operator. This provision shall, however, not apply to the cases where payment is to be made before availing the services/ use of Port

Trust's properties as stipulated in the Major Port Trust Act and / or where payment of charges in advance is prescribed as a condition in this Scale of Rates.

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

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

(b). The Operator 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 operator should notify the public such lower rates and / or rationalization of the conditionalities governing the application of such rates and continue to notify the public any further 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.

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

CHAPTER - 2
VESSEL RELATED CHARGES

2. Schedule of Berth Hire Charges

Sl. No.	Description	Rate per GRT per hour or part thereof (Re.)	
		Foreign Vessel	**Coastal Vessel**
1.	For Occupying the Berth	0.79	0.47

Notes:

(i). Vessels shall be permitted to occupy the berth for 2 hours after completion of cargo operation without attracting Penal berth hire charges.

(ii). All the vessels shall commence cargo operations within 1 hour from the time the ship is brought along side the berth failing which penal berth hire charges shall levied as prescribed in (iv) below.

(iii). Vessels idling the Terminal facilities due to not being ready to work even though the terminal is ready for its operation shall attract penal berth hire charges as prescribed in Note (iv) below. For the purpose of levy of penal berth hire charges, idling shall mean suspension/stoppage for any reason of cargo handling operation continuously for more than two hours.

(iv). Penal berth hire charges shall be levied as follows in addition to berth hire charges beyond 2 hours:

Sl. No.	Description	Rate Per GRT
1.	Upto 6 hrs.	Rs.5.00
2.	Above 6 hours but upto 12 hours	Rs.7.50
3.	Above 12 hrs	Rs.15.00

(v). Penal berth hire charges mentioned above shall not be leviable if the idling of vessel is attributable to the terminal or port or due to adverse tidal conditions or bad weather and rain resulting in stoppage of operation.

(vi). (a). There shall be a time limit beyond which berth hire shall not apply; berth hire shall stop 4 hours after the time of vessel signaling its readiness to sail. The time limit of 4 hours prescribed for cessation of berth hire shall exclude the ship's waiting period for want of favourable tidal conditions or on account of inclement weather or due to absence of night navigation facilities.

(b). There shall be a "penal berth hire" equal to one day's berth hire charges for a false signal.

(c). The Master / Agent of the vessel shall signal readiness to sail only in accordance with favourable tidal and weather conditions.

(d). The time limit of 4 hours prescribed for cessation of berth hire shall exclude the ship's waiting period for want of favourable tidal conditions.

(vii). Berth hire charges shall not be levied for the period, when a vessel idles at berth due to breakdown of port equipment or power failure or any other reasons attributable to the operator.

CHAPTER - 3
CHARGES FOR SERVICES RENDERED TO CONTAINERS AND CONTAINERIZED CARGO

GENERAL TERMS AND CONDITIONS

(i). Containers less than and up to 20' will be reckoned as one TEU (Twenty Equivalent Unit) and more then 20' and up to 40' will be reckoned as one FEU (Forty Equivalent Unit) for the purpose of tariff.

(ii). All charges for containers more than 20' in length and upto 40' in length will be 150 per cent of the applicable charges prescribed and for containers above 40' in length it will be 200 percent of the applicable charges prescribed on per TEU basis in the Scale of Rates.

(iii). Containers other than that of standard size requiring special devices/slings/handling will be charged twice the applicable rates. Such containers will also include damage containers and any other type requiring special devices.

3.1. CHARGES FOR HANDLING AND MOVEMENT OF CONTAINERS:

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

A. Normal Containers

Sl. No.	Description	Rate per TEU (in Rs.)			
		Foreign Container		Coastal Container	
		Loaded	Empty	Loaded	Empty
1.	From Ship to container yard or vice versa	1883.93	1507.15	1130.36	904.29
2.	From Container yard to Truck or vice versa	282.59	282.59	282.59	282.59

B. Reefer Containers

Sl. No.	Description	Rate per TEU (in Rs.)			
		Foreign Container		Coastal Container	
		Loaded	Empty	Loaded	Empty
1.	From Ship to container yard or vice versa	1883.93	1507.15	1130.36	904.29
2.	From Container yard to Truck or vice versa	282.59	282.59	282.59	282.59

C. **Hazardous Containers**

Sl. No.	Description	Rate per TEU (in Rs.)	
		Foreign Container	Coastal Container
		Loaded	Loaded
1.	From Ship to container yard or vice versa	2354.92	1412.95
2.	From Container yard to Truck or vice versa	353.24	353.24

D. **Transhipment Containers**

Sl. No	Description	Rate per TEU (in Rs.)			
		Foreign Container		Coastal Container	
		Loaded	Empty	Loaded	Empty
1.	Transhipment container	2354.92	1883.93	1412.95	1130.36

Notes:

(i). A container originally declared as transhipment container, subsequently moved by rail or road will lose its identity as a transhipment container and shall be treated as a normal import container and prescribed charges as applicable shall be payable.

(ii). A container from foreign port landing at the container terminal for subsequent transhipment to an Indian Port on a coastal voyage or vice versa would be charged at 50% of the transhipment charges prescribed for foreign going vessels and 50% of that prescribed for coastal category.

E. **Over Dimensional Cargo Containers**

Sl. No.	Description	Rate per TEU (in Rs.)			
		Foreign Container		Coastal Container	
		Loaded	Empty	Loaded	Empty
1.	From Ship to container yard or vice versa	3767.87	3014.29	2260.72	1808.58
2.	From Container yard to Truck or vice versa	565.18	565.18	565.18	565.18

General Note: The consolidated charges as above include the following elements viz., stevedoring, use of Gantry crane, use of transfer crane, wharfage on tare weight of containers, wharfage on containerized cargo & transportation.

3.2. DWELL TIME CHARGES FOR CONTAINER, STORED IN THE PORT PREMISES

Sl. No.	Particulars	Rate per container per day or part thereof (in Rs.)					
		Foreign Container			Coastal Container		
		Upto 20' in length	Over 20' to upto 40' in length	Above 40' in length	Upto 20' in length	Over 20' to upto 40' in length	Above 40' in length
1.	Import-loaded						
	First 2 days	Free	Free	Free	Free	Free	Free
	3-6 days	116.35	232.70	349.05	116.35	232.70	349.05
	7-15 days	232.70	465.40	698.10	232.70	465.40	698.10
	Thereafter	465.40	930.80	1396.20	465.40	930.80	1396.20
2.	Export-Loaded						
	First 3 days	Free	Free	Free	Free	Free	Free
	4 days -6 days	116.35	232.70	349.05	116.35	232.70	349.05
	7days to 15 days	232.70	465.40	698.10	232.70	465.40	698.10
	Thereafter	465.40	930.80	1396.20	465.40	930.80	1396.20

3.	Import/ Export-Empty						
	First 2 days	Free	Free	Free	Free	Free	Free
	3 days -6 days	116.35	232.70	349.05	116.35	232.70	349.05
	7days to 15 days	232.70	465.40	698.10	232.70	465.40	698.10
	Thereafter	465.40	930.80	1396.20	465.40	930.80	1396.20
4.	Transhipment-Loaded						
	First 15 days	Free	Free	Free	Free	Free	Free
	16-30 days	116.35	232.70	349.05	116.35	232.70	349.05
	Thereafter	232.70	465.40	698.10	232.70	465.40	698.10
5.	Transhipment-Empty						
	First 7 days	Free	Free	Free	Free	Free	Free
	8-15 days	116.35	232.70	349.05	116.35	232.70	349.05
	Thereafter	232.70	465.40	698.10	232.70	465.40	698.10

Notes:

(i). (a). Free dwell-time (storage) period for import containers shall commence from the day after the day of landing of the container and for export containers the free period shall commence from the time container enters the terminal.

(b). For the purpose of calculation of free time, Custom notified holidays and Terminal's non operating days shall be excluded.

(ii). Transhipment containers subsequently changing the mode of dispatch locally or to the container freight station for destuffing/stuffing shall loose the concessional dwell time as prescribed in Item (4) above. Dwell time charges for such containers shall be recovered at par with import containers as prescribed in item no. 1 or 2 as applicable.

(iii). The total storage period for a shutout container shall be calculated from the day following the day when the container has become shutout till the day of Shipment/ delivery.

(iv). Over high and over dimensional containers shall attract thrice the normal applicable charges.

(v). Hazardous containers shall attract 1.25 times the normal applicable charges.

(vi). In the case of auction containers, after the auction is over, the empty containers will attract the dwell time charges as empty containers from the following day the destuffing is completed.

(vii). The storage charges shall not accrue for the period during which the Terminal is not in a position to deliver containers for reasons attributable to it when requested by the user.

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

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

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

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

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

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

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

3.3. CHARGES FOR MISCELLANEOUS SERVICES RENDERED TO THE CONTAINER VESSELS:

A. Reefer Monitoring and Connection

Sl. No.	Description	Rate Per TEU (in Rs.)			
		Foreign Going Vessel		Coastal Vessel	
		Loaded	Empty	Loaded	Empty
1.	Additional charges per 4 hours or part thereof for electricity consumption and monitoring of reefer containers	193.56	193.56	193.56	193.56

Note: Additional electricity charge at the prescribed rates will be applicable in case of Reefer Containers also.

B. Other Services Rendered

Sl. No.	Description	Rate Per TEU (in Rs.)			
		Foreign Going Vessel		Coastal Vessel	
		Loaded	Empty	Loaded	Empty
1.	Shifting of containers from one yard to another yard within the terminal for customs inspection or any other purpose and subsequent loading of containers for delivery	938.77	938.77	938.77	938.77
2.	Additional service charges for stacking containers in designated yard for custom examination or for any other purpose by prior arrangement	281.63	281.63	281.63	281.63

C. Opening of Hatch Cover and Replacing it

Sl. No.	Description	Rate per Hatch Cover (in Rs.)	
		Foreign Going Vessels	Coastal Vessels
1.	When placing it on the Quay	3755.06	2253.04
2.	Without placing it on the Quay	1819.46	1091.68

Note: If only one operation is carried out, half of the hatch cover handling charges as above shall be levied.

D. One Hatch to Another Hatch or within the same Hatch

Sl. No.	Description	Rate per Hatch Cover (in Rs.)			
		Foreign Going Vessels		Coastal Vessels	
		Loaded	Empty	Loaded	Empty
1.	Hatch to hatch shifting (involving 1 move only)	938.77	938.77	563.26	563.26
2.	Other than (1) mentioned above	3755.06	3755.06	2253.04	2253.04

4. GENERAL NOTE TO CHAPTER (2) AND (3) 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 2009 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 31st March of the following year.

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

F. No. TAMP/33/2009-NMPT - **Proposal from the New Mangalore Port Trust for fixation of upfront tariff for container handling terminal to be developed on BOT basis at the New Mangalore Port.**

A summary of comments received from Grup Marítim TCB, S.L. and comments of New Mangalore Port Trust (NMPT) thereon are tabulated below:

Sl. No.	Comments of Grup Marítim TCB, S.L.	Comments of NMPT
(i).	**Quay Capacity**: The methodology of TAMP is a simplified way to calculate the optimal capacity. For a terminal with the size proposed by NMPT may require other parameters. For example the way the dock is constructed might lead to larger leap times between the sailing of one vessel and the arrival of another one. Given the small size of the terminal, the size and type of ships that will call at the terminal, it has requested to consider gross crane moves per hour at 18. Based on this, Optimal Quay Capacity will be 286,978 TEUs per annum [2*(24*365)*18*1.3*0.7].	The TAMP methodology for calculating the quay capacity. It gives a value of about 4,00,000 TEU for 2 cranes. The number of cycles per hour has been considered as 25 as per TAMP. This also is the average cycles per hour as reported in the port designers hand book and confirmed by major cranes suppliers. Hence the capacity as calculated may be retained.
(ii).	**Yard Capacity**: Considering the yard dimensions, we calculate a metric of 250 TEUs / hectare. Based on this, Optimal Yard Capacity will be 245,673 TEUs [0.7*1500*2.5*365/(1.3*3)].	The clarification to this query is already furnished to the TAMP.
(iii).	**Indicative Capital Cost**:	
(a).	**Dredging**: Unit rate of Rs.120 per cum is considered for estimating the dredging cost of the berth. The current market rates are at least Rs.150 per cum. The cost of dredging / dry dock excavation excluding pinnacle, therefore would work out to 8.5 crores. Moreover, there is some element of uncertainty in the strata to be dredged in front of berth. It is believed that some rock dredging may be required in front of the berth. Further, for Pinnacle Dredging, only a lump sum amount of Rs.25 lakhs has been considered. This we believe will prove to be grossly inadequate considering that the pinnacle consists of largely rocky material. This itself will require another 10 crores and therefore it is suggested that cost for dredging should be taken as Rs.20 crores, instead of Rs.7.5 crores.	A provision of Rs.2.00 crores has been made for mobilization and demobilization. The unit rate of Rs.120 per m^3 together with the proportionate rate of mobilization and demobilization, works out approximately to about Rs.150 per m^3. As per the bore log details nearest to the berth no.15, it can be seen that there exists only sand mixed with clay and soft rock up to 30 mtrs. Rock exists only below 30 mts. as such rock dredging is not anticipated. However, it could be ascertained after a proper soil investigation by the concessionaire allotment. The exact shape and size of the pinnacle has to be ascertained by carrying out necessary investigation. The pinnacle appears to be a

		minor one and accordingly a provision was made in the estimate for controlled blasting. If the pinnacle is bigger, necessary allotment can be made from unforeseen and contingencies.
(b).	**Diaphragm Wall**: The diaphragm wall will be extended for a distance of 75 mtrs. on the landward side of the 300 mtrs. long berth. The total length of diaphragm wall (1.5 mtrs. thick, approx 25 mtrs. deep) as per the drawings is 625 mtrs. (75+300+250). Based on current rates for such work without anchors, the cost works out to be approximately Rs.41 crores. Adding the cost of anchors (625/2.5 mtrs. spacing and 20 mtrs. length each; = 250 nos.) as Rs.5 crores, the total cost of this item should be Rs.46 crores. NMPT estimate considers the cost of anchors as Rs.50 lakhs only and total cost of the diaphragm wall work as Rs.30.5 crores, which we believe is too much on the lower side.	A thickness of 1.10 m was estimated for the Diaphragm wall. As per IS 9556 – 2008 vide clause 2.4, the standard width for cut off wall is 100 – 800 mm and for structural members it is 450 – 1200 mm. Hence we have considered width of 1100 mm, same as existing diaphragm wall at the port. As such the quantity and rate adopted are correct and needs no revision. As far as anchors are considered, the same may or may not be required depending upon the design of diaphragm wall. The provision considered is adequate.
(c).	**QC rails**: The cost of these Gantrex rails (special quality rails for cranes) and installation is considered as Rs.8000 per metre. Based on current market rates, this should be Rs.25,000 per metre. Therefore, the capex of this item for 600 mtrs. rail length should be Rs.150 lakhs and not Rs.48 lakhs. Hence, the civil berth cost should be Rs.52 crores and not Rs.50 crores.	The estimate provides for the installation of Indian Manufactured Crane Rails, ISCR 120 by SAIL (Steel Authority of India Limited). Present rate of CR 120 rail is Rs.60000 per Tonne which works out to approximately Rs.7000 / m. Hence the rate of Rs.8000 per meter taking in to account the conventional fixing elements is considered adequate for the purpose of estimates.
(d).	**Water and Electricity Supply**: NMPT has mentioned that water and electricity supply has to come from a distance of 2.5 kms, not 1.0 km. This will include capex for the same including 1 transformer, 1 panel, 2500 mtrs. of electrical cables with trench, 2500 mtrs. of water pipeline, which is not considered. This will increase the cost for this element to Rs.5 crores.	A provision of open well, underground sump and overhead tank and distribution lines for water supply has been made with in the container terminal area. Apart from this individual buildings have provisions for water supply and sewage arrangements. The electrical supply will be made available by NMPT with in 1 km of the yard. The distance of 2.5 km if mentioned elsewhere is superceded. In the light of the above the provision made is considered adequate.

(e).	**Quay Cranes**: Rail mounted gantries with 20 mtrs. rail width are not recommendable. Atleast 30 mtrs. span should be considered, given possible future deepening of access channel, which will allow larger vessels to enter. Current cost for 30 mtrs. span panamax cranes is Rs.40 crores per crane. Based on this, the capex towards two such Quay Cranes be considered as Rs.80 crores instead of Rs.68 crores. Soil improvement is most likely required for the complete yard area, and a provision should have been included. For a full fledged soil improvement with sand drains, preloading (earth surcharges, instrumentation monitoring, etc.) is required over the full area, it would cost around Rs.33 crores. This cost has not been considered by NMPT.	For the terminal of this capacity, 20 m Quay crane is considered sufficient. This is a common standard crane adopted in many container yards in the world. It may be noted that the crane track also has a bearing on the width of the berth which is now fixed at 27.0 m wide. Sub soil investigation in the western dock area near berth no 15, (that is available with the port) shows that in general soil profile area consists of the top layer of loose to medium dense sand followed by dense sand. The dense sand is followed by weathered rock before finally reaching the hard rock structure at minus 30 m. A layer of stiff to very stiff clay is also noted in the most of the boreholes. Since the top layer is mostly sandy area, improvement may not be required and so cost implication may not be applicable. However, concessionaire could evaluate by conducting a site survey with soil investigation.
(f).	**Truck Parking Area**: The proposal mentions area of 8.5 ha and truck parking of 2.0 ha. We do not see any investment item related to the truck parking area nor for the additional 2.4 ha (8.5 – 6.1 storage area). We would like to suggest including such investment. The capex for the truck parking and other area (4.4 ha) is not considered by NMPT. For developing the same, a capex of about Rs.9 crores should be added.	The boundary wall, road & common corridor (except the row in front of the utility), Rail track area, 14 m road outside, Truck parking area, Railway siding (present and future) and Empty container yard are all to be executed by NMPT and as such no provision has been made.
(g).	**IT and Security**: The Capex does not include costs towards the CCTV and communications system and the software for security and for controlling all the activities / traffic etc. at the terminal. A sum of Rs.15 crores may be considered towards these items.	Conventional security with wall, fence and guard has been considered and provided for. CCTV has not been considered and is left to the concessionaire's discretion. Communication system has already been considered and it is elaborated in the specification for Quay Gantry cranes of DPR. Plant control room requires same facilities to communicate with the cranes and various other location of the terminal.

<table>
<tr><td>(h).</td><td>Total Capital Cost:
In the submission made by the NMPT there seems to be a clerical error in calculating the Total Capital Cost. In any case, based on the above suggestions, a revised total Capital Cost calculation estimated at Rs.397 crores is attached. (NMPT has assumed capital cost at Rs.171 crores.)</td><td></td></tr>
<tr><td>(i).</td><td>Assessment of Annual Revenue Requirement (ARR):

(a). The purpose of TAMP's proposal is to fix tariff for the new container terminal at Mangalore for next five years. However, it must be remembered that the proposed container terminal at New Mangalore is a brownfield site. Containers are presently being handled at the port at general cargo berths. As per the RFQ, NMPT handled 28,555 TEUs in FY 2009 which means that traffic volumes have increased at a CAGR of 43.58% over the last three years. By our estimation, capacity of the terminal should be assumed as 245,000 TEUs per annum.

(b). Please see the tariff scenarios below:

<table>
<tr><th rowspan="3">Scenario</th><th rowspan="3">2008-09</th><th rowspan="3">2009-10</th><th rowspan="2">Construction</th><th rowspan="2">Construction</th><th>Y1</th><th>Y2</th><th>Y3</th></tr>
<tr><th>Operations</th><th>Operations</th><th>Operations</th></tr>
<tr><th>2010-11</th><th>2011-12</th><th>2012-13</th><th>2013-14</th><th>2014-15</th></tr>
<tr><td rowspan="2">Scenario to reach capacity</td><td>28,555</td><td>34,266</td><td>50,714</td><td>75,056</td><td>111,083</td><td>164,403</td><td>243,317</td></tr>
<tr><td>43.6%</td><td>20.0%</td><td>48.0%</td><td>48.0%</td><td>48.0%</td><td>48.0%</td><td>48.0%</td></tr>
<tr><td rowspan="2">Scenario with logical growth</td><td>28,555</td><td>34,266</td><td>46,259</td><td>64,763</td><td>97,144</td><td>145,716</td><td>189,431</td></tr>
<tr><td>43.6%</td><td>20.0%</td><td>35.0%</td><td>40.0%</td><td>50.0%</td><td>50.0%</td><td>30.0%</td></tr>
</table>

This shows that:

• To achieve 245,000 TEUs per annum in 2014-15 (5th year), traffic will have to grow at 48%, year on year. 20% growth is assumed for the year 2009-10 even though this has been a very poor year due to the on going economic crisis.

• Using a logical but still aggressive growth scenario – 20% growth in volumes in 2009-10, steep increase in volumes after the new terminal is operational and volumes gradually tapering off later, volumes in the 5th year, 2014-15, will only be 189,000 TEUs.

Hence we feel that a volume of 189,000 TEUs should be used to calculate tariff for this terminal.</td><td>The normative based approach for tariff fixation is based on the optimal capacity of the terminal. As such the fixation of upfront tariff does not consider the traffic of a particular Port.</td></tr>
<tr><td>(j).</td><td>Insurance:
Apart from civil and equipment insurance, a Terminal Operator has also to contract other insurances, such as limited liability insurance and personnel insurances. It is suggested to increase the insurance cost estimation for this reason with 0.5% on the civil works.</td><td>The Norms have been followed.</td></tr>
</table>

2. A joint hearing in this case was held on 17 December 2009 at the NMPT premises. The NMPT made a power point presentation of its proposal. At the joint hearing, NMPT and the concerned users / organisation bodies and prospective applicants have made the following submissions:

<u>New Mangalore Port Trust</u>

(i). Our basic intention is to have lower initial capital cost so that investment will be attractive.

(ii). Yard capacity cannot be improved as land availability is limited.

(iii). IDC for berth construction should be considered as it is not different from other investment.

New Mangalore Port Clearing & Forwarding Agents Association

(i). We welcome the project & the proposal.

Kanara Chamber of Commerce and Industry

(i). Storage charges for loaded & empty should be different.

Grup Marítim TCB, S.L.

(i). We reiterate the comments given in our written submission.

(ii). Productivity of 25 moves / hour is very high for a small terminal. It should be 18 moves per hour.

(iii). Capital cost is under estimated and requires to be updated to capture the current market rates.

Steamer Agents

(i). When a dedicated facility is commissioned, the charges to users should go down.

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