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Tariff Authority for Major Ports

G.No. 42

New Delhi,

28 January 2021

NOTIFICATION

In exercise of the powers conferred by Section 48 of the Major Port Trusts Act, 1963 (38 of 1963), the Tariff Authority for Major Ports hereby disposes of the proposal received from Syama Prasad Mookerjee Port (SPMP) [Erstwhile Kolkata Port Trust (KOPT)] for fixation of reference tariff for

on period of 30 years, as in
the Order appended hereto.

(T.S. Balasubramanian)
Member (Finance)

Tariff Authority for Major Ports
Case No. TAMP/47/2020-SPMP (KOPT)

Syama Prasad Mookerjee Port (SPMP)

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Applicant

QUORUM

- (i). Shri. T.S. Balasubramanian, Member (Finance)
- (ii). Shri. Sunil Kumar Singh, Member (Economic)

ORDER

(Passed on this 28th day of December 2020)

This case relates to a proposal received from Syama Prasad Mookerjee Port (SPMP) [Erstwhile Kolkata Port Trust (KOPT)] for fixation of reference tariff for the project of Berth No. 2 [Erstwhile Berth No. 3] at Haldia Dock Complex (HDC) on Design, Build, Finance, Operate,

2.1. The SPMP vide its letter dated 15 January 2019 had forwarded a proposal to TAMP for approval of Reference Tariff on PPP mode related to Mechanization of Berth No. 2 (erstwhile Berth No. 3) of Haldia Dock Complex. After following the consultation process and joint hearing, this Authority had passed an Order dated 29 March 2019. The same was notified in the Gazette of India vide G. No. 200 dated 07 June 2019.

2.2. The SPMP has reported that though the RFQ was invited by SPMP on 10 June 2019, no financial bid (RFP) was received till the bid due date of 03 September 2020 from four qualified bidders. Finally, RFQ was discharged and re-invited on 01 October 2020 on the revised estimated cost based on the revised technical specification of the project. The revised technical estimate is prepared based on the subsequent discussion with the prospective bidders and other port users.

3.1. In this backdrop, the SPMP vide its e-mail dated 12 October 2020 has forwarded a revised proposal for fixing Reference Tariff for mechanization of Berth No. 2 at HDC, based on revised technical and cost estimates. The SPMP has made the following submissions:

- (i). The comparison between the present estimate and specification vis-à-vis earlier estimate & specification is furnished. The present estimate has been prepared based on budgetary offer from the equipment manufacturer / the internal work order rate of HDC. The port has reported reduction in capital cost from ₹331.94 Crores to ₹298.26 Crores due to revised specifications. The copy of budgetary offer / internal work order rate of HDC is furnished.
- (ii). The revised tariff proposal and DPR are furnished. [The cargo handling charge has come down from ₹376.69 to ₹335.90 per tonne]
- (iii). The yard capacity of the project has been calculated considering dwell time of 35 days against actual dwell time of 36.86 days for dry bulk cargo achieved by HDC during the financial year 2019-20.
- (iv). The copy of the Gazette Notification dated 13.08.2019 of change of nomenclature of Berth of HDC is furnished.
- (v). The proposal has been approved by Chairman, SMP, Kolkata and shall be placed in the upcoming Board Meeting for ratification.
- (vi). Thus, the reference tariff proposal in respect of subject project alongwith draft SOR and performance Standard as furnished may be approved.

3.2. The other main submissions made by the SPMP in its letter dated 12 October 2020 are summarized below:

- (i). The Salient features of the project are as follows:
 - (a). The berth is located inside the impounded Dock basin of Haldia Dock Complex. The berth no 2 has a length of about 337 M (berthing face length-193 m) and a width of 15.5 m. The berth can handle panamax vessels up to 85,000 DWT with LOA up to 230 m and an average parcel size of 28,000 tonnes.
 - (b). The berth will be equipped with 2 nos Rail Mounted Mobile Harbour Crane including Grab and hopper with provision of Shore power with a capacity of 1000 TPH. For this purpose the existing berth no 2 structure has to be provided with rails over which the Mobile Harbour Crane will travel on the quay.
 - (c). The coal/coking coal unloaded by the Mobile Harbour Crane will discharge into a single dock conveyor to be located on the rear side of the main berth structure on the piles and interconnecting beams. This conveyor will be an elevated one with a rated capacity of 2000 TPH commensurate with the capacity of Mobile Harbour Cranes.
 - (d). The coal from the dock conveyor will be conveyed through an elevated conveyor system to cross over the main road behind berth and then to the yard conveyor for stacking.
 - (e). The coal from the stack yard reclaimed by stacker cum reclaimer (operating in reclaiming mode) will be conveyed to a stationary SILO.
 - (f). Two no. Stacker cum Reclaimers each having a rate capacity of 2000 TPH for stacking 2000 TPH capacity for reclaiming are planned for stock piling coal into the stack yard and then for evacuation through wagon loading (SILO).
 - (g). The coal from the stationary SILO will be loaded into railway wagons through a rapid wagon loading system in which the wagons will be moving.
 - (h). The system will have a substation for receipt and distribution of HT and LT power for operating the mechanized system consisting of two no Gantry Grab Unloaders, the belt conveyor system, two no Stacker cum Reclaimers, Rapid Wagon loading system, supporting utilities etc.,
 - (i). The estimated power requirement of about 1.8 MVA will be available from the the prospective BOT operator has to lay HT power supply cables from the
 - (j). The stack yard for transit storage of coking coal, non-coking coal will be located in the designated stack yard to be situated in the back-up area of Berth no 2. This area is the sum of the back-up area of berth no-02 used for iron ore loading facility and part of the back-up area of berth no-01.

Backup area earmarked for Berth no 2 (shown in hatching). The land earmarked for the yard purpose will have an area of about 1,45,264 sqm. However, the SILO, part of loading conveyor & jetty conveyor are outside the above area. The total area earmarked for complete project is 2,08,649 Sqm except Berth no-2 (2991.5 sqm).
 - (k). The material handling system has been designed as ship-shore transfer through Rail Mounted Mobile Harbour Crane, a conveyor system for transfer

from berth to stack yard and handling at yard through two Stacker cum Reclaimer for stacking and a conveyor to carry the material from the stack yard to rapid loading SILO and finally loading of coal from SILO into wagons in motion. The system will incorporate necessary pollution control measures.

(l). **Ship – Shore Transfer**

Considering the capital cost, operational flexibility and proven performance, it is proposed to equip the berths with two 1000 TPH Rail Mounted Mobile Harbour Crane with rail span of 13.687 M. including Grab and hopper with provision of Shore power.

It is to be noted that due to draft limitations in Haldia vessels come with part load, having discharged the top portion of the hatches at another deep draught port. Hence the quantity of coal available for the cream bite of the grab will be limited. As the hatch gets emptied, the remaining coal is to be heaped at one place by a baby dozer to be lowered into the hatch. The baby dozer moves around shifting the scattered coal into a heap sufficient for the grab to bite into and lift. This process will involve some operational time as the grab content will largely get reduced as compared to a cream bite. When a fully loaded ship is discharged, the productivity will be higher as the grabs can take bite at the top of hatch with full grab content and less lifting height as compared to part discharged vessel. Thus its average discharge rate will be high. But in a partially loaded ship, the initial lift height itself will be more as the hatch content is already reduced. For clearing the last portion, the lifting height is more and the grab content is also less. All these cumulatively reduce the average productivity.

The productivity for 2017-18, 2018-19 & 2019-20 are:

Average ship day productivity

Cargo	FY 17-18	FY 18-19	FY 19-20
Coking Coal	17,548	16,907	17,947
Non Coking Coal	18,540	17,927	19,489

As Berth no-2 will be fully Mechanized with automated equipment, hence, taking the aforesaid issues into consideration, it is proposed that an average productivity of 20,000 TPD could be considered.

(m). **Berth – Stockyard Transfer**

Keeping in mind the level of pollution that could be created due to handling by Dumper and Payloader system, it is planned to have a conveyor system. The MHCs planned will have integral hoppers, the coal unloaded will be conveyed through hopper and shuttle conveyor to an elevated jetty conveyor located on the rear side of MHCs. The jetty conveyor will transfer the material into another conveyor through which the coal will be transferred to the yard stacking conveyors and finally transferred through stacker cum reclaimers into the stack yard. The conveyor system will have a matching rated capacity of 2000 TPH.

(n). **Layout of the Stockyard**

Conceptual Layout of Stockyard :

The material received through the conveyors and the stacker cum reclaimer into the stack yard will be stacked in a geometric shaped stockpiles. The stack yard is proposed to be equipped with two no Stacker cum reclaimers. The conceptual layout of stack yard as proposed in this report will have a capacity of about 5.00 Lakh tons.

(o). **Evacuation**

It is proposed that 80% the cargo will be evacuated by rail and 20% of the cargo will be evacuated through Road. Thus about 2 to 3 rakes per day will be required for evacuation of planned annual throughput.

- (ii). Mainly Coal, Coke, Limestone and other compatible dry bulk cargoes are proposed to be handled at this facility. Based on the traffic projections, the expected future traffic of dry bulk cargo will be as under:

Projections for Dry Cargo (million tonnes)

Commodity	Actual in 2017-18	Projections by IPA		AECOM projections	
		2020-21	2025-26	2020-21	2025-26
Coking Coal	7.32	6.40	6.90	8.00	11.20
Non-coking coal	4.45	7.30	7.30	3.30	3.30
Thermal coal	2.18	2.30	2.90	1.60	2.10
Iron ore	1.57	1.30	2.30	1.00	1.30
Manganese ore and slag	1.55	1.80	2.30	2.00	2.50
Fertilisers and raw materials	0.34	0.80	1.20	1.00	1.50
Cokes	0.50	0.60	0.90	@	@
Limestone	2.08	2.10	2.80	2.00	2.80
Others Excl steel	1.44	1.80	2.60	4.00	5.20
Total Dry Cargo	21.44	24.40	29.20	22.90	29.90

In the Master plan submitted by L&T IL, it is projected a Dry Bulk Cargo (Import) as follows in FY-25 & FY-30:

Sl. No.	Commodity	Projection in FY-25 (In MMTA)	Projection in FY-30 (In MMTA)
01	Coking Coal	12.00	17.40
02	Non Coking Coal	11.30	14.10
03	Manganese Ore	1.69	2.29
04	Limestone	2.80	3.50
Total		27.79	37.29

(iii). **Framing SOR for handling Cargo**

As per Para 2.2 of the Revised Guidelines for Determination of Tariff for Projects at for that commodity in the concerned Major Port Trust under the 2008 Tariff Guidelines. In case no tariff has been fixed for that commodity at that Major Port Trust or if the highest tariff fixed for a particular commodity in the concerned major Port Trust does not represent the project proposed to be developed, then concerned Major Port Trust can propose to TAMP any other tariff fixed under 2008 Tariff guidelines in any other Major Port Trust which is representative enough for that commodity giving detailed and sufficient justification. Since no tariff fixed under upfront tariff guidelines 2008, which is representative enough for the proposed commodities / the project proposed to be developed is available, the present tariff proposal has been formulated based on the Guidelines for Determination of Tariff at Major Port, 2013.

(iv). **Calculation of Optimal Capacity**

The optimal capacity of the terminal is reckoned as 70% of the maximum capacity. The optimal capacity is the lower value of the optimal berth capacity and optimal stack yard capacity. The dwell time has been increased to 35 days considering the request of the bidder and subsequent observation that HDC has dwell time of 35 days for the year 2019-20.

(a). **Optimum Capacity of Stockyard (as per TAMP Guidelines)**

For a coal terminal TAMP guide line stipulates that the optimum yard capacity is 70% of maximum coal that could pass through the yard and is derived from the following formula.

$$\text{Optimum Yard Capacity} = (0.7 \times A \times Q \times T) \text{ Tons}$$

Where,

A - Stockpile area in sq. m

Q - Quantity that could be stacked per sq. m

T - Turnover ratio of the plot in a year

Total area of stockpiles =

(4010+4477+5687+8507+15118+12654+12133+10904+6136+6380+6832+7162 100000 sq mt.)

Quantity that could be stacked per m² = 5.2 Te

Average Dwell time of cargo= 35 days

Turnover ratio = 360/35= 10.285 days

The average Plot turnover ratio in a year would therefore be 360/35 = 10.285 days

Yard capacity (0.7 x 100000 x 5.2x10.285) = **3.744 MTPA**

(b). **Optimum Capacity of Berth (as per TAMP Guidelines)**

It has been observed earlier in this section that the average handling rate is 20,000 tonnes per day. Following TAMP Guidelines, the optimal capacity of the terminal is calculated using the following formula:

Optimal capacity

$$= 0.7 \times \frac{S1 \times P1}{100} + \frac{S2 \times P2}{100} + \frac{S3 \times P3}{100}$$

S1 - Percentage share of capacity of Cargo type 1

P1 - Handling rate of the vessel carrying Cargo type 1

S2 - Percentage share of capacity of Cargo type 2

P2 - Handling rate of the vessel carrying Cargo type 2

S1, P1, S2, P2 and so on depending on the number of different types of Cargo to be handled at the berth of the particular port.

In the present proposal, the share of Panamax vessels and Handymax vessels are considered as 80% and 20% respectively based on the current trend.

According to the formula, the optimum capacity of the new berth (where only coal will be handled), works out to

say 5.00 MTPA

Therefore, the Optimum capacity of the TERMINAL: **3.744 MTPA** (Lower of the two).

Hence the optimal capacity of the terminal is considered as 3.744 MTPA.

(v). **Capital Cost**

As already described earlier, the specification of Capital equipment has been revised. The total capital cost of the project is estimated at ₹298.26 Crores including GST. The summary break-up of the estimate is given as under:

Sl. No	Description	Amount (₹ in Crores)
A.		
	(i). Civil Cost	
1.	Revamping of the Existing Berth to accommodate the Loaders and other Machineries	2.79
2.	Civil Foundation for Conveyer Structure	5.00
3.	Civil Works for Silo System	5.00
4.	Long travel CR 120 RAIL 360 MTR	1.00
5.	Construction of New Railway Lines for Rapid Wagon Loading System	11.00
6.	Extension of existing Track Line of Stacker cum Reclaimer	20.32
7.	RCC Drain	2.00
8.	Compound Wall	1.50
9.	Land filling and compaction	0.50
10.	Office building	0.60
11.	Substation building	2.69
12.	Laterite Hard Standing of the Yard	8.10
13.	Detailed Designs & Project Supervision costs @ 2%	1.21
14.	Contingencies @ 3%	1.82
15.	GST on Civil works @ 18%	11.44
	Civil Cost including GST	74.96
	(ii). Mechanical Equipment Cost	
1.	1000 TPH Rail Mounted Mobile Harbour Crane with rail span of 13.687 M. including Grab and hopper with provision of Shore power	79.16
2.	Conveyor 2000 TPH capacity (Approx 2000 m) including transfer points	21.19
3.	Stacker cum Reclaimer Stacking-2000 TPH, Reclaiming 2000 TPH, with Boom Length-45 m	50.00
4.	SILLO and rapid Wagon Loading system with storage capacity of MINIMUM 800 MT and discharge rate of 2000 TPH	14.25
5.	Dust suppression system and Fire Fighting facilities including water supply and distribution.	7.59
6.	In motion Weigh Bridge	0.95
7.	Detailed Designs & Project Supervision costs @ 2%	3.46
8.	Contingencies @ 3%	5.19
9.	GST on Mechanical Works @ 18% [Assumed Full ITC]	0.00

Sl. No	Description	Amount (₹ in Crores)
	Mechanical Cost	181.80
	(iii). Electrical Works	12.90
1.	Electrical Power Supply and Distribution System including Substation	25.00
2.	Illumination with High Mast Lighting System	1.00
3.	Detailed Designs & Project Supervision costs @ 2%	0.52
4.	Contingencies @ 3%	0.78
5.	GST on Mechanical Works @ 18% [Assumed Full ITC]	0.00
	Electrical Cost	27.30
	Total	284.06
	(iv). Miscellaneous	
	5% on Civil Cost and Equipment Cost	14.20
	Total Capital Cost for Handling Activity (i+ii+iii+iv)	298.26
B.	Berth Hire Activity	0.00
	Total Capital Cost (A+B)	298.26

Note: Input Tax Credit can be availed on GST paid on Mechanical / Electrical costs. Hence not considered as Cap-ex and consequent Fixed assets.

(vi). **Operating Cost**

Sl. No	Particulars	Amount (₹ in Crores)
1.	Operating Cost for Cargo Handling Activity	
(a).	Hire Charge	
(i).	One High Power Locomotive (without Fuel)	2.7183
(ii).	Four Baby Dozers (All inclusive rate) - 10 shifts per vessel for 175 vessels	2.31525
(iii).	One Excavator (All Inclusive Rate)	0.48672
(iv).	One Hydra (All inclusive rate)	0.21888
(v).	One Bull Dozer (All inclusive)	0.574
(vi).	Two 10 MT Pay Loaders for road evacuation (All inclusive)	2.96352
(b).	Power Cost	6.24
	1.4 units/ tonne, Effective Levy-Rs 11.91 per KWH (Energy Charge Rs 7.15 per KWH, Demand Charge-Rs 384.00 per KVA for 1600 KVA, Govt Duty- 17.5%, Line Loss-2.6% , SPMP's Overhead Charge19.25%]	
(c).	Fuel Cost	
(i).	Locomotive	0.56
	30 ltrs per hour * Rs.75.03 per litre *2508.48 hours p.a	
(d).	Repair & Maintenance	
(i).	Civil Assets (1% on civil work)	0.79
(ii).	Mechanical & Electrical Equipment including spares (7% on equipment cost)	15.37
(e).	Insurance (1% on Gross fixed assets)	2.98
(f).	Depreciation	
(i).	Civil Work @ 3.17%	2.50

(ii).	Mechanical Work @ 6.33%	12.08
(iii).	Electrical Assets @ 9.5%	2.72
(g).	License Fee [168888 sqm bare land @28.4463 per sqm per month + 42752 sq.m hard stand & Jetty area @Rs 44.2281 per sqm per month]	
(h).	Other Expenses towards salaries and overheads (5% on gross value of assets)	14.91
	Total Operating Cost	75.47

(vii). **Calculation of Annual Revenue Requirement**

As TAMP guidelines, the Annual Revenue Requirement is the aggregate of operating cost and Return on Capital @ 16% on capital employed. The following table provides the calculations.

(a). **Revenue Requirement for Cargo Handling Activity**

(₹ in Crores)	
Estimated Revenue Requirement	Amount
(a) Operating Cost	75.47
(b) Return of Capital Employed @ 16%	47.72
Total Revenue Requirement (a) + (b)	123.19

(b). **Apportionment of Annual Revenue Requirement (Cargo Handling Activity):**

The TAMP guidelines, prescribed that the Annual Revenue Requirement (ARR) of Cargo handling activity be divided into three categories i.e. Cargo handling charges, Storage Charges and Miscellaneous charges at @ 98%, 1% and 1% respectively. Accordingly, the ARR is further apportioned as under:

(₹ in Crores)		
Activity		Amount
a) Cargo Handling Charges	98%	120.73
b) Storage Charges	1%	1.23
c) Miscellaneous Charges	1%	1.23
Total Revenue Requirement (a) + (b) +(c)	100%	123.19

3.3. Based on the Optimum capacity of the cargo to be handled at the proposed project facilities and the annual revenue requirement, the tariff chargeable per ton is calculated. The SPMP has calculated proposed tariff and has sought approval for the following:

(i). **Cargo Handling Charges.**

The share of Overseas and Coastal movements for Dry Bulk Cargo (Coal, Limestone etc.) is considered to be around 90% and 10% respectively.

(a). **Cargo Handling Charges**

Sl. No	Commodity	Unit Rate in ₹ per Metric Tonne or part thereof	
		Foreign	Coastal
1.	All types of Coal / Coke, Limestone and other Dry Bulk Cargoes (Other than	335.90	201.54

	Thermal Coal, Iron Ore & Iron Ore Pellets).		
2.	Thermal Coal, Iron Ore & Iron Ore Pellets.	335.90	335.90

(b). **Storage Charges**

The Annual Requirement towards storage charges is Rs.1.23 Crores. Earlier free time was 10 days. Many bidders requested that at Haldia the dwell time is more than 35 days. Accordingly they requested for increase of free period from 25-30 days. Also upfront tariff guideline provides free storage period of 25 days in case of mechanical coal terminal. Accordingly, free period has been amended to 25 days in place of 10 days considered earlier. It is expected that only 30% of the cargo may be stored beyond the free days of 25 days. Accordingly, the Storage charges for the cargo stored in the stack yard beyond the free period allowed are proposed as under:

Working for calculation of storage charges (Berth No.2 Erstwhile Berth No. 3)]						
Sl. No.	Particulars	Free days	1st slab	2nd slab	3rd slab	Total
1	Optimum Capacity	37,44,000				
2	Days in each slab	25	5	5		
3	%age of cargo in each slab	70%	20%	10%		
4	Quantity in each slab	26,20,800	7,48,800	3,74,400		
6	50% time is taken in each slab on an average)		18,72,000	46,80,000		65,52,000
5	Weights assigned		1.00	1.50		
	Weighted Quantity in each slab (50% time taken in each slab on an average)		18,72,000	70,20,000		88,92,000
7	Revenue requirement					1.23 (₹ in Crores)
8	Average Tariff per MT ton per day					1.39
9	Tariff for each slab		1.39	2.08	2.77	

Hence, the proposed storage charges for the cargo stored in the stack yard beyond the free period are as follows:

Description	Rate in ₹ per MT per day or part thereof
Free period	25 days
First five days after expiry of free period	1.39
6th day to 10th day after expiry of free period	2.08
From 11th day onwards	2.77

(c). **Miscellaneous Charges**

The Annual Requirement towards Miscellaneous charges is ₹1.23 Crores. Accordingly, composite charge for all the miscellaneous services such as sweeping, weighment of wagons/trucks, receiving/delivery of cargo is proposed to be charged at ₹3.29 per tonne of all Dry Bulk Cargo.

Sr. no.	Particulars	₹ in Crores
i.	Revenue Requirement (a)	1.23
ii.	Capacity of the Terminal (lakh tons per annum) (b)	37.44
	Misc charges per tonne (a) / (b) for all dry bulk cargo	3.29

3.4. The Performance Standards proposed by the SPMP are as follows:

- (i). The parameter deals with the productivity of the terminal (Gross Berth Output) for different types of cargo.
- (ii). In case of coal/coke/limestone/other dry bulk cargo, the capability of the terminal (mechanisation, method of handling) and parcel size will determine the Gross Berth Output. Higher terminal capability and greater parcel size will lead to high productivity.
- (iii). The Gross Berth Output shall be calculated by considering the total cargo unloaded from the ships during a month in the terminal divided by the net working hours of all the ships in that month at the terminal and multiplying the quotient with 24.
- (iv). The net working hours of the ships shall be determined by subtracting 4 hours per ship from the total hours spent by all the ships at that terminal in the month in question. While calculating the hours spent by the ship at the terminal, the time spent by the ship at the terminal beyond ships declaring its readiness to sail shall be ignored. Further, the vessels which complete her cargo work in a month shall be considered for the calculation of the Gross Berth productivity of the month.
- (v). The norms of Gross Berth Output for Coal/ Coke, Limestone and other Dry Bulk Cargoes are as follows:
 - Gross Berth Output for the Panamax Vessels or higher size vessel 20,000 MT/Day
 - Gross Berth Output for the Handymax/Supramax Vessels 20,000 MT/Day

4. In accordance with the consultation procedure prescribed, a copy of the SPMP proposal dated 12 October 2020 was forwarded to Users / User Organizations / Major Coal Importers / Iron Ore Exporters / Prospective Bidders (as per the list furnished by SPMP) vide our letters dated 23 October 2020, 04 November 2020 and 10 November 2020, seeking their comments. In response, some of the prospective bidders and users have furnished their comments. These comments were forwarded to SPMP for its comments. The SPMP has responded vide its email dated 18 December 2020.

5. On a preliminary scrutiny of the proposal, it was seen that additional information/ clarification was required from SPMP on some points. Accordingly, additional information / clarification was sought from SPMP vide letter dated 12 November 2020. The SPMP vide its email dated 18 December 2020 has responded. The information sought from SPMP and the reply of SPMP thereon are tabulated below:

Sl. No.	Information/ Clarification sought by TAMP	Reply of SPMP
A.	General:	
(i).	The SPMP to forward a copy of its Board Resolution approving the proposal under reference.	The confirmed board proceedings have been forwarded to TAMP vide email dated 26.11.2020. (The SPMP vide its email dated 26 November 2020 has forwarded the approval of the Board of Trustees of SPMP for the subject proposal.)
(ii).	The proposed facility as per draft Scale of Rates	

Sl. No.	Information/ Clarification sought by TAMP	Reply of SPMP												
	is envisaged to handle Coal, Coke, Limestone, other Dry bulk cargoes and Thermal coal, Iron ore & Iron Ore pellets. In this backdrop, (a). The reason for formulating the proposal based on the norms prescribed for a Coal terminal instead of adopting the norms prescribed for a Multipurpose project to be explained. (b). The share of each type of cargo envisaged to be handled at the proposed facility to be indicated.	(a). Guideline for coal terminal has been adopted since the berth is predominantly proposed for handling coal cargo which is based on the traffic estimated in the feasibility report. Further the method of handling of Limestone & other dry bulk cargo is almost similar to coking coal. (b). 80% cargo is expected to be Coking Coal / Non-Coking Coal, 10% Limestone and other Flux, balance 10% other dry bulk cargo.												
(iii).	On the ground of uncertainty on import of coal cargo, the SPMP has sought to propose handling of cargo like coke, limestone and other dry bulk cargo, Thermal coal, Iron ore & Iron Ore pellets. In this regard, the SPMP to consider handling of any other compatible cargo that can be handled at the facility at the time of fixation of Reference tariff on upfront basis and before invitation of bids. The SPMP to also note that the 2008/ 2013 Guidelines do not provide for fixation of tariff for additional cargo/ service or review of reference tariff and intervention by TAMP in a post bid scenario except for the Wholesale Price Index (WPI) indexation.	In 2019-20, around 17.5 million tonnes of Coal has been handled at HDC and the volume is likely to be increased in the coming years due to upgradation of Steel & Power Industries. In addition, around 9.7 million tonnes of other cargo such as Limestone, Manganese Ore, Coke, etc. were handled in the last FY. Although the instant berth has been considered for handling of Coal predominantly, yet provision has been kept for handling the Dry Bulk Cargo and the indicative share of the cargo to be handled has been provided. No cargo other than those already mentioned is envisaged as compatible cargo for handling at the proposed facility to avoid contamination.												
B.	Optimal capacity:													
(i).	Quay capacity: (a). The basis to consider the percentage share of Panamax vessels and Handymax vessels at 80:20 to be explained. (b). The actual percentage share of Panamax vessels and Handymax vessels handling coal, coke, limestone and other dry bulk cargo, Thermal coal, Iron ore & Iron Ore pellets that have visited HDC in SPMP in the past three years. (c). To confirm that all the dry bulk cargoes viz., coal/ coke, limestone and other dry bulk envisaged to be handled at the facility would have the same productivity level of 20,000 tonnes per day.	(a). During 2017-18, 2018-19 & 2019-20 in respect of import coal, average 79% cargo was carried by Panamax vessels (1060 nos.) while 21% cargo was carried by Handymax vessels (282 nos). Accordingly, the percentage share has been considered as 80% and 20% as Panamax & Handymax respectively. (b). During Last 3 years in respect of import coal, the number of Panamax Vessels and Handimax Vessels visited HDC is as follows : <table border="1"> <thead> <tr> <th>Financial Year</th><th>Panamax Vessel</th><th>Handimax Vessel</th></tr> </thead> <tbody> <tr> <td>FY 2019-20</td><td>360</td><td>79</td></tr> <tr> <td>FY 2018-19</td><td>379</td><td>110</td></tr> <tr> <td>FY 2017-18</td><td>321</td><td>93</td></tr> </tbody> </table> (c). It is confirmed that the coal, coke, thermal coal, Limestone and Iron Ore Fines which are envisaged for handling through the proposed facility in berth no 2 will have the productivity level of 20,000 TPD (d). The proposed facility is envisaged to predominantly handle coal cargo and therefore the	Financial Year	Panamax Vessel	Handimax Vessel	FY 2019-20	360	79	FY 2018-19	379	110	FY 2017-18	321	93
Financial Year	Panamax Vessel	Handimax Vessel												
FY 2019-20	360	79												
FY 2018-19	379	110												
FY 2017-18	321	93												

Sl. No.	Information/ Clarification sought by TAMP	Reply of SPMP																
	(d). Though the proposed facility is envisaged to handle Coal, Coke, Limestone and other Dry bulk cargoes, the SPMP has calculated the Quay Capacity of the Berth by considering that only coal will be handled. The reason for the said presumption to be explained. (e). The actual productivity achieved in HDC in respect of coke, limestone and other dry bulk cargo in the past three years to be furnished. (f). To confirm that the operator of the proposed facility would not be allowed to deploy higher capacity Rail mounted Mobile Harbour Crane at the facility other than the 1000 TPH capacity Rail mounted Mobile Harbour Crane proposed to be deployed at the facility.	quay capacity of the berth is calculated considering only coal. (e). The actual productivity is as follows <table><tr><th>Cargo</th><th>2017-18</th><th>2018-19</th><th>2019-20</th></tr><tr><td>Coal</td><td>19536</td><td>17510</td><td>19539</td></tr><tr><td>Lime Stone</td><td>20923</td><td>19166</td><td>18853</td></tr><tr><td>Other dry bulk</td><td>18531</td><td>16987</td><td>15464</td></tr></table> (f). The proposed Rail mounted Mobile Harbour Crane of 1000 TPH is the minimum capacity to be deployed by the operator and the operator could deploy a higher capacity at his discretion.	Cargo	2017-18	2018-19	2019-20	Coal	19536	17510	19539	Lime Stone	20923	19166	18853	Other dry bulk	18531	16987	15464
Cargo	2017-18	2018-19	2019-20															
Coal	19536	17510	19539															
Lime Stone	20923	19166	18853															
Other dry bulk	18531	16987	15464															
(ii).	Yard capacity: (a). From the calculation of stockyard capacity, it is seen that an area of 100000 square metres of land has been proposed to be used for stacking cargo at the proposed facility. The total area earmarked for the Project is at 208649 sq.m. except area relating to Berth No. 2 (2991.5 sq. mtr) What ancillary facilities are envisaged in the remaining 52% of the area. (b). From the workings furnished by SPMP, it is seen that there is a wide gap between the yard capacity and the quay capacity. Since yard capacity is reported to be a constraint, the SPMP is requested to look into the profile of the equipment and the Conveyor system and explore deploying a lower capacity handling equipment and Conveyor system, if yard capacity cannot be improved so as to narrow down the gap between the yard and the quay capacity. (c). The actual stack height achieved in HDC in respect of coal, coke, limestone and other dry bulk cargo in the past three years to be furnished. (d). To clarify whether the stack height of 5.2 tonnes per sq.m considered by the SPMP for stockyard capacity calculation, would be applicable in respect of all the cargoes envisaged to be handled at the proposed facility. (e). The basis for considering an average dwell time of 35 days for yard capacity calculation to be explained.	(a). Out of the total land area of 2,08,649 sq.m, only an area of 1,00,000 sq.m is meant for cargo storage yard. Balance area has been earmarked for SILO, Railway siding, Conveyors, stacker cum reclaimer including track line, structural building, substation and Structural /Civil etc. (b). There is a gap between Quay capacity(5.11 MMTPA) and the yard capacity(3.744 MMTPA) on account of limitation in yard capacity. However, the equipment capacities has been planned to assure a guaranteed minimum unloading rate of 20,000 TPD and any further downsizing of equipment will seriously impair the productivity of 20,000 TPD. (c). No such data is maintained by HDC. (d). Stacking capacity considered as 5.2 Ton/sqm. for calculating the stockyard capacity for cargo share as per SI No 1 .(ii). (b) above. (e). The dwell time of 35 days is considered based on the current dwell time for the cargo stored in the HDC stockyard. (f). The actual average dwell time in HDC in respect of coal, coke, limestone and other dry bulk cargo in the past three years is furnished by SPMP.																

Sl. No.	Information/ Clarification sought by TAMP	Reply of SPMP
	(f). The actual average dwell time in HDC in respect of coal, coke, limestone and other dry bulk cargo in the past three years to be furnished.	(The SPMP has indicated that the average dwell time of import dry bulk cargo at HDC during the year 2019-20 is 36.86 days).
C.	Capital cost:	
(i).	The basis for considering contingencies @ 3%, project supervision @ 2%, GST on civil works @ 18% of the civil cost and mechanical cost in the capital cost estimates of cargo handling activity to be furnished.	(i). It is procedure in estimation to consider 3% for contingency and 2% for detailed Designs & Project Supervision costs to accommodate preliminary expenses, tendering and Project Management Consultancy etc. As has been stated in the Tariff application that the estimation of Capital costs, Input Tax Credit can be availed on GST paid on Mechanical / Electrical costs. Hence not considered as Capex and consequent Fixed assets. However, GST input tax credit is not available for Civil assets and hence the same is considered as Cap-ex.
(ii).	To confirm that the base rate considered to estimate the civil capital costs as well as cost of each of the equipment considered, reflect the prevailing/ current market rates.	(ii). The base rate considered for preparation of the estimate considering the present market rate of equipment and prevailing SoR for civil cost.
(iii).	The documentary evidence furnished by the SPMP in support of the capital cost estimates do not match with the cost of the equipment considered by SPMP in the workings. The SPMP to, therefore, furnish documentary evidence in support of the cost of each of the Equipment viz., Rail mounted Mobile Harbour Crane, Conveyor system, Stacker cum Reclaimer, SILO, Rapid Wagon Loading System and In-motion weigh bridge. The workings to arrive at the cost of each of the Equipment as considered in the estimates also to be furnished.	(iii). The cost estimate of equipment has been prepared based on budgetary offer from the manufacturer. The documentary evidence has been already been forwarded along with tariff application.
(iv).	The basis for the lumpsum considered for Dust suppression, fire fighting facilities, water supply & distribution, Electrical power supply & distribution and Illumination, to be furnished justifying the cost considered in the estimates.	(iv). The cost estimate of Dust suppression, firefighting facilities, water supply & distribution has been prepared based on last estimate which was as per the budgetary offer from the manufacturer with 2% escalation to arrive at the current estimate. However, the estimate for Electrical power supply & distribution and Illumination has been prepared as per the budgetary offer from the existing contractor of HDC. [The SPMP has furnished the documentary evidence.]
(v).	The successful bidder is expected to lay HT -station to the proposed sub-station of Berth No. 2. The SPMP to confirm that the cost of laying HT power supply cables has been captured in the capital cost estimates.	(v). It is confirmed that the cost of laying HT power supply cables has been captured in the capital cost estimates under the Electrical Power Supply and Distribution System including Substation.
D.	Operating Costs:	
(i).	Documentary evidence in support of unit cost of power at ₹11.91 per unit, to be furnished.	(i). The SPMP has furnished the documentary evidence in support of unit cost of power.
(ii).	The hiring cost in respect of Locomotive, Baby Dozers, Excavator, Hydra, Bull Dozer and Pay loaders are reported to be as per the existing order of HDC. In this regard,	

Sl. No.	Information/ Clarification sought by TAMP	Reply of SPMP																
	(a). The documentary evidence in support of hiring charges of each of the above listed equipment to be furnished. (b). The number of hours/ shifts for which Locomotive and Baby Dozer are proposed to be deployed also to be indicated. (c). The basis for considering different days of operation of Excavator (360 days), Hydra (360 days), Bull Dozer (350 days) and Pay Loader (300 days) to be furnished. The reason for not considering the days of operation at the level of optimum utilisation days of the berth (70% x 365 days = 256 days) to be explained.	(a). The documentary evidence in support of hiring cost in respect of Locomotive, Baby Dozers, Excavator, Hydra, Bull Dozer and Pay loaders is furnished. (b). The Locomotive would be hired on daily basis and the 04 nos of Baby dozer is envisaged to be deployed for cumulative period of 10 shifts/ vessel as per requirement. (c). Since hydra, excavator and bull dozers may be required for daily maintenance and operations at stackyard, they have been considered for almost round the year operations. However, the payloader is proposed for cargo evacuation through road, therefore only 300 days for deployment of payloader on account of road evacuation has been considered.																
(iii).	With regard to the calculation of fuel cost in respect of loco, the SPMP to clarify/ furnish the following: (a). Basis for considering fuel consumption of 30 liters per hour. (b). Basis to considering the carrying capacity of 1 rake at 4000 tonnes. (c). The time of 2.85 hours considered for loading each rake to be substantiated by actual data of past 3 years. (d). 0.5 hours of additional time considered for placement also to be substantiated by actual data of past 3 years.	(a). Consumption of fuel by locomotive has been considered as 30 ltr per hour as per present consumption of fuel in the loco hired at HDC. (b). One standard railway rake will have 59 wagons with a carrying capacity of 68 tons per wagon. Due to mix of railway wagons that may come to the port, per rake capacity is considered as 4000 tons. (c). Presently there is no silo-loading facility at HDC. Therefore, documentary evidence regarding average time required for each rake loading is not available. (d). The proposed siding for loading facility is in proximity to south end of BH Yard reception grid and departure grid. Therefore around 20 mins to 30 mins will be required for hauling full rake to the siding from BH Yard.																
E.	Annual Revenue Requirement and Handling rates:																	
(i).	The ratio of foreign and coastal cargo considered by SPMP to arrive at the proposed handling rates to be furnished. The basis for adopting the said ratio also to be furnished.	(i). The 90% and 10% ratio of foreign and coastal cargo is considered to arrive at the handling rates.																
(ii).	The actual ratio of foreign and coastal cargo at HDC for the past 3 years to be furnished for each of the cargo envisaged to be handled at the proposed facility.	(ii). The actual ratio is tabulated hereby: <table><tr><th>Financial Year</th><th>Foreign (MT)</th><th>Coastal (MT)</th><th>Ratio</th></tr><tr><td>2017-18</td><td>1,82,33,372</td><td>45,54,372</td><td>4:1</td></tr><tr><td>2018-19</td><td>2,19,23,586</td><td>46,34,058</td><td>5:1</td></tr><tr><td>2019-20</td><td>2,37,35,330</td><td>35,48,341</td><td>7:1</td></tr></table>	Financial Year	Foreign (MT)	Coastal (MT)	Ratio	2017-18	1,82,33,372	45,54,372	4:1	2018-19	2,19,23,586	46,34,058	5:1	2019-20	2,37,35,330	35,48,341	7:1
Financial Year	Foreign (MT)	Coastal (MT)	Ratio															
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2019-20	2,37,35,330	35,48,341	7:1															

6. In view of the outbreak of COVID 19 and in pursuance of the Ministry of Shipping (MOS) letter No. 11053/30/2020-Coord. dated 16 April 2020 to hold virtual meetings, a joint hearing on the case in reference was held on 24 November 2020 through Video Conferencing. At the joint hearing, SPMP made a brief power point presentation of its proposal. The SPMP and the users/ prospective bidders have made their submissions during the joint hearing.

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

8. With reference to the totality of information furnished by the SPMP the following position emerges:

- (i). Based on the proposal filed by Syama Prasad Mookherjee Port (SPMP) in January 2019, this Authority vide its Order dated 29 March 2019 has approved Reference Tariff on PPP mode related to Mechanization of Berth No. 2 (erstwhile Berth No. 3) of Haldia Dock Complex. The said order was notified in the Gazette of India vide G. No. 200 dated 07 June 2019. However, owing to poor response for the project during the bidding stage, the port has discharged the RFQ and has restructured the project, with revised cost estimates and revised technical specification based on the subsequent discussions that the port had with the prospective bidders and other port users. In this backdrop, the SPMP has come up with a revised proposal for fixing reference tariff for the project

concession period of 30 years at HDC by following principles of upfront tariff guidelines, 2008. The proposal of the port has approval of its Board of Trustees.

- (ii). The SPMP has filed its proposal in October 2020. The SPMP has furnished in December 2020 additional information/ clarification sought by us. The said proposal of the port alongwith the information/ clarification furnished by SPMP is considered in the analysis.
- (iii). The proposed mechanized berth is envisaged to primarily handle all types of Import Coal. However, considering the uncertainties with respect of Coal imports and to ensure optimum utilization of the facility and to provide flexibility to the terminal operator, the SPMP has proposed handling of Coke, Limestone, Iron Ore Pellets and other Dry Bulk Cargoes also at the facility. The SPMP has indicated that about 80% cargo to be handled at the proposed berth would be Coking Coal / Non-Coking Coal, 10% Limestone and other Flux and the balance 10% would be other dry bulk cargo. The SPMP has confirmed that the method and rate of handling of Limestone and other dry bulk cargo is almost similar to coking coal.

In this regard, it is relevant to mention here that once an upfront/ reference tariff is fixed by this Authority for a set of cargo items following the Upfront Tariff Guidelines of 2008 or the Reference Tariff Guidelines of 2013, the said Guidelines do not provide for fixation of tariff for additional cargo/ service or review of reference tariff in a post bid scenario except for the annual indexation of tariff with reference to the variation in Wholesale Price Index (WPI). In such a scenario, the proposal of the port for envisaging handling of limestone, iron ore, iron ore pellets and other dry bulk cargo also in addition to the coal/ coke, on the ground of uncertainty on import of coal cargo is a welcome step. Also, precedence is available at the Paradip Port Trust (PPT), where the PPT, to bring in efficiency and to ensure optimum utilisation of its facilities, at times, handles thermal coal at its Iron Ore Handling Plant (IOHP) and also handles Iron Ore Pellets/ Iron Ore Fines/ Other Dry Bulk Cargo at its Mechanized Coal Handling Plant (MCHP).

Thus, the proposal of the SPMP to consider handling of any other compatible cargo at the proposed facility in addition to the handling of coal/ coke, at this stage itself of fixing of Reference tariff and before invitation of bids, is taken into account.

- (iv). As stated earlier, the proposed facility will predominantly handle coal/ coke (80%) and the other dry bulk cargo proposed to be handled at the facility would be 20%. Hence, for determination of tariff for the cargo to be handled at the proposed facility, the SPMP has adopted the Upfront tariff Guidelines as applicable for a coal terminal. A multipurpose cargo berth envisages handling of both dry bulk cargo and break bulk cargo whereas the proposed mechanized berth is envisaged to handle only dry bulk cargo. Moreover, the SPMP has confirmed that the method and rate of handling of other dry bulk cargo is almost similar to coking coal. Therefore, the approach of the port in adoption of the Upfront tariff Guidelines as applicable for a coal terminal, instead of the Upfront tariff Guidelines for a Multipurpose berth, for fixation of Reference tariff for the proposed facility, is seen to be apt.

(v). Optimal Capacity:

(a). Optimal Quay Capacity:

- (i). The SPMP proposal envisages handling of Panamax vessels and Handymax vessels at the proposed facility with the deployment of two Rail Mounted Mobile Harbour Crane including Grab and Hoppers. Based on the average productivity achieved during the past years with HMCs at other berths, the SPMP has considered a similar productivity of 20000 tonnes per day in respect of both Panamax Vessels and Handymax Vessels.

The Upfront tariff fixation guidelines of 2008 for the Coal Terminal prescribes unloading norms of 35000 tonnes per day in respect of Panamax vessel and 15000 tonnes per day in respect of Handymax Vessels. Though the Guidelines prescribe different productivity levels for Panamax vessels and Handymax vessels, the SPMP has considered a uniform handling rate of 20000 tonnes per day for the Panamax Vessels and Handymax Vessels. In view of the lock gate and draft constraints at HDC, the HDC is mostly the second port of call with partially loaded vessels and hence the Panamax/ Handymax vessels arriving at HDC generally bring bottom cargo. In view of this position, the average actual productivity achieved at the MHC berths of HDC for coal for both Handymax and Panamax Vessels is reported to be similar.

The SPMP has also confirmed that the coal and its variants and all other dry bulk cargo envisaged for handling through the proposed facility in berth no 3 will have the same productivity level of 20000 tonnes per day.

Considering that the productivity of 20000 tonnes per day for both Handymax and Panamax Vessels as considered by SPMP is based on the past actuals, this Authority is inclined to consider a productivity of 20000 tonnes per day for both Handymax and Panamax Vessels.

It is noteworthy that recognizing the peculiarity of the situation at SPMP (of low draft), this Authority has in the past, while determining the upfront/ reference tariff at SPMP, has considered the productivity level of a MHC at 10000 MT per day. Considering the deployment of 2 no. of Rail Mounted Mobile Harbour Crane including Grab and

Hoppers at the proposed facility, consideration of productivity of 20000 MT per day appears to be in order.

- (ii). The ratio of Panamax and Handymax Vessels has been considered by SPMP at 70:30, based on the actual ratio of Panamax and Handymax Vessels achieved during the last 3 years i.e. 2017-18 to 2019-20.
 - (iii). Considering the ship day output at 20000 tonnes per day for both Panamax vessels and Handymax vessels at 70% utilisation, the optimal quay capacity of the proposed facility works out to 5.11 million tonnes per annum, as estimated by the port.
- (b). Optimal Yard Capacity:
- (i). The upfront tariff guidelines stipulate that the yard capacity is to be assessed for the area of the yard made available by the port for development. In its proposal, the port envisages allotment of an area of 2,08,649 Sqm of land except Berth no-2 (2991.5 sqm) to the proposed BOT operator. Out of the said area, 1,00,000 sq.m of land has been earmarked for storage yard and the balance area has been earmarked for SILO, Railway siding, Conveyors, stacker cum reclaimer including track line, structural building, substation and Structural /Civil etc.
- The norm for estimation of yard capacity prescribed for mechanized coal terminals provides for a cushion of around 50%, to meet the requirement of area for ancillary facilities. That being so, the balance 50% is required to be considered for stacking purpose. Against this position, the SPMP has considered about 48% of the total area of land i.e. 1,00,000 sqm for the purpose of stacking of cargo, in the yard capacity calculation.
- None of the users/ prospective bidders have objected to the proposed arrangement. It is also not unreasonable to assume that the port would have done due diligence on this aspect. The judgment of the port in this regard is, therefore, relied upon.
- (ii). The guidelines for upfront tariff setting prescribe the stacking factor norm at 3 tonnes per square metre for stacking coal. The SPMP has considered the stacking factor at 5.2 tonnes per square metre. Since the proposed stack height is as per the Feasibility Report, this Authority relies upon the Quantity that could be stacked per sq.m of area at 5.2 tonnes, as proposed by the SPMP.
 - (iii). The norm for plot turnover for a coal terminal prescribed in the guidelines is 12, based on the dwell time of 30 days. Considering the dwell time of 35 days based on the request of the bidder and current dwell time for the cargo stored in the HDC stockyard, the SPMP has arrived at the plot turnover ratio at 10.285 (360 days /35 days = 10.285)
 - (iv). Based on the parameters as considered by SPMP as discussed above, the optimal yard capacity of the facility works out to 3.744 million tonnes per annum at 70% utilization, as estimated by the Port.
- (c). As per the Guidelines, the lower amongst the optimal quay capacity and yard capacity is to be considered as the optimal capacity of the facility. In the case in reference, the quay capacity has been assessed at 5.11 million tonnes per

annum and the yard capacity has been assessed at 3.744 million tonnes per annum. Accordingly, the optimal capacity of the proposed facility would be 3.744 million tonnes per annum, being the lower amongst the optimal quay capacity and yard capacity.

In this connection, it is noticed that there is a wide gap between the yard capacity and the quay capacity. Thus, the SPMP was specifically requested to look into the profile of the equipment and the Conveyor system and explore deploying a lower capacity handling equipment and Conveyor system, if yard capacity cannot be improved so as to narrow down the gap between the yard and the quay capacity. In this regard, the SPMP has stated that there is limitation in the yard area available. Also, the port has reported to have planned the equipment capacities to assure a guaranteed minimum unloading rate of 20000 tonnes per day and that any downsizing of equipment will seriously impair the speedy handling of vessel which is one of the objectives of mechanization.

Based on the justification furnished by the port, this Authority considers the optimal capacity of the proposed facility at 3.744 million tonnes per annum, being the lower amongst the optimal quay capacity and yard capacity.

(vi). Capital Cost:

(a). The project envisages unloading of Coal/ Coke, limestone, iron ore, iron ore pellets and other dry bulk cargo in the import cycle, in a fully mechanized manner from the ship to the yard, without any manual intervention. Thus, the civil works and the profile of equipment has been estimated by the SPMP to enable mechanized handling of cargo.

(b). The capital cost as estimated by the SPMP in its proposal for the handling activity is ₹298.26 crores of which ₹ 74.96 crores is towards civil capital costs, ₹181.80 crores is towards mechanical and equipment capital costs, ₹27.30 crores is towards electrical works and ₹14.20 crores is towards Miscellaneous capital costs.

(c). Civil Cost:

The capital civil costs has been estimated by the SPMP to the tune of ₹74.96 crores. The upfront tariff guidelines broadly indicate the civil works involved for a coal terminal and require the port to estimate civil cost. The items of civil works as considered by SPMP generally adhere to normative list of civil works as stipulated in the guidelines for the coal terminal. The SPMP has confirmed that the estimate of Civil works have been prepared based on existing/ prevailing market/ contract rate of HDC. As per Clause 4.1 of 2008 Guidelines, civil cost is to be considered as per the estimates given by the port. In view of the above said confirmation given by the SPMP, the civil cost estimates as furnished by the SPMP are relied upon.

(d). Equipment Cost:

(i). The Equipment cost of ₹181.80 crores as estimated by the Port is towards 1000 TPH Rail Mounted Mobile Harbour Crane including Grab and Hoppers, Conveyor 2000 TPH capacity (Approx 2200 m), Stacker cum Reclaimer, Silo, Dust suppression system and Fire Fighting facilities, In motion Weigh Bridge, Detailed Designs & Project Supervision costs @ 2% and Contingencies @ 3%. Further, since Input Tax Credit can be availed on GST paid on Mechanical/ Electrical

costs, as reported by the port the GST component has not been considered by the SPMP as part of capital cost.

- (ii). In addition to the above, the SPMP has envisaged to deploy some equipment on hire basis viz., 1 no. of High Power Locomotive, 4 nos. of Baby Dozers, 1 no. of Excavator, 1 no. of Hydra, 1 no. of Bull Dozer and 2 nos. of 10 MT Pay Loaders for road evacuation.
 - (iii). The coal/ coking coal unloaded by 2 nos. of rail mounted Mobile Harbour Crane including Grab and Hoppers will be discharged into a single dock elevated conveyor. The coal from the dock conveyor will be conveyed to the yard conveyor for stacking. The coal from the stack yard reclaimed by stacker cum reclaimer will be conveyed to a stationary silo. The coal from the stationary silo will be loaded into railway wagons through a rapid wagon loading system in which the wagons will be moving. 80% the cargo is envisaged to be evacuated by rail and 20% of the cargo will be evacuated through Road. The equipment proposed to be deployed by the SPMP is seen to be in sync with the methodology of handling of cargo as envisaged in the Feasibility Report submitted by SPMP.
 - (iv). With regard to deploying of equipment on hire basis, the port is of the view that if the BOT operator owns the above equipment, the idling cost of equipment and manpower will be loaded in the estimates of the capital cost and that considering hiring of the equipment will make the estimates more realistic. The judgment of the port in this regard is relied upon.
 - (v). Given that none of the prospective bidders nor the users have raised any other pointed objection to the proposed equipping plan, this Authority is inclined to consider the equipping plan as proposed by the port, which is based on the Feasibility Report.
- (e). Electrical works:
- The capital cost towards Electrical Power supply and distribution System including substation, Illumination including High mast lighting, Detailed Designs & Project Supervision costs @ 2% and Contingencies @ 3%, has been considered by SPMP.
- (f). With regard to considering contingencies @ 3% and project supervision @ 2%, the SPMP is of the view that it is the normal practice for estimation to accommodate preliminary expenses, tendering, Miscellaneous works and Project Management Consultancy etc.
 - (g). The estimates of various equipment and electrical works is generally seen to be in line with the Feasibility Report. Thus, the capital cost estimates as furnished by the SPMP is relied upon.
 - (h). The miscellaneous capital cost is estimated at 5% on civil and equipment cost which is as per the norm prescribed in the guidelines for coal terminal.
- (e). The Sarat Chatterjee & Co., has suggested higher capital cost in the range of ₹350 to 360 Crores for the project on various capital items. When the suggestion was shared with the port, the port has contended that the estimates require no modification. Clause 4.1 of 2008 Guidelines requires this Authority to consider the capital cost as estimated by the port. Hence, the capital cost as estimated by the port is considered in this analysis.

(vii). Return on capital employed is calculated at 16% of the estimated capital cost as per the norm prescribed in the guidelines.

(viii). Operating Cost:

(a). Hire Cost:

(i). As stated earlier, some equipment has been proposed to be deployed on hire at the proposed facility. Accordingly, the hire cost in respect of 1 no. of Locomotive, 4 nos. of Baby dozers, 1 no. of Excavator, 1 no. of Hydra, 1 no. of Bull Dozer, 2 nos. of 10 MT Pay loaders has been considered by SPMP, as part of the operating cost.

(ii). The hire cost of the locomotive has been considered by SPMP at ₹2.72 hire charges of ₹75,509 per day and considering 350 days per annum. The hire charges is exclusive of fuel cost. Hence, the fuel cost has been estimated separately, as discussed in the following paragraph. The hire cost estimated by SPMP for a period of 12 months is considered in this analysis.

(iii). The hire cost of the Baby Dozers has been considered at an all-inclusive cost of ₹13230/- per shift. In spite of specific request, the SPMP has not furnished the documentary evidence in support of the hire charge of Baby Dozer. The hire cost considered by the port is relied upon.

Considering the optimal capacity at 3.744 million metric tonnes per annum and the average parcel size of the vessel at 28000 tonnes, the SPMP has determined that 175 vessels will be handled at the facility. Since the baby dozers would be required to aggregate the cargo, the port has considered that the 4 nos. of baby dozers would be aggregately deployed for 10 shifts per vessel. It is the judgment of the port that 175 Vessels would be handled at the facility. The workings given by SPMP is relied upon.

(iv). The hire cost of the Excavator has been considered by SPMP at ₹1690/- per hour, based on the Work Order dated 19 June 2020 as issued by the SPMP to a Contractor. The hire charges is an all-inclusive cost. The number of hours of deployment of Excavator has been considered for 8 hours per day for 360 days. The judgment of the port in this regard, is relied upon.

(v). The hire cost of the Hydra has been considered by SPMP at ₹760/- per hour, based on the Work Order dated 19 June 2020 as issued by the SPMP to a Contractor. The hire charges is an all-inclusive cost. The number of hours of deployment of Hydra has been considered for 8 hours per day for 360 days. The judgment of the port in this regard, is relied upon.

(vi). The hire cost of the Bull Dozer has been considered by SPMP at ₹2050/- per hour based on the Work Order dated 19 June 2020 as issued by the SPMP to a Contractor. The hire charges is an all-inclusive cost. The number of hours of deployment of Hydra has been considered for 8 hours per day for 350 days. The judgment of the port in this regard, is relied upon.

- (vii). The hire cost of the 10 MT Pay loaders to be deployed for road evacuation have been considered at an all-inclusive cost of ₹24696/- per shift per loader. This is seen to be as per the hire cost considered in the Order no. TAMP/41/2018-KOPT in March 2019 and hence considered in this analysis.

The hire cost has been worked out by the port by considering deployment of 2 number of pay loaders for 2 shifts per day (road evacuation is not envisaged at night) for 300 days per annum. The judgment of the port in this regard, is relied upon.

- (b). Power Cost.

The consumption of power to the tune of 1.4 units per tonne is seen to be as per the norm prescribed in the Upfront Guidelines. The per unit cost of power at ₹11.91 per unit as considered by SPMP is supported by documentary evidence.

- (c). Fuel Cost:

- (i). Locomotive:

The SPMP has arrived the fuel cost considering 30 litres per hour at the rate of ₹75509.00 per day as per HDC's current work order with the prevailing cost per litre of ₹ 75.03 at Haldia. For handling of 80% of 3.744 MTPA by rail, at the rake capacity of 4000 tons with the time of 2.85 hrs taken for handling each rake and adding 0.5 hrs for placement, the number of hours required for loco to be used works out to 2508 hours per annum which has been considered for calculating fuel consumption of Loco. This is considered in this analysis.

- (ii). With regard to evacuation of the remaining 20% of cargo, the SPMP has stated that the said cargo would be evacuated by the pay loaders which would be deployed on hire, the cost of which has already been taken into account, as discussed earlier.

- (d). As per the norms prescribed in the guidelines for a coal terminal, the repairs and maintenance cost on civil work is estimated by SPMP at 1% on the civil cost and 7% on mechanical equipment and electrical equipment cost. The said estimation is also considered at 1% on the component of civil assets and 7% on the component of equipment cost forming part of the miscellaneous assets.

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

- (f). Depreciation has been computed by SPMP @ 3.17% on civil assets, 6.33% on Mechanical assets and 9.5% on Electrical assets. The SPMP has confirmed that the depreciation rates are as per the Straight line method as per the Companies Act, 2013.

- (f). The guidelines for upfront tariff fixation stipulate that lease rent for port land is to be estimated based on the rates prescribed in the Scale of Rates of the respective Major Port Trusts. Lease rental has been estimated by the port for a land area of 211640 square metres, of which 168888 is bare land and the remaining 42,752 square metres is Hard Stand Land. The license fee for the Dock Interior (inside Custom bounded area) for Bare Land and Hard Stand

Area has been fixed at ₹26.28 per sq.m per month and ₹40.86 per sq.m per month respectively vide the Order no. TAMP/62/2016-KOPT dated 29 March 2017. As per the said Order, the said license fee has come into effect from 07 April 2016. Therefore, in April 2020, the said license fee would have got escalated four times by 2% and the license fee as applicable as on date would be ₹ 28.446 per sq.m per month and ₹44.22 per sq.m per month for the Dock Interior (inside Custom bounded area) for Bare Land and Hard Stand Area respectively, which has been considered by SPMP in its workings.

The Sarat Chatterjee & Co., is in agreement with the rates of license fee considered by the port. It is also in agreement with the area (42,752 sq. mtr.) of hard stand land considered by the port. It only differs with the area of bare land. In this regard, the port has clarified that the area of bare land is 1,68,888 sq. mtr.

- (ix). The total operating cost for the Cargo Handling Activity as discussed above is works out to ₹75.47 Crores.
- (x). The Upfront Tariff Guidelines, 2008 prescribes 16% return on the Capital Employed. Accordingly, the SPMP has worked out return on Capital Employed at the rate of 16% on the total Capital Cost of ₹298.26 crores, which works out to ₹47.72 Crores.
- (xi).
 - (a). The Annual Revenue Requirement (ARR) for the Cargo handling activity which is the sum of the operating cost and return on capital employed is estimated at ₹123.19 crores.
 - (b). As prescribed in the guidelines for a coal terminal, the SPMP has apportioned 98% of the total revenue requirement towards handling charges and 1% each towards storage charge and miscellaneous charge.
- (xii). The statement for fixing upfront tariff submitted by the SPMP is attached as **Annex - I**.
- (xiii).
 - (a). The tariff caps are determined so as to meet the estimated revenue requirement to operate the terminal at the optimal capacity. Since the handling rate for all the three cargo groups proposed to be handled at the envisaged facility is reported to be the same, the SPMP has sought to prescribe uniform rate for all the cargo items, by considering the ratio of foreign and coastal cargo at 90:10 on the basis of the average of the actual ratio of foreign and coastal cargo (dry bulk [excluding thermal coal shipment]) handled at HDC in the last 3 years. The ratio of foreign and coastal cargo was given by the SPMP based on the past actual data, during the proceedings relating to the proposal received from SPMP for fixation of Reference tariff for the project of Setting up of Outer Terminal-I at HDC vide Order no. TAMP/76/2017-KOPT dated 31 July 2018.
 - (b). As per policy direction of the Government, concessional tariff are to be prescribed for coastal cargo (other than thermal coal and POL including crude oil, iron ore and iron ore pellets). Accordingly, concessional tariff has not been prescribed for coastal thermal coal, iron ore and iron ore pellets.
- (xiv).
 - (a). In the proposed Scale of Rates, the SPMP has proposed a free period of 25 days for coal/ coke and all the other dry bulk cargo envisaged to be handled at the facility, as prescribed in the upfront guidelines.
 - (b). In the calculation of storage charges, the SPMP has considered that 70% of the cargo will be evacuated within the free period of 25 days and the balance 30% of the cargo is assumed to be evacuated in a gradual manner over 2

chargeable slab periods each comprising of 5 days. Thereafter, the SPMP has assigned weight to each of the slab and has thus worked out the storage charges to be applicable in each of the slabs to meet the ARR pertaining to the Storage activity. The rate for the 2nd slab and 3rd slab is prescribed at 1.5 times and 2 times the rate of the 1st slab. The working for storage charges as furnished by SPMP is attached as **Annex - II**.

- (c). The APSEZPL has stated that generally traders take more than 50 days for evacuation of the cargo from the port and requested to revisit the percentage of cargo storage in each of the slabs from existing percentage 70% in free period, 20% in 1st Slab and 5% in 2nd Slab to 70% in free period, 15% in 1st Slab, 10% in 2nd Slab and 5% in 3rd Slab for calculation of the storage charges. In this regard, the SPMP has stated that as per the record at HDC, the average dwell time is 35 days and not 50 days. Accordingly, 35 days of dwell time and the calculation of the storage charges has been done as per method prescribed in different tariff orders of TAMP.
- (d). Some projects whose tariff was fixed under 2008 Guidelines at Major Port Trusts are facing the issues in relation to reported high storage charges which appear to have impact on the viability of the projects. It is reported by some operators that because of high storage charges they are not in a position to attract traffic to their terminals and the cargo gets diverted to nearby non-major ports and private ports who offer more free dwell time and charge lower storage charges. The 2013 Reference tariff Guidelines do not provide for modification of any tariff including free period and storage charges in a post bid scenario. Even the APSEZL has highlighted this aspect. Based on this position, the SPMP was requested to firm up the storage charges and free dwell time.
- (e). The SPMP has stated that the plot turnover ratio for a coal terminal prescribed in the guidelines is 12 based on the dwell time of 30 days. However, considering that the cargo at the proposed facility would be evacuated from the stackyard through mechanized wagon loading system, it has adopted a plot turnover ratio of 10 based on a dwell time of 35 days. In view of this position, the SPMP has reported to have considered a free period of 25 days.
- (f). The SPMP has addressed the request made by the prospective bidders to increase the free days by stating that the average dwell time of cargo at HDC as 35 days considering the same, free storage period has been proposed at 25 days for the tariff fixation.
- (g). Based on the detailed justification furnished by the Port, this Authority is inclined to approve the storage charges based on the methodology adopted by the Port.
- (xv). Based on the annual revenue requirement, the upfront tariff cap for miscellaneous charge is prescribed at ₹3.29 per tonne. The miscellaneous charge covers miscellaneous services such as sweeping, weighment of wagons, trucks, receiving/ delivery of cargo etc.
- (xvi). In the proposed Reference tariff schedule, the SPMP has proposed definitions for common terms like coastal vessel, foreign vessel, day, free period and per day. The definitions are found to be in line with the definitions prescribed for the respective terms in the various Upfront/ Reference tariff Schedules for the various project at various Major Port Trusts.
- (xvii). In the proposed Reference tariff schedule, the SPMP has proposed some general conditionalities like conditionalities governing classification of vessels into foreign and coastal, levy of interest on delayed payments/ refunds, rounding off bills, non-levy of

charges for delay beyond a reasonable level attributable to the terminal operator, conditionalities governing the flexibility provided to the terminal operator to levy charges lower than ceiling rates/ rationalize the conditionalities, which are found to be in line with the general conditionalities prescribed in the Upfront/ Reference tariff schedule of various major port trusts.

- (xviii). The SPMP has proposed a provision to state that the Cargo handling charges is a composite charge for unloading of the coal/ coke, Limestone and other Dry Bulk Cargo from the vessel and transfer of the same up to the point of storage, storage at stack yard upto a free period of 25 days after completion of unloading, reclaiming from stack yard and loading on the wagons/ trucks and is inclusive of wharfage and supply of labour and/ or equipment wherever necessary and all other charges not specifically prescribed in the Scale of Rates.
- (xix). Under the schedule of storage charges, the SPMP has proposed conditionalities stating that commencement of free period from the day following the day of complete -working days and custom notified holidays for the purpose of free period, storage charges to be payable for all days -working days and custom notified holidays for stay of cargo beyond free days and storage charge on cargo may not accrue for the period when the terminal operator is not in a position to deliver/ ship the cargo when requested by the user due to reasons attributable to the operator, are seen to be in line with the prescription at the other major ports/ private terminals.
- (xx). As per clause 2.8 of the upfront tariff Guidelines of 2008, 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, the estimation of capital cost and unit rate of operating cost considered in the upfront tariff calculation are as of the year 2020. Hence, it is found appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as on 1 January 2020 instead of 1 January 2021 as proposed by SPMP.
- (xxi). Clause 2.2 of the revised tariff guidelines of 2013 requires this Authority to prescribe the Reference Tariff along with the Performance Standards. Though the revised guidelines of 2013 do not require this Authority to go into the Performance Standards proposed by the port it is not unreasonable to assume that the ports would propose reasonable and achievable Performance Standard.

The SPMP has proposed the Performance Standards in respect of Gross Berth Output for Coal/ Coke, Limestone and other Dry Bulk Cargoes to be handled by the Panamax Vessels and Handymax Vessels each at 20000 tonnes per Day per Berth, as considered in the optimal quay capacity calculation.

Recognizing that clause 2.2. of the revised guidelines of 2013 requires this Authority to notify the Performance Standards, the Performance Standards as proposed by the SPMP, are notified along with the Reference Tariff Schedule.

- (xxii). **If there is any error apparent on the face of records considered or for any other justifiable reasons, the SPMP may approach this Authority for review of the reference tariff fixed, prior to completion of bidding process of the project giving adequate justification / reasoning within 30 days from the date of notification of the Order in the Gazette of India.**

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

9.2. The Reference Tariff Schedule is attached as **Annex - III** and the schedule of Performance Standards for the Mechanisation of Berth no. 2 at HDC of SPMP is attached as **Annex - IV**.

9.3. In the result, and for the reasons given above and based on a collective application of mind, this Authority approves the Reference Tariff Schedule for the Mechanisation of Berth no. 2 at HDC and notifies it alongwith the Performance Standards.

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

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

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

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

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

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

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

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

10.7. From the third year of operation, the Performance Linked Tariff proposal from the PPP operator shall be automatically notified by this Authority subject to the achievement of Performance Standards in the previous 12 months period as certified by the Independent Engineer. The PPP

operator, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and this Authority shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.

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

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

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

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

(T.S. Balasubramanian)
Member (Finance)

ANNEX - I			
REFERENCE TARIFF CALCULATION FOR THE MECHANISATION OF BERTH NO. 2 [Erstwhile Berth No. 3] AT HALDIA DOCK COMPLEX OF SYAMA PRASAD MOOKERJEE PORT, KOLKATA.			
Sr. No.	Particulars		₹ In Crores Estimates furnished by KOPT
I	Optimal capacity		
(a)	Optimal Quay Capacity		
	Percentage Share of capacity of Vessels		
	- Panamax Vessels (S1)		70%
	- Handymax Vessels (S2)		30%
	Shipday Output		
	- Panamax vessels (P1)		20000
	- Handymax vessels (P2)		20000
	Optimal Quay Capacity = $0.7 * ((S1 * P1) + (S2 * P2)) * 365$ (in tonnes)		5110000
(b)	Optimal Yard Capacity		
	- Area of the yard made available by the port as usable storage (in m2) (A)		100000
	- Percentage of total yard area that could be used for stacking (U)		100%
	- Quantity that could be stacked per m2 of area (Q)		5.2
	- Turnover ratio of the plot in an year (T)		10.285
	Optimal yard capacity $(0.7 * (A * U * Q * T \text{ tons}))$ (in tonnes)		3743740
	Optimal Capacity of the terminal (lower of (a) and (b)) (in tonnes)		3743740
	Optimal Capacity of the terminal (in million metric tonnes per annum)		3.744
II	Capital Cost		
A.	Cargo Handling Activity		₹
	(i). Civil Cost		
	Revamping of the Existing Berth to accommodate the Loaders and Other Machineries		2.79
	Civil Foundation for Conveyor Structure		5.00
	Civil works for Silo System		5.00
	Long Travel CR 120 Rail 360 Mtr		1.00
	Construction of New Railway Lines for Rapid Wagon Loading System		11.00
	Extension of existing railway tracks of Stacker cum Reclaimer		20.32
	RCC Drain		2.00
	Compound wall		1.50
	Land filling and Compaction		0.50
	Office Building		0.60
	Substation Building		2.69
	Laterite Hard Stading of the Yard		8.10
	Detailed Designs & Project Supervision costs @ 2%		1.21
	Contingencies @ 3%		1.82
	GST on Civil works @ 18%		11.44
			74.97
	(ii). Equipment Cost		
	1000 TPH Rail Mounted Harbour Mobile Crane with rail span of 13.687 M including Grab and Hoppers with Provision of Shore Power		79.16
	Conveyor 2000 TPH capacity (Approx 2000 m) including transfer points		21.19
	Stacker cum Reclaimer– Stacking-2000 TPH, Reclaiming - 2000 TPH, with Boom Length-45 m		50.00
	SILLO- for rapid Wagon Loading System with Storage Capacity of Mininum 800 MT and discharge rate of 2000 TPH		14.25
	Dust suppression system and Fire Fighting facilities including water supply and distribution.		7.59
	In motion Weigh Bridge		0.95
	Detailed Designs & Project Supervision costs @ 2%		3.46
	Contingencies @ 3%		5.19
			181.79
	(iii). Electrical Works		
	Electrical Power supply and distribution System including substation		25.00
	Illumination including High mast lighting		1.00
	Detailed Designs & Project Supervision costs @ 2%		0.52
	Contingencies @ 3%		0.78
			27.30
	(iv). Miscellaneous		
	5% on Civil Cost, Equipment & Electrical Cost		14.20
	Total Capital Cost for Handling Activity (i + ii + iii+iv)		298.26

Sr. No.	Particulars		Estimates furnished by KOPT
III	Operating Cost for Cargo Handling Activity		₹
	(a). Hire Cost		
	- Locomotive (Hire Charges Rs.75,509 per day X 360 days)		2.72
	- Baby Dozers (Hire Charges Rs. 13,230 per hour X 175 vessels X 10 hours)		2.32
	- Excavator (Hire Charges Rs. 1690 per hour X 8 hours X 360 days)		0.49
	- Hydra (Hire Charges Rs. 760 per hour X 8 hours X 360 days)		0.22
	- Bull Dozer (Hire Charges Rs. 2050 per hour X 8 hours X 350 days)		0.57
	- 10 MT Pay loaders (Hire Charges Rs. 24696 per hour X 2 Nos. X 2 Shifts X 300 days)		2.96
	(b). Power Cost (1.4 units/ tonne X Rs. 11.91 per unit X 3.744 MMTPA)		6.24
	(c). Fuel Cost		
	- Locomotive (30 ltrs per hour X Rs.75.03 per litre X 2508 hours p.a)		0.56
	(c). Repair & Maintenance		
	- Civil Assets (1% on civil work)		0.79
	- Mechanical & Electrical Equipment including spares (7% on equipment cost)		15.37
	(d). Insurance (1% on Gross fixed assets)		2.98
	(e). Depreciation		
	- Civil Work @ 3.17%		2.50
	- Mechanical Work @ 6.33%		12.08
	- Electrical Assets @ 9.5%		2.72
	(f). License Fee (168888 sqm bare land @ 28.4463 per sqm per month + 42752 sq.m hard stand & Jetty area @ Rs 44.2281 per sqm per month X 12 months)		8.03
	(g). Other Expenses towards salaries and overheads (5% on gross value of assets)		14.91
	Total Operating Cost		75.47
IV	Estimated Revenue Requirement & upfront tariff for Cargo Handling Activity		
A.			
(i).	Estimated Revenue Requirement		
	(a). Total Operating Cost		75.47
	(b). Return on capital Employed @ 16%		47.72
	(c). Total Revenue requirement from cargo handling activity		123.19
(ii).	Apportionment of Revenue Requirement		
	(a). Cargo Handling Charges (98% of ARR)		120.73
	(b). Storage Charges (1% of ARR)		1.23
	(c). Miscellaneous Charge (1% of ARR)		1.23
	(d).Total Revenue requirement from cargo handling activity		123.19
(iii).	Cargo Handling charge		
	(a). Cargo Handling Charge		
	- Revenue Requirement (₹ in lakhs)		12072.82
	- Capacity (Lakh Tonnes per annum)		37.44
	- Per Tonne rate for handling of cargo (foreign)		335.90
	(b). Storage Charge		
	- Revenue Requirement (₹ in lakhs)		123.19
	- % of Cargo to attract storage charge		35%
	- Capacity of cargo to attract storage charge (tonnes)		1310309
	Storage Charge (beyond the free period)		Rate Per tonne per day or part thereof
	-Free period		25 days
	-First five days (after free period)		1.39
	-6th day to 10th day (after free period)		2.08
	-11th day onwards (after free period)		2.77
	(c). Miscellaneous Charge		
	- Revenue Requirement (₹ in lakhs)		123.19
	- Capacity (Lakh Tonnes per annum)		37.44
	- Miscellenous Charge (₹ per tonne)		3.29

Annex - II

Working for calculation of storage charges (Berth No.2 [Erstwhile Berth No. 3])						
Sl. No.	Particulars	Free days	1st slab	2nd slab	3rd slab	Total
1	Optimum Capacity	37,44,000				
2	Days in each slab	25	5	5		
3	%age of cargo in each slab	70%	20%	10%		
4	Quantity in each slab	26,20,800	7,48,800	3,74,400		
6	50% time is taken in each slab on an average)		18,72,000	46,80,000		65,52,000
5	Weights assigned		1.00	1.50		
	Weighted Quantity in each slab (50% time taken in each slab on an average)		18,72,000	70,20,000		88,92,000
7	Revenue requirement					1.23 (₹ in Crores)
8	Average Tariff per MT ton per day					1.39
9	Tariff for each slab		1.39	2.08	2.77	

SYAMA PRASAD MOOKERJEE PORT, KOLKATA

REFERENCE TARIFF SCHEDULE FOR MECHANISATION OF BERTH NO. 2 [ERSTWHILE BERTH NO. 3] AT HALDIA DOCK COMPLEX OF SYAMA PRASAD MOOKERJEE PORT, KOLKATA**1. Definitions:**

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

- (i). 'Coastal Vessel' means any vessel exclusively employed in trading between any Port or place in India to any other Port or place in India having a valid coastal license issued by the Director General of Shipping / Competent Authority.
- (ii). 'Foreign Vessel' means any vessel other than Coastal vessel.
- (iii). 'Day' shall mean the period starting from 6 am of a day and ending at 6 am on the next day.
- (iv). 'Free period' shall mean the period during which cargo is allowed storage free of demurrage and this period shall exclude Customs notified holidays and Terminal's non-operating days.
- (v). 'Per Day' shall mean a calendar day or part thereof.

2. General Principles of Assessment:**(i). Criteria for levy of Cargo Related Charges (CRC) at Concessional Coastal rate**

- (a) Foreign going Indian Vessel having General Trading License issued for 'worldwide and coastal' operation should be accorded applicable coastal rates with respect to Handling Charges (HC) i.e. ship to shore transfer and transfer from/ to quay to/ from storage yard including wharfage in the following scenario:
 - (i) Converted to coastal run and carrying coastal cargo from any Indian Port and destined for any other Indian Port.
 - (ii) Not converted* to coastal run but carrying coastal cargo from any Indian Port and destined for any other Indian Port.
- * The Central Board of Excise and Customs Circular no.15/2002-Cus. dated 25 February 2002 allows carriage of coastal cargo from one Indian port to another port in India, in Indian flag foreign going vessels without any custom conversion.
- (b) In case of a Foreign flag vessel converted to coastal run on the basis of a license for specified period or voyage issued by the Director General of Shipping, and a Custom Conversion Order, the coastal cargo/container loaded from any Indian Port and destined for any other Indian Port should be levied at the rate applicable for coastal cargo / container.

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

(ii). System of classification of vessel for levy of Vessel Related Charges (VRC)

- (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. Such vessel that converts into coastal run based on the Customs Conversion Order at her first port of call in Indian Port, no further custom conversion is required, so long as it moves on the Indian Coast.

(b). Foreign going vessel of foreign flag can convert to coastal run on the basis of a license for specified period or voyage issued by the Director General of Shipping and a custom conversion order.

(c). Criteria for levy of Vessel Related Charges (VRC) at Concessional Coastal rate and foreign rate

- In cases of such conversion, coastal rates shall be chargeable by the load port from the time the vessel starts loading coastal goods.
- In cases of such conversion coastal rates shall be chargeable till the vessel completes discharging operations at the last call of Indian Port; immediately thereafter, foreign going rates shall be chargeable by the discharge ports.
- For dedicated Indian coastal vessels having a Coastal licence from the Director General of Shipping, no other document will be required to be entitled to coastal rates.

(iii) Interest on delayed payments / refunds:

- a) The user shall pay penal interest on delayed payments under this Scale of Rates. Likewise, the Terminal Operator shall pay penal interest on delayed refunds.
- b) The rate of penal interest will be 2 % above the Base Rate declared by the State Bank of India. The penal interest rate will apply to both the Terminal Operator and the user equally.
- c) The delay in refunds will be counted only 20 days from the date of completion of services or on production of all the documents required from the users, whichever is later.
- d) The delay in payments by the users will be counted only 10 days after the date of raising the bills by the Terminal Operator. The provision shall, however, not apply to the cases where payment is to be made before availing the services as stipulated in the Major Port Trusts Act, 1963 and/or where payment of charges in advance is prescribed in this Scale of Rates.

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

(v). No claims for refund shall be entertained unless the amount refundable is ₹100/- or more. Likewise, terminal operator shall not raise any supplementary or undercharge bills, if the amount due to the terminal is ₹100/- or less.

(vi). Users will not be required to pay charges for delays beyond a reasonable level attributable to the Terminal Operator.

(vii). The berth hire charges for all Coastal vessels should not exceed 60% of the corresponding charges for other vessels.

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

(b). The Terminal Operator may also, if he so desires, rationalize the prescribed conditionality 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.

(c). Provided that the Terminal Operator should notify the public such lower rates and / or rationalization of the conditionality governing the application of such rates and continue to notify

the public any further changes in such lower rates and / or in the conditionality governing the application of such rates, provided the new rates fixed shall not exceed the rates notified by the TAMP.

(ix). In calculating the gross weight/ measurement by volume or capacity of any individual item, fractions upto and inclusive 0.5 shall be taken as 0.5, unit fractions of above 0.5 shall be treated as one unit, except where otherwise specified.

3. Cargo Handling Charges:

Sl. No.	Commodity	Unit Rate in ₹ per Metric Tonne	
		Foreign	Coastal
1.	All Types of Coal & Coke, Limestone and other Dry Bulk Cargoes (Other than Thermal Coal, Iron Ore & Iron Ore Pellets)	335.90	201.54
2.	Thermal Coal, Iron Ore & Iron Ore Pellets	335.90	335.90

Note:

The Cargo handling charges prescribed above is a composite charge for unloading of the coal/ coke, Limestone and other Dry Bulk Cargo from the vessel and transfer of the same up to the point of storage, storage at stack yard upto a free period of 25 days after completion of unloading, reclaiming from stack yard and loading on the wagons / trucks. This composite charge includes wharfage and supply of labour and/ or equipment wherever necessary and all other charges not specifically prescribed in the Scale of Rates.

4. Storage Charges

The Storage charges for the cargo stored in the stack yard beyond the free period allowed shall be as follows:

Description	Rate in ₹ per MT per Day or part thereof
Free period	25 days
First five days after expiry of free period	1.39
6 th day to 10 th day after expiry of free period	2.08
From 11 th day onwards	2.77

Notes :

- (i). Free period shall commence from the day following the day of complete discharge of cargo.
- (ii). For the purpose of free time, terminal's non-working days and Custom's notified holidays shall be excluded.
- (iii). Storage charge shall be payable for all days including terminal's non-working days and Custom's notified holidays for stay of cargo beyond the prescribed free days.
- (iv). Storage charge on cargo shall not accrue for the period when the terminal operator is not in a position to deliver/ ship the cargo when requested by the user due to reasons attributable to the operator.

5. Miscellaneous Charges:

Composite charge for all the miscellaneous services such as sweeping, weighment of wagons/ trucks, receiving/ delivery of cargo etc., shall be levied at ₹ 3.29 per metric tonne.

6. General Note to Section-3 to Section-5 Above:

- i. The Reference Tariffs will be indexed to inflation but only to an extent of 60% of the variation in Wholesale Price Index (WPI) occurring between 1st January 2020 and 1st January of the relevant year. Such automatic adjustment of Reference Tariffs will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year.
- ii. From the date of Commercial Operation (CoD) till 31st March of the same financial year, the tariff would be limited to the indexed Reference Tariff relevant to that year, which would be the ceiling. The aforesaid Reference Tariff shall be automatically revised every year based on an indexation as provided in para 2.2 of the tariff guidelines of 2013 which will be applicable for the entire licence period. However, the Licensee would be free to propose a tariff along with Performance Standards (the "Performance Linked Tariff") from the second year of operation onwards, over and above the indexed Reference Tariff for the relevant financial year, at least 90 days before the 1st April of the ensuing financial year. Such Performance Linked Tariff shall not be higher than 15% over and above the indexed Reference Tariff for that relevant financial year (and this will be the Tariff Cap). The Performance Linked Tariff would come into force from the first day of the following financial year and would be applicable for the entire financial year.
- iii. The proposal shall be submitted to TAMP along with a certificate from the independent engineer appointed under the Concession Agreement of the Project indicating the achievement of Performance Standards in the previous 12 months as incorporated in the Licence Agreement or for the actual number of months of operation in the first year of operation as the case may be.
- iv. On receipt of the proposal, TAMP will seek the views of the Major Port Trust on the achievement of Performance Standards as outlined in para 5 of the tariff guidelines of 2013, within 7 days of receipt.
- v. In the event of Licensee not achieving the Performance Standards as incorporated in the Licence Agreement in previous 12 months, TAMP will not consider the proposal for notifying the Performance Linked Tariff for the ensuing financial year and the Licensee shall be entitled to only the indexed Reference Tariff applicable or the ensuing financial year.
- vi. After considering the views of the Major Port Trust, if TAMP is satisfied that the Performance Standards as incorporated in the Concession Agreement have been achieved, it shall notify the performance linked tariff by 15th of March to be effective from 1st of April of the ensuing financial year.
- vii. While considering the proposal for Performance Linked Tariff, TAMP will look into the Performance Standards and its adherence by the Licensee. TAMP will decide on the acceptance or rejection of the Performance Linked Tariff proposal based on the achievement or otherwise of the Performance Standards by the Licensee. Determination of indexed Reference Tariff and Performance Linked Tariff will follow the illustration shown in the Appendix attached to the tariff guidelines of 2013.
- viii. From the third year of operation, the Performance Linked Tariff proposal from the Licensee shall be automatically notified by TAMP subject to the achievement of Performance Standards in the previous 12 months' period as certified by the Independent Engineer. The Licensee, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and TAMP shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.

PERFORMANCE STANDARDS

Schedule of Performance Standards for “Mechanisation of Berth no. 2 [Erstwhile Berth No. 3]” at Haldia Dock Complex, Syama Prasad Mookerjee Port, Kolkata”

Gross Berth Output:

The parameter deals with the productivity of the terminal (Gross Berth Output) for different types of cargo. In case of coal/ coke/ limestone/ other dry bulk cargo, the capability of the terminal (mechanization, method of handling) and parcel size will determine the Gross Berth Output. Higher terminal capability and greater parcel size will lead to high productivity. The Gross Berth Output shall be calculated by taking the total cargo unloaded from the ships during a month in the terminal divided by the **net** total number of working days of **all the** ships in that month at that terminal **and multiplying the quotient by 24. The net** working days of **all the** ships shall be determined by subtracting 4 hours per shift from the total hours spent by all the ships at the terminal in the month in question. **While calculating the hours spent by the ship at the terminal, the time spent by the Ship at the terminal beyond ship declaring it's readiness to sell shall be ignored. Further, the vessels which complete her cargo work in a month shall be considered for calculation of the gross berth productivity of the month. The formula is as follows:**

$$\text{Gross Berth Output} = \frac{\text{Total cargo unloaded from the ship during the month in the Terminal}}{\text{Networking hours}} \times 24$$

The norms of Gross Berth Output for Coal/ Coke, Limestone and other Dry Bulk Cargoes are as follows;

- Gross Berth Output for the Panamax Vessels or higher size vessels – 20,000 MT per Day
- Gross Berth Output for the Handymax / Supramax Vessels – 20,000 MT per Day

SUMMARY OF THE COMMENTS RECEIVED FROM THE USERS AND THE ARGUMENTS MADE IN THIS CASE DURING THE JOINT HEARING BEFORE THE AUTHORITY.

TAMP/47/2020-SPMP : Proposal received from Syama Prasad Mookerjee Port (SPMP) [Erstwhile Kolkata Port Trust (KOPT)] for fixation of reference tariff for the project of “Mechanization of Berth No. 2 [Erstwhile Berth No. 3] at Haldia Dock Complex (HDC) on Design, Build, Finance, Operate, Transfer (“DBFOT”) basis” for a concession period of 30 years.

The comments received from Prospective Bidders/ Users and comments of SPMP thereon are tabulated below:

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP																																								
I (a).	M/s. Sarat Chatterjee & Co. (Visakhapatnam) Pvt. Ltd. [SCCPL]																																									
(a).	<u>Estimated Capital cost of 1000TPH Rail mounted Mobile Harbour Crane = 79.16Cr (Basis quotation from Liebherr)</u> The estimation of the capital cost is inaccurate. The following is the calculation of the landed cost of the MHCs based on the liebherr quotation. The landed cost for the MHCs is approx INR 87 Cr (based on 1€ = Rs 86.5 exchange rate) <table><tr><th></th><th>Quotation</th><th>Qty</th><th>In INR</th></tr><tr><td>Basic Price</td><td>€40,00,000</td><td>2</td><td>₹69,24,00,000</td></tr><tr><td>Grab</td><td>€1,25,000</td><td>3</td><td>₹3,24,56,250</td></tr><tr><td>Sea Freight</td><td>€4,25,000</td><td>2</td><td>₹7,35,67,500</td></tr><tr><td>Basic Customs duty + SWS</td><td></td><td></td><td>₹6,58,69,959</td></tr><tr><td>Port charges + Local stevedoring</td><td></td><td></td><td>₹50,00,000</td></tr><tr><td>Total cost =</td><td></td><td></td><td>₹86,92,93,709</td></tr></table>		Quotation	Qty	In INR	Basic Price	€40,00,000	2	₹69,24,00,000	Grab	€1,25,000	3	₹3,24,56,250	Sea Freight	€4,25,000	2	₹7,35,67,500	Basic Customs duty + SWS			₹6,58,69,959	Port charges + Local stevedoring			₹50,00,000	Total cost =			₹86,92,93,709	In order to review the capital cost (net price CIF Haldia Port), a latest offer of 1 Liebherr 425 was examined and the same is tabulated below: <table><tr><th colspan="2">Quotation for LIEBHERR mobile harbour crane, type LHM 425 delivery at Haldia</th></tr><tr><td>T tal net price CIF Haldia Main Seaport, India (EURO) (INCOTERMS 2010)</td><td>41,09,800</td></tr><tr><td>Exchange rate</td><td>86.5 Cr</td></tr><tr><td>Cost in Indian rupees</td><td>35.54 Cr</td></tr><tr><td>Customs @7.5%</td><td>2.66 Cr</td></tr><tr><td>Cess @0.75%</td><td>0.28 Cr</td></tr></table>	Quotation for LIEBHERR mobile harbour crane, type LHM 425 delivery at Haldia		T tal net price CIF Haldia Main Seaport, India (EURO) (INCOTERMS 2010)	41,09,800	Exchange rate	86.5 Cr	Cost in Indian rupees	35.54 Cr	Customs @7.5%	2.66 Cr	Cess @0.75%	0.28 Cr
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		<table><tr><td>Total cost of MHC in INR</td><td>38.48 Cr</td></tr><tr><td>Cost of Grab</td><td>0.75 Cr</td></tr><tr><td>Cost of Hopper</td><td>0.50 Cr</td></tr><tr><td>Grand Total (INR)</td><td>39.73 Cr</td></tr><tr><td>Cost of two nos MHC</td><td>79.46 Cr</td></tr></table>	Total cost of MHC in INR	38.48 Cr	Cost of Grab	0.75 Cr	Cost of Hopper	0.50 Cr	Grand Total (INR)	39.73 Cr	Cost of two nos MHC	79.46 Cr									
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		Moreover, an offer was received from M/S ITALGRU Port & Offshore Cranes for the proposed project and the rate is as following: <table><tr><td colspan="2">Quotation for ITALGRU mobile harbour crane, type IGHC-R 2120 E. delivery at Haldia</td></tr><tr><td>Total net price CIF Haldia Main Seaport, India (EURO) (INCOTERMS 2010) Plus Grab @ 10500000</td><td>Euro (4050000+ 105000)</td></tr><tr><td>Exchange rate</td><td>86.5</td></tr><tr><td>Cost in INR</td><td>35.94 Cr</td></tr><tr><td>Customs @7.5%</td><td>2.69Cr</td></tr><tr><td>Cess @0.75%</td><td>0.289 Cr</td></tr><tr><td>Cost of Hopper</td><td>0.5 Cr</td></tr><tr><td>Total INR</td><td>39.419Cr</td></tr><tr><td>Cost of Two MHC</td><td>78.838 Cr</td></tr></table> [The SPMP has furnished a copy of offers] In view of the above, the estimated cost of Rs 79.16 Cr for two MHC as proposed in tariff proposal is adequate and needs no further modification.		Quotation for ITALGRU mobile harbour crane, type IGHC-R 2120 E. delivery at Haldia		Total net price CIF Haldia Main Seaport, India (EURO) (INCOTERMS 2010) Plus Grab @ 10500000	Euro (4050000+ 105000)	Exchange rate	86.5	Cost in INR	35.94 Cr	Customs @7.5%	2.69Cr	Cess @0.75%	0.289 Cr	Cost of Hopper	0.5 Cr	Total INR	39.419Cr	Cost of Two MHC	78.838 Cr
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(b).	<u>Estimated Capital cost of 2000TPH conveyor system including accessories = 21.19Cr (Basis quotation from FLSMIDTH)</u> FLSMIDTH's quotation is basis 2400m. Considering a simple interpolation of 2200m (as per the layout of DPR) from FLSMIDTH's value - i.e 2200/2400x27.55Cr. =25.25Cr.) Also the above rates from FLSMIDTH does not contain the cost of design, manufacturing & installtion	Total length of the conveyor as per the Layout drawing is approximately 2000 m. The quotation were asked for 2.4km conveyors as per initial estimate.																			

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP
	of 2 nos. of rail mounted mobile hoppers (approx Rs 90L/unit). These mobile hoppers are not included in the mobile harbour crane cost and have to be fabricated independently. They shall be operating on rails on the beams at the rear of the berth. Considering the above the estimation should be ₹28 Cr.	However, during final drawing it was observed that the conveyor length would be approx. 2.0 km as per AutoCAD drawing. Accordingly, the estimate of Rs 21.19 Cr for 2000M Conveyor was prepared as per revised rate of Conveyor of FL Smith. However, Civil Cost of Rs. 5 Cr has been considered separately.
(c).	<u>Estimated Capital cost of Stacker-Reclaimer (2nos. - 2000TPH with a boom length of 40m) – ₹50.00Cr.</u> As per the layout provided in the DPR, the width of the coal stockyard is 46m wide on an average. So the boom length required should also be about 46m. FLSMIDTH has quoted ₹85Cr. For a boom length of 45m while Thyssenkrupp's quote of ₹50Cr. appears to be for 40m boom length. So an estimation of ₹50Cr. for the 2 nos. of Stacker reclaimer with 46m boom length is not sufficient and should be closer to ₹65-70Cr.	Boom length is considered as the distance between Slew Centre of Stacker Cum Reclaimer and axis of rotation of bucket wheel. Considering the bucket, the effective length would be around 48 m which is more than enough to technically cover the total stackyard width of 45 m. The estimate of Stacker Cum Reclaimer has been prepared considering the price of Thyssenkrupp's quote of 45 m boom length.
(d).	<u>Estimated Capital cost of Rapid loading system (800T capacity & 2000Tph) – ₹14.25 Cr.</u> There is a big variation between HDC's estimation & FLSMIDTH's quotation of ₹20.75Cr, though Flsmidth has quoted for a larger capacity of 1000T. Considering our recent experience of installing a similar sized RLS in Paradip Port, the cost of such equipment is approximately ₹19Cr at a price level in 2018. So, an estimated price of ₹20.75Cr. should be assumed.	The lowest price of rapid wagon loading system of Thyssenkrupp is 5 Cr and the price of SILO as offered by FL Smith is 2.75 Cr. Accordingly, the cost of Raid wagon loading system was averaged to $[(5+18)/2+2.75]$ 14.25 Cr which is at a higher side of the budgetary offer. [The SPMP has furnished a Break up of cost of M/s. FL Smith.]
(e).	<u>Estimated Capital cost of Electrical power supply & distribution system - ₹25Cr.</u> AS per the earlier DPR the cost estimation was 36.20Cr at 2018 levels. There has not been any major change in the equipment electrical load (est. 1.8MVA). The capacity of the conveyor motors would reduce due to lower capacity of 2000TPH. But the electrical loads in the Stacker reclaimer will increase. Also there is no quotation or BoQ changes that warrants a 11.2Cr decrease in cost. So the estimation for this cost should remain ₹36.2Cr as per the earlier DPR (a 5% escalation for 2 years should be added to appropriately estimate for 2020 levels)	Present estimate has been prepared as per budgetary offer from the market. However, the cost of electrical system has reduced based on load of proposed capacity which is lower than the earlier capacity i.e. reduction of Capacity of Conveyor system, Rapid wagon loading system and replacement of 1500 TPH Gantry Grab Unloader by 1000 TPH Mobile harbour crane.

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP
		Hence, the estimated rate is adequate.
(f).	<u>Revamping of the Existing Berth to accommodate the Loaders and other Machineries = ₹2.79Cr.</u> This value is referenced from a IIT Madras report on NDT tests conducted on the berth. - "Condition Assessment of Concrete in the Reinforced Concrete Structural Elements of the Berth 3 ". Doc No. - IITM/DOE/HDC/MB-3/DTR/0112/09/2018 The berth structure is over 30 yrs old. The concessionaire shall be using this berth for another 30 yrs. The report by IIT Madras does not mention about the fatigue strength of the concrete structure. It also does not mention about the load bearing capacity of the piles. There are no available as-built drawing of the berth with details of the reinforcement for correlation of the NDT tests with load bearing capacity. The report does not calculate the cost of the following: (i). Damage handrails, Mooring rings, Rubbing strips etc. (ii). Replacing of bollards & fenders (to suit Panamax ships) (iii). Replacing the screed layer. For the concessionaire to satisfy the independent engineer about the load bearing of the concrete structure as per the new equipment, certain destructive load tests need to be carried out on the piles & beams. Also additional piles may be required to compensate for the additional safety. The estimation for the revamping of the Berth is underestimated. A more accurate estimation should be in the region of ₹15-20Cr.	(i). The berth is supported on segregated monolith system and not on pile foundation. Therefore, the load distribution on the jetty is of uniform distributed type and not concentric point load system on individual pile. (ii). The jetty was earlier subjected to a load of ship loader of 3000 TPH capacity, the static load and dynamic load of which is higher than the mechanism of crane proposed on the jetty. (iii). The examination of jetty structure done by IITM clearly shows that the jetty is capable of sustaining super imposed load for substantial period i.e. total duration of the operation which has been planned on the jetty. This is also substantiated by the determination of comprehensive load on the concrete sample taken from the jetty done by IIT M which shows it is capable of withstanding load which takes care of fatigue disposition of the structure.
(g).	<u>Civil Estimate (Item 10,11) - Buildings estimate - 3.29Cr.</u> The following buildings are required at site: (i). Admin office Building (ii). Substation (iii). Gate house complex (2 nos) (iv). Stores + workshop (v). Pump house + fire water tank (vi). Canteen + other amenities building (vii). Vehicle parking (viii). Sewage treatment plant.	In the Civil estimate Office building and substation building @ 3.29 Cr has been considered. The ground floor of the office building has been considered for the Workshop. In existing system, sewage disposal plant is not envisaged for the project. The civil estimate has been prepared as per established procedure.

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP																								
	Only office building (240Sqm or 2500sqf) and substation has been included. This is insufficient and the estimated cost for the buildings is approximately ₹9Cr.																									
(h).	<u>S.No. 8 Capital Cost = ₹298.26Cr.:</u> Considering the above increased estimations of actual cost of the equipment, the capital cost of the project should be approximately ₹350-360Cr. In addition to the above, the following should also be considered in the capital costs: (i). The interest cost during the construction (IDC) has not been considered in the capital cost. (ii). The capital cost should also consider an escalation by 15% on account of inflation and price escalation during the 3yrs of construction period.	The capital cost has been estimated as per TAMP guideline. 2% supervision and 3% contingencies have considered over and above the basic cost of the project. Moreover 5% miscellaneous charges has been considered in the total estimate. So the estimate submitted to TAMP is as per tariff guideline and require no further modification.																								
(i).	<u>License fee calculation:</u> The existing Paver Block hardstand area of 39,761sqm is part of the 1,44,264sqm area with boundary earmarked with green line. So the license fee calculation should be: <table border="1"> <tr> <td>Bare land- Stockyard + utilities (144,264-39,761)sqm</td><td>SQM</td><td>1,04,503</td></tr> <tr> <td>Bare land - Conveyor C6 & C5</td><td>SQM</td><td>1,566</td></tr> <tr> <td>Bare land - Rail line</td><td>SQM</td><td>21,132</td></tr> <tr> <td>Total Bare land</td><td>SQM</td><td>1,27,201</td></tr> <tr> <td>Existing Paver block + road</td><td>SQM</td><td>39,761</td></tr> <tr> <td>Jetty Area =</td><td>SQM</td><td>2,991</td></tr> <tr> <td>Total Hard Stand area =</td><td>SQM</td><td>42,752</td></tr> <tr> <td>License fee (1,27,201 @28.4463+42,752@44.2281)</td><td>₹</td><td>55,09,238</td></tr> </table>	Bare land- Stockyard + utilities (144,264-39,761)sqm	SQM	1,04,503	Bare land - Conveyor C6 & C5	SQM	1,566	Bare land - Rail line	SQM	21,132	Total Bare land	SQM	1,27,201	Existing Paver block + road	SQM	39,761	Jetty Area =	SQM	2,991	Total Hard Stand area =	SQM	42,752	License fee (1,27,201 @28.4463+42,752@44.2281)	₹	55,09,238	As per layout drawing, total hard stand (42752 sqm) is the sum of 39761 sqm is the hard stand already included inside the yard area 2991 sq m of berth area. Total project area is the sum of 42,752 sqm of hard stand and 1,68,888 sqm of bare land. The license fee has been calculated as per the prevailing SOR.
Bare land- Stockyard + utilities (144,264-39,761)sqm	SQM	1,04,503																								
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(j).	<u>Operating Cost Calculation:</u> The operating cost calculation should be modified as per following CAPEX: (i). Civil - ₹94Cr. (ii). Mechanical - ₹220 Cr. (iii). Electrical - ₹39 Cr. (iv). Total - ₹353Cr.	--																								

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP																		
	The Opex shall increase by 9.51Cr. to 84.98Cr. The following are the revised values of the opex items: <table><tr><td>Repair & Maintenance</td><td>1,04,503</td></tr><tr><td>Civil @ 1%</td><td>0.94</td></tr><tr><td>Mech + Elec (@ 7%)</td><td>18.13</td></tr><tr><td>Depreciation</td><td></td></tr><tr><td>Civil @ 3.17%</td><td>2.98</td></tr><tr><td>Mechanical @ 6.33%</td><td>13.93</td></tr><tr><td>Electrical @ 9.5%</td><td>3.71</td></tr><tr><td>Insurance</td><td>3.53</td></tr><tr><td>Misc. Expenses (5% of gross assets)</td><td>17.65</td></tr></table>	Repair & Maintenance	1,04,503	Civil @ 1%	0.94	Mech + Elec (@ 7%)	18.13	Depreciation		Civil @ 3.17%	2.98	Mechanical @ 6.33%	13.93	Electrical @ 9.5%	3.71	Insurance	3.53	Misc. Expenses (5% of gross assets)	17.65	
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(k).	<u>Revised tariff calculation:</u> Considering the following: <table><tr><td>Capex (in Cr.)</td><td>₹</td><td>353</td></tr><tr><td>Opex (in Cr.)</td><td>₹</td><td>84.98</td></tr><tr><td>16% RoC on the Capex (in Cr.)</td><td>₹</td><td>56.48</td></tr><tr><td>Annual revenue requirement (in Cr.) for 3.744MTPA cargo qty</td><td>₹</td><td>141.46</td></tr><tr><td>Proposed Tariff for Foreign cargo handling (90% foreign, 10% Coastal)=</td><td>₹ / T</td><td>382.64</td></tr></table>	Capex (in Cr.)	₹	353	Opex (in Cr.)	₹	84.98	16% RoC on the Capex (in Cr.)	₹	56.48	Annual revenue requirement (in Cr.) for 3.744MTPA cargo qty	₹	141.46	Proposed Tariff for Foreign cargo handling (90% foreign, 10% Coastal)=	₹ / T	382.64	--			
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Proposed Tariff for Foreign cargo handling (90% foreign, 10% Coastal)=	₹ / T	382.64																		
(l).	<u>Case of reserved royalty to be included into the calculation of the tariff</u> The above tariff calculation is based on the estimates of the capital cost and operating expense estimates. No reserved royalty has been considered in the calculation. For a demand for reserved royalty in the tender condition, the reserved royalty amount should be added to the proposed tariff.	The proposal for fixation of upfront tariff has been prepared in terms of 'Guidelines for upfront tariff setting for PPP projects at Major Port Trusts, 2008' and the clause-3.5.5 of the said guidelines provides the following: "Revenue share will not be considered as an item of cost for fixing the upfront tariff." Therefore there is no scope for factoring any royalty as an item of cost in determination of upfront tariff.																		
(m).	The 24 month construction period of the project provided in the DPR is too less.	In the RFP & DCA invited on 1st call, it was stipulated that the construction period of 18 months from the date of completion of condition precedence.																		

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP
	Considering the delayed timelines in importing of critical parts and ongoing labour crisis in the country due to the post pandemic recovery, 36 months is a more accurate timeline. Prior DPRs of this project had proposed 36 months for construction period and the revised layout proposes more construction work at site than the previous layout.	However, considering the opinion of the Prospection bidders, the construction period has been increased to 24 months from the completion of condition precedence. It is pertinent to mention that similar plant with construction of Jetty at Berth no-4A of HDC under BOT operator completed construction within 24 months way back at 2003. Now with the development of technology and on existing berth, 24 months construction period is sufficient.
I (b).	Additional Comments received from M/s. Sarat Chatterjee & Co. (Visakhapatnam) Pvt. Ltd. [SCCPL]	
(a).	Regarding Handling of export dry bulk cargo The proposed mechanized terminal can handle only import dry bulk cargo as the Conveyor proposed to be installed is one way. Further, manual handling of export dry bulk cargo by ships gear is also not possible as the width of the jetty is not sufficient for stacking of cargo.	The relevant pages of the DPR as mentioned are related to Traffic Study of dry bulk cargo. The project has been envisaged for import dry bulk cargo i.e. Coking Coal / Non-Coking Coal, Limestone and other dry bulk cargo with unidirectional conveyor for import. Handling of export dry bulk was not envisaged in the design of the project but there is no restriction in handling of the same. However, the equipment like Dumper, payloaders etc for shifting of export dry bulk cargo has not been considered in the estimate.
(b).	Regarding assessment of optimum capacity of stack yard While assessing the capacity of stack yard, TAMP Guideline for exclusive 'coal terminal' has been considered although the proposed terminal will handle all types of compatible import dry bulk cargo along with coal. Therefore, Q (quantity stacked per sq.mt.) cannot be 5.2 MT which is applicable for coal only and for limestone, dolomite, cement clinker, manganese ore, etc. the Q will be much less as the stable stack height for these cargo will be less than that of coal. In view of the above, the optimum capacity of stack yard will be less than 3.744 MT per annum. Considering handling of all types of compatible import dry bulk cargo (80% coal and 20% other dry bulk cargo) the average quantity that can be stored per sq. mtr. area will be approximately 4.5 MT and	Stacking capacity considered as 5.2 Ton/sqm. For calculating the stockyard capacity as 80% of the total cargo expected to be handled is coal. The yard capacity of 3.74 MMT has been arrived as per the TAMP guideline. Moreover, the berth No 4 (erstwhile berth No 4A) at HDC equipped with similar import dry bulk cargo facility under a BOT operator has been handling following cargo during the last three years with a stockpile area of 30,000 sqm bare land.

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP																										
	thus the optimum capacity of the storage yard will be (0.7 x 1,00,000 x 4.5 x 10.285) 32,39,775 MMT, say 3.24 MMT (Three point two four Million Metric Tonne) per annum.	<table><tr><th>Year</th><th colspan="2">Cargo in MMT</th></tr><tr><td>2017-18</td><td colspan="2">2.91</td></tr><tr><td>2018-19</td><td colspan="2">3.28</td></tr><tr><td>2019-20</td><td colspan="2">3.15</td></tr></table> In addition, at other berths in Haldia Dock Complex, where similar Dry Bulk Cargo is handled by using two Mobile Harbour Cranes at each berth with a targeted productivity of 20,000 MT per day, the average volume of cargo handled annually during last 3 years is as follows : <table><tr><th>Year</th><th>Cargo handled at MHC Berths in MMT</th><th>Average cargo handled at each MHC berth in MMT</th></tr><tr><td>2017-18</td><td>15.2</td><td>3.8</td></tr><tr><td>2018-19</td><td>15.4</td><td>3.8</td></tr><tr><td>2019-20</td><td>15.6</td><td>3.9</td></tr></table> Accordingly, 1,00,000 sqm of stockpile area on laterite bouldering can be envisaged to handle 3.744 MMTA cargo.			Year	Cargo in MMT		2017-18	2.91		2018-19	3.28		2019-20	3.15		Year	Cargo handled at MHC Berths in MMT	Average cargo handled at each MHC berth in MMT	2017-18	15.2	3.8	2018-19	15.4	3.8	2019-20	15.6	3.9
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(c).	The assessment of total number of vessels as well as quantity that can be handled at the proposed terminal Due to draft limitation, the average parcel size of Panamax Vessel will be 30,000 MT while that of handimax / supramax will be restricted to 26,000 MT. Further, due to lock-gate restriction and variation in the tidal rise throughout the year, the number of vessels those can enter and exist through the lock-gate per day (considering both the tides) is restricted to maximum 10/11 vessel per day depending on the size as well as the draft of the vessel. It may be noted that during each tide normally one vessel with the highest draft of the day can enter through the lock and the second incoming vessel must be having at least .5 to .6 mtrs. less draft depending on the tidal variation on that particular day. Such limitation further restricts the types of vessel that can enter / exit through the lock. Since at Haldia, there are 14 working Berths inside the impounded Dock out of which 6 Berths (namely Berth-1, Berth-3, Berth-4, Berth-5, Berth-9 and Berth	It may be noted that following berths inside impounded dock are handling following capacity of cargo: At berth No 4 (erstwhile berth No 4A) at HDC equipped with similar import dry bulk cargo facility under a BOT operator has been handling following cargo during the last three years with a stockpile area of 30,000 sqm bare land. <table><tr><th>Year</th><th colspan="2">Cargo in MMT</th></tr><tr><td>2017-18</td><td colspan="2">2.91</td></tr><tr><td>2018-19</td><td colspan="2">3.28</td></tr><tr><td>2019-20</td><td colspan="2">3.15</td></tr></table> In addition, at other berths in Haldia Dock Complex, where similar Dry Bulk Cargo is handled by using two Mobile Harbour Cranes at each berth with a targeted productivity of 20,000 MT per			Year	Cargo in MMT		2017-18	2.91		2018-19	3.28		2019-20	3.15													
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	14 as per new nomenclature) exclusively handling dry bulk cargo apart from the proposed terminal and the import dry bulk cargo vessel which normally arrive with the highest draft of the day (to maximize the parcel load), it will not be possible for Port to accept all the waiting import dry bulk cargo vessel in a single tide even if the berths are lying vacant. Acceptance of import dry bulk cargo vessel will be further restricted due to acceptance of container vessel which are handled at two dedicated containers berths inside the impounded dock. Incidentally 50% of the container 2 vessels are arriving with highest draft of the day and calling and berthing priority of container vessels are higher than that of dry bulk cargo vessel. It will be pertinent to mention that at present around 400 container vessels are calling at Haldia every year which translates to calling as well as sailing of more than one container vessel per day. Therefore, arrival of container vessels further restrict the acceptance of dry bulk cargo vessel at Haldia. Considering the average parcel load of dry bulk cargo vessel calling at Haldia as 28,000 MT, the operational time required for handling such vessel at the proposed terminal will be 1.4 days as the average throughput per day at this terminal is 20,000 MT. Further, due to the tidal variation and lock-gate constraint as stated above, the average turnaround time of the vessel at this terminal will be 3 (three) days. If 330 operational days are available in a year (which is maximum considering maintenance and breakdown of the plant) then maximum 110 vessels can be handled at this terminal in a year. Therefore, the maximum handling capacity of the terminal will be $28,000 \times 110 = 3.08$ MMT per annum. Since the handling capacity of the terminal is less than the storage capacity, the maximum capacity of the proposed terminal will be 3.08 MMT per annum only.	day, the average volume of cargo handled annually during last 3 years is as follows : <table border="1"> <thead> <tr> <th>Year</th><th>Cargo handled at MHC Berths In MMT</th><th>Average cargo handled at each MHC Berth In MMT</th></tr> </thead> <tbody> <tr> <td>2017-18</td><td>15.2</td><td>3.8</td></tr> <tr> <td>2018-19</td><td>15.4</td><td>3.8</td></tr> <tr> <td>2019-20</td><td>15.6</td><td>3.9</td></tr> </tbody> </table> Accordingly, 1,00,000 sqm of stockpile area on laterite bouldering can be envisaged to handle 3.744 MMTA cargo.	Year	Cargo handled at MHC Berths In MMT	Average cargo handled at each MHC Berth In MMT	2017-18	15.2	3.8	2018-19	15.4	3.8	2019-20	15.6	3.9
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(d).	Calculation of Tariff Since the total revenue requirement per annum for the proposed terminal has been assessed as 123.19 crores out of which 98%, i.e. 120.73 crores is required through cargo handling only the proposed tariff will be as follows considering foreign cargo to be 90% of the assessed volume of 3.08 MMT and 10% will be coastal cargo.	Tariff has been calculated and proposed as per TAMP guidelines, hence no further modification is required.												

Sl. No.	Comments received from Users / Prospective bidders			Reply of SPMP
	Sl. No.	Commodity	Unit Rate in Rupees per Metric Tonne or part thereof	
	1.	All types of Coal/Coke, Limestone and other Dry Bulk Cargoes (other than Thermal Coal, Iron Ore & Iron Ore Pellets)	408.31	244.99
	2.	Thermal Coal, Iron Ore & Iron Ore Pellets	408.31	408.31
II.	M/s. Steel Authority of India Limited [SAIL]			
(a).	Cargo Handling charges has been fixed at ₹335.90/- pmt with miscellaneous charges @ ₹3.29/- pmt extra totaling ₹339.19/- pmt in addition to storage charges beyond free period. The free period being offered under the arrangement is only 25 days and after the completion of the free period, charges ranging from ₹1.39 pmt/day to ₹2.77 / pmt / day will be imposed depending on storage period. SAIL is of the view that 25 days is a short period keeping in view of time required for customs clearance and other associated works to make the cargo ready for dispatch. Normally, 2/3 days are required to obtain out of charge from customs before actual movement can be made. Thereafter some more time may be required to start evacuation due to delayed supply of railways rakes (for rail borne cargo). In practice, users may be getting less than 3 weeks to evacuate entire cargo in free period. It is felt that free period may be increased to minimum 30 days.			As per 2008 Tariff Guidelines, the Storage charges are levied for storage of coal at the yard beyond allowable period of 25 days. In view of the same as well as considering the average dwell time of cargo at HDC as 35 days, free storage period of 25 days has been considered for the tariff fixation. This is however ceiling rate and the Operator will have freedom to charge lower rate.
(b).	The performance standard envisaged under the project is Gross Berth Output. It is proposed that based on performance standard, the concessionaire is free to propose increased tariff (performance linked tariff) above the indexed tariff (max by 15%) from second year onwards. Since the envisaged project is a composite end to end solution, performance standards should to be fixed based on parameters linked to all legs of operations viz. discharge performance till loading of wagons. SAIL would like to suggest that HDC should be in a position to guarantee minimum loadability of wagons			The performance standard envisaged under the project is Gross berth Output. However, the indexation of Tariff is as per Tariff guideline. The silo based loading system has been considered in the design to ensure both speedy loading as well as ensuring utilising the carrying capacity of the wagons to the extent it is feasible. However, this aspect would also be

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP
	(the carrying capacity / chargeable weight of the wagons) so that the users are not penalized towards idle freight. Similarly, the railway rakes also have to be loaded within the permissible time of railways to avoid demurrage liability on the users.	covered through a conditionality in the Concession Agreement. The Concession agreement will have a provision that in case of accrual of any demurrage as per SE Railways rules due to delay in releasing of any rake by the Concessionaire; the Concessionaire will be obliged to compensate the Importer for the same in full within 30 days of demand being made by the Importer.
(c).	It is observed that the scope of work indicated for undertaking handling jobs at berth no. 2 in a comprehensive manner does not cover certain essential elements of dry bulk handling as narrated below: (i). Stock accounting of receipt and despatch of cargo and compensation towards loss of cargo beyond permissible handling loss as per industry norms. (ii). Loading of wagons as per carrying capacity of wagons in line with railway guidelines. (iii). Covering of wagons by tarpaulin as per railway / RPF guideline. (iv). Railway rake indenting. (v). Pasting labels on wagons for identification of cargo. (vi). Storage of cargo grade wise to avoid contamination at the stacks. The above elements are not specifically incorporated in the scope of work but necessarily carried out by the terminal operators to complete handling operation. HDC should clarify the point and make suitable provision in the terms of handling. In view of the general requirements of any user to handle dry bulk cargo at ports, HDC may be advised to frame schemes covering all elements of operation and not restricting their offer to a truncated service. In other words, the users have to any way make arrangement with HDC appointed contractor through a negotiation process by incurring additional expenses. It is, therefore, requested that TAMP may direct HDC to design a comprehensive scheme taking care of general requirement of dry bulk cargo handling at the proposed berth.	The HDC shall adhere to all Circulars/Guidelines/Office Orders of Railway Board issued from time to time pertaining to rail borne cargo handling. The points highlighted herein by M/s SAIL for undertaking handling jobs at berth no 2 (dry bulk handling) are being carried out at HDC in compliance to statutory provisions of Railway Board/SE Railway/eastern railway in letter & spirit. Therefore, detailed handling procedures are not mentioned, since they are the standard provisions/conventional methods which has binding effect on any terminal operator/Port. The same provision may be incorporated in concession agreement. The TAMP application has been proposed comprehensively as per Guidelines for upfront tariff setting for PPP Projects at Major Port Trusts, 2008 for Services Rendered At Coal Terminal.

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP										
	The charges in Haldia Port are higher compared to neighboring Major Ports. Since steel industry is mainly located in eastern region and heavily dependent on HDC, TAMP may consider more competitive operational rates at HDC. This will encourage large importers like SAIL to handle more volume through HDC.											
III.	M/s. Orissa Stevedores Limited [OSL]											
(a).	The RFQ documents - including the Project Report (page nos. 22 and 23) and the TAMP Application of the Port Authorities (Page no.33) do mention about commodities such as Thermal Coal, Iron Ore and Iron Ore Pellets whose unit rate PMT has been stated in the later which are mostly for exports by trend and not for import.	No comments have been furnished by SPMP.										
(b).	The proposed mechanization of Berth No.2 (erstwhile berth No.3) makes the berth predominantly an import terminal with sparse room for conventional mode of export cargo loading by dumpers using the proposed grab unloaders (which can also load) and/or by slings using ships gear.											
(c).	If the Port Authorities shall permit exports by conventional mode to happen from this terminal to the extent the terminal operator can operate as safely as possible and whether or not the given tariff at Page no.33 of the TAMP Application shall apply.											
(d).	During congestion/bunching of export vessels and on terminal operator's own initiative, export cargo can be a possibility											
IV.	M/s. Adani Ports and Special Economic Zone Limited [APSEZ]											
(a).	Storage charges Authority has considered in tariff proposal of the project that 70% of the traffic will be evacuated in the first 25 days, 20% cargo will be evacuated in the next 5 days and while balance cargo will be evacuated in another 5 days. Hence, total cargo will be evacuated in 35 days. However, generally traders take more than 50 days for evacuation of the cargo from the port. Hence we suggest that calculation of the storage charges should consider following slabs as given below: <table><tr><td>Cargo evacuation in each slab</td><td>Free Period</td><td>Slab 1</td><td>Slab 2</td><td>Slab 3</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	Cargo evacuation in each slab	Free Period	Slab 1	Slab 2	Slab 3						As per the record at HDC, the average dwell time is 35 days and not 50 days. In view of the above, we have considered 35 days of dwell time and the calculation of the storage charges has been done as per method prescribed in different Tariff order of TAMP.
Cargo evacuation in each slab	Free Period	Slab 1	Slab 2	Slab 3								

Sl. No.	Comments received from Users / Prospective bidders					Reply of SPMP
	Authority's Assumption					
	No of Days	25	5	5		
	% Cargo in each Slab	70%	20%	10%		
	Quantity in each slab (in MT)	2,620,800	748,800	374,400		
	APSEZ Assumption					
	No of Days	25	5	5	15	
	% Cargo in each Slab	70%	15%	10%	5%	
	Quantity in each slab (in MT)	2,620,800	561,600	374,400	187,200	
	We understand that cargo in current slab will start evacuating from day 1 and on the last day of the all the cargo of that slab will be evacuated. Cargo of the subsequent slab will not be evacuated. Hence for calculation of cargo quantity which will attract storage charges will the average of the cargo on the 1st day and last day of that particular slab plus full cargo of all subsequent slabs. For example					
	Qty in MT	Slab 1	Slab 2	Slab 3	Total Chargeable Qty for storage Charges	
	No of days	5	5	15		
	Qty in each Slab	1000	500	100		
	Chargeable qty for next 5 days after free period	=Average (1000,0) =500	= 500	=100	=500+500 +100 =1100	
	Chargeable qty for 6th to 10th days after free period		=average (500,0) = 250	100	=250+100 =350	
	Chargeable qty for 11th to 25th days after free period			=average (100,0) =50	=50	
	Based on the above, we suggest to have following storage charges for each slab fulfilling the annual					

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP																																																																														
	revenue requirement INR 1.23 Crore as given below: <table><tr><th colspan="6">APSEZ Working for calculation of Storage Charges Berth No 2</th></tr><tr><th>Particulars (Qty in MT)</th><th>Free days</th><th>Slab 1</th><th>Slab 2</th><th>Slab 3</th><th>Total</th></tr><tr><td>Optimum Capacity (MT)</td><td colspan="5">3,744,000</td></tr><tr><td>Days in each slab</td><td>25</td><td>5</td><td>5</td><td>15</td><td></td></tr><tr><td>%age of cargo in each slab</td><td>70%</td><td>15%</td><td>10%</td><td>5%</td><td>100%</td></tr><tr><td>Qty in each slab</td><td>2,620,800</td><td>561,600</td><td>374,400</td><td>187,200</td><td>3,744,000</td></tr><tr><td>Chargeable Qty (Average of Qty evacuated in current slab + cargo which will be evacuated in subsequent slabs) (MT)</td><td></td><td>842,400</td><td>374,400</td><td>93,600</td><td></td></tr><tr><td>Weights assigned</td><td></td><td>1.0</td><td>1.5</td><td>2.0</td><td></td></tr><tr><td>Weighted Qty in each slab (Chargeable Qty X Weight Assigned) (MT)</td><td></td><td>4,212,000</td><td>2,808,000</td><td>2,808,000</td><td>9,828,000</td></tr><tr><td>Revenue requirement (INR)</td><td></td><td></td><td></td><td></td><td>12,319,334</td></tr><tr><td>Avg Tariff INR per MT per day</td><td></td><td></td><td></td><td></td><td>1.25</td></tr><tr><td>Tariff for each slab INR per MT per day</td><td></td><td>1.25</td><td>1.88</td><td>2.51</td><td></td></tr><tr><td>Revenue for each slab INR</td><td></td><td>5,279,715</td><td>3,519,810</td><td>3,519,810</td><td>12,319,334</td></tr></table> Our proposed storage charges is lower than the Authority's storage charges which will help the customers in the long term without impacting the terminal capacity and revenue thereby making the terminal more competitive. We have attached the excel sheet of our assumption and calculation for reference.	APSEZ Working for calculation of Storage Charges Berth No 2						Particulars (Qty in MT)	Free days	Slab 1	Slab 2	Slab 3	Total	Optimum Capacity (MT)	3,744,000					Days in each slab	25	5	5	15		%age of cargo in each slab	70%	15%	10%	5%	100%	Qty in each slab	2,620,800	561,600	374,400	187,200	3,744,000	Chargeable Qty (Average of Qty evacuated in current slab + cargo which will be evacuated in subsequent slabs) (MT)		842,400	374,400	93,600		Weights assigned		1.0	1.5	2.0		Weighted Qty in each slab (Chargeable Qty X Weight Assigned) (MT)		4,212,000	2,808,000	2,808,000	9,828,000	Revenue requirement (INR)					12,319,334	Avg Tariff INR per MT per day					1.25	Tariff for each slab INR per MT per day		1.25	1.88	2.51		Revenue for each slab INR		5,279,715	3,519,810	3,519,810	12,319,334	
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(b).	License Fee Authority has proposed for the following license fees for the land for the project: • Bare land Lease Rental as on Oct 2020: INR 28.45 per sq.m. per month	The rate of License fee is as per the rent scheduled approved by TAMP.																																																																														

Sl. No.	Comments received from Users / Prospective bidders	Reply of SPMP
	Hard Stand & Jetty Area Lease Rental as on Oct 2020: INR 44.23 per sq.m. per month Above license fees will be escalated @ 2% per annum and the license fees for bare land will be about INR 30.19 per sq.m. per month and hard stand will be INR 46.94 per sqm per month when the terminal will commence operation in 2023. We would like to suggest that the proposed rate of License fee for both bare land and hard stand is very high and it should be reduced appropriately so that it does not become undue burden for the concessionaire.	

2. In view of the outbreak of COVID – 19 and in pursuance of the Ministry of Shipping (MOS) letter No. 11053/30/2020-Coord. dated 16 April 2020 to hold virtual meetings, a joint hearing on the case in reference was held on 24 November 2020 through Video Conferencing. At the joint hearing, SPMP made a brief power point presentation of its proposal. The SPMP and the users/ prospective bidders have made the following submissions during the joint hearing:

SPMP

- (i). This berth was iron ore handling berth in 1977. Iron ore cargo did not fructify. We were handling liquid cargo in small quantity in this berth. It has been decided to take up the project of mechanisation of berth No. 2 on DBFOT basis so as to handle dry bulk cargo. Though the RFQ was invited in June 2019, no financial bid (RFP) was received till the bid due date from four qualified bidders. Finally, RFQ was discharged.
- (ii). Thereafter, based on the subsequent discussion with the prospective bidders and other port users, the technical specification of the project viz review of capacity of the equipment, additional land, dwell time, royalty and construction period etc. has been reviewed.
- (iii). Thus, HDC has made suitable changes in the project. We have reduced the costs so that the project is viable. The estimated cost of the project has also undergone a change, so as to make the project attractive. There has been a reduction in capital cost from ₹ 331.94 Crores to ₹ 298.26 Crores due to revised specifications. The RFQ has now been re-invited on 01 October 2020. Project is being monitored by PMO / MOS on weekly basis.
- (iv). Length & Width of the jetty is 337 m and 15.5 m respectively. Out of the total area for the project at 2,11,640 sq m., the Stock pile area is 1,00,000 sq.m. Coal, coke, limestone, thermal coal, iron ore & iron ore pellets and other suitable dry bulk cargo are envisaged to be handled at the proposed facility.

80% of the cargo is envisaged to be evacuated through rail and the balance 20% through road

- (v). The yard capacity of the project has been calculated considering dwell time of 35 days, which is based on the present trend at HDC. It is workable dwell time. It is noteworthy that in the PPP projects of other major ports, reduced dwell time has created problems.
- (vi). Civil capital cost has been estimated at ₹ 74.96 cr, Equipment cost at ₹ 181.80 cr and other mechanical costs at ₹ 27.30 cr, thereby aggregating to ₹ 298.26 cr. Operating cost has been estimated at ₹ 75.47 cr.
- (vii). Considering the Operating Cost and 16% return on capex, the Revenue Requirement is estimated at ₹ 123.19 cr. The said revenue requirement has been apportioned towards handling, storage and miscellaneous charges at 98:1:1. The cargo handling rate works out to ₹335.90 per MT and the miscellaneous charge at ₹ 3.29 per MT.
- (viii). As regards storage charges, It is expected that only 70% of the cargo will be evacuated within 25 free days and the balance 30% cargo will attract the storage charges beyond the free period. Detailed calculation has been given in our proposal to arrive at the proposed storage charges of ₹ 1.39 per MT per day in the 1st slab after free days. The storage charges for the 2nd and 3rd slab are prescribed at 1.5 times and 2 time the 1st slab.

Adani Port & SEZ

- (i). We feel that the calculation of storage charge needs to be reviewed by considering correct parameters. We feel that some cargo may stay even after the 3rd slab. Consider correct quantity for each slab.

[HDC: If you have any suggestions on the matter, it can be looked into.]

- (ii). The handling charges and the miscellaneous charges are in line.
- (iii). We can give our comments on the above aspects.

[Member (F), TAMP: Please forward your comments within 7-10 days to HDC with a copy marked to TAMP.]

Sarat Chatterjee & Co.

- (i). We have already furnished our comments.

- (ii). The capital expenditure estimated by the port is not holistic. Some cost components have not been considered. We have given a detailed note on this aspect in our comments.

[HDC: We have captured all the costs. We have considered Budgetary offers and considered lowest cost. Anyway, we will look into the comments of Sarat Chatterjee & Co.]

Orissa Stevedores Association

- (i). The cargoes envisaged to be handled at the proposed facility are Coal, coke, limestone, thermal coal, iron ore & iron ore pellets and other dry bulk cargo. Of these, cargo like iron ore & iron ore pellets are export oriented and others are import oriented. Whether the proposed facility can handle both import and export cargo.

[HDC: The project is for a 30 year period. All dry bulk cargo are envisaged to be handled at the facility as per new MCA irrespective of whether they are export/ import oriented.]

Sarat Chatterjee & Co.

- (i). The proposed facility is basically for a terminal for importing Coal. It is, therefore felt not possible to handle iron ore, for export.
- (ii). In the yard capacity calculation, a stack height of 5.2 has been considered. It is to be noted that the proposed facility is envisaged to handle all types of dry bulk cargo. The said stack height of 5.2 is possible only with respect to coal but not for others.
- (iii). The capacity of the facility has been worked out to 3.74 MMT. 28000 tonnes is the average cargo carried by a vessel. This results in about 135 Vessels. However, considering the tidal constraints, impounded docks and the operating days, only 100 Vessels is possible. Keeping a cushion of 10%, it works out to about 110 Vessels. Thus, the capacity of the proposed facility should be considered at 3 MMT. Tariff below ₹400 per tonne is not viable.

SAIL

- (i). We have already given our comments.
- (ii). The scope of activities covered under the levy of Miscellaneous charges should be listed down explicitly and exhaustively. In the absence of such an explicit and exhaustive list, the terminal operators refuse to render all the services and the users are made to fend for themselves. The scope of

services covered under the levy of Miscellaneous charges should, therefore, be notified by TAMP.

[HDC: We will look into this aspect. We have received comments of SAIL. We are examining.]

Essar Ports Ltd.

(i). We will give our comments in writing.
