

**Budgetary offer for setting up of 8 MVA , 6.6/11KV Shore supply system for Cruise vessels as per IEC/IEEE 8005/IMO standards**

| No. | SITC ITEM                                                                     | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit | Qty    | Amount in Rs. |
|-----|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|---------------|
| 1   | Bay Extension at 110KV SS                                                     | Bay Extension in the existing 11kV HT Panels at the 110kV Receiving station and Installation of <b>3</b> numbers Circuit breaker Panels, 1 no. Bus Raiser, 1 no. bus Coupler and associated cabling in HT including Metering Monitoring and Protection system integrated to the existing panels and associated Cabling in LT auxiliary and control power supply including jointing and termination of cables.                                                   | SET  | LUMSUM |               |
| 2   | 3CX33 kV HT cable (UE) laying from 110KV SS to OPS SS at Berth E/wharf.       | SITC of the Cabling through HDD (1500 M), open trench (400m), HDPE pipe 200 CM, RCC trench 1300 M, HDPE pipe along Channel with supports etc, at side of road path way/ Arborway in bristow road near to canal (800M) from 110 kV Main Receiving Station to the proposed substation near International Cruise Terminal with approximately <b>3.1 km</b> , 3 Runs of 3C x 400 sq.mm 33kV grade (UE) XLPE UG Cables including jointing and termination of cables. | SET  | LUMSUM |               |
| 3   | Cable joint, End termination for 33kV, 11kV cables etc. as required           | SITC of Jointing and Terminations of each cable                                                                                                                                                                                                                                                                                                                                                                                                                 | SET  | LUMSUM |               |
| 4   | Substation Building as per design as required.                                | Design and Construction of Substation building near International Cruise Terminal with all civil works, electrical works including wiring, DB's, switches, fans, light fixtures etc. involved including Cable trenches and amenities, Control/office room, Store area.                                                                                                                                                                                          | SET  | 1      |               |
| 5   | HT Installations and Earth switch etc. at OPS SS, as per dsegin requirements. | SITC of HT panels / HV Circuit breakers, Cast Resin Transformers, Distribution system earthing as per standards etc as per IEC 619361 at the proposed new substation. Installation of Shore-side circuit-breaker and earth switch for providing HVSC System as per IEC ISO IEEE 80005                                                                                                                                                                           | SET  | LUMSUM |               |
| 6   | Backup supply / Battery charger/ UPS                                          | SITC of necessary battery backup for the station control system. 24VDC and 110 V DC Battery Chargers and Distribution boards along with Battery Packs. Etc.                                                                                                                                                                                                                                                                                                     | SET  | LUMSUM |               |
| 7   | Power transformers/ Isolation transformers.                                   | SITC of Cast Resin Power Transformers for providing HVSC System as per IEC ISO IEEE 80005-1                                                                                                                                                                                                                                                                                                                                                                     | SET  | LUMSUM |               |
| 8   | Power converters (SFC) and connected Accessories                              | SITC of Power Converters for providing HVSC as per IEC ISO IEEE 80005-1                                                                                                                                                                                                                                                                                                                                                                                         | SET  | LUMSUM |               |

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| 9  | Protection Relay/ Control system/ Communication equipments etc.                                                 | SITC of Shore Side Protection Relaying / Control system for providing HVSC System as per IEC ISO IEEE 8000-1                                                                                                                                           | SET  | LUMSUM |  |
| 10 | SCADA, RTU (dual system etc.), Energy Management system, Smart meter, Communication Cables as per requirements. | SITC As per IEC ISO IEEE 80005- I for providing HVSC System.                                                                                                                                                                                           | SET  | LUMSUM |  |
| 11 | HT/LT / Communication cabling towards berth OPS panel.                                                          | HT/LT / Communication cabling inside substation, from SS to Shore supply etc.panels.(Requirements for HVSC systems)                                                                                                                                    | SET  | LUMSUM |  |
| 12 | Mobile Cable Management System for HV OPS                                                                       | SITC of Shore to ship connection and interface equipment including Cable Management System and Connectors for providing HVSC System as per IEC ISO IEEE 80005-1                                                                                        | Nos. | 3      |  |
| 13 | 3 MVA, 11 KV, Raw power to Q6 berth area                                                                        | Providing shore power cable 50 Hz frequencies with capacity of 3 MVA to Q6 area and SITC of 3 Panel VCB SF6 RMU with FRTU, fault passage indicators, VPI etc. as per the latest IEC standard.                                                          | SET  | LUMSUM |  |
| 14 | Aux Transformer                                                                                                 | Installation of 1 number Cast Resin Transformer 11kV/433V 50Hz for Substation use and 1 number of Cast Resin Transformer 11kV /433V 50Hz for Auxiliary systems.- AC's, Station Control supply, , lighting and accessories/ Auxilliary power etc.       | Nos. | 2      |  |
| 15 | MV/LT Panels with fire suppression as per design.                                                               | Installation of LT power / Auxiliary panels, APFC, Distribution Board etc. for OPS system and building related amenities.                                                                                                                              | SET  | 1      |  |
| 16 | High Voltage Shore supply Panels as per design and requirements.                                                | <b>3 nos</b> - High Voltage Shore supply Panels ( SS 316-L) at Berth with power and communication sockets etc.for taking power to MCMS system for giving supply to cruise vessels etc. with necessary HV and Communication sockets etc. as per IEC/IMO | Nos. | 3      |  |
| 17 | Fire and Safety equipments                                                                                      | Fire protection systems and safety equipments, Gas/ Sprinkler lines, Fire alarm systems, fire fighting, fire hydrant lines, fire extinguishers, PA system                                                                                              | SET  | LUMSUM |  |

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| 18   | HVAC/Lighting /CCTV/ VHF/ Telephone and other Auxiliary systems                                                    | HVAC/Lighting /CCTV/ VHF/ Telephone and other Auxiliary systems etc. as per requirements.                                                                                                                                                               | SET      | LUMSUM |  |
| 19   | Chemical Earthing, Lighting Arrester, ESE, and terminations of HT/LT equipments as per standards and requirements. | Earthing and terminations of HT/LT equipments as per requirements.                                                                                                                                                                                      | SET      | LUMSUM |  |
| 20   | Cable laying works along the berth Trench works.                                                                   | For laying cables from shore supply Substation towards the berth OPS Panels for taking supply to MCMS , RMU at Q6 berth ( Appro. 600 M from OPS SS ) etc. after removing the slabs etc. in the existing trench as per the requirements along the berth. | 3 SET    | LUMSUM |  |
| 21   | Misc works if any                                                                                                  | Other related Works, approvals etc,                                                                                                                                                                                                                     | LUMSUM   | LUMSUM |  |
| 22   | Operation & Maintenance                                                                                            | Charges for the Operation for 7 years and Comprehensive AMC of the entire system for five years after the expiry of 2-year guarantee period                                                                                                             |          | LUMSUM |  |
| 22.1 |                                                                                                                    | Charges for the Operation -1st year                                                                                                                                                                                                                     | Per Year | LUMSUM |  |
| 22.2 |                                                                                                                    | Charges for the Operation - 2nd year                                                                                                                                                                                                                    | Per Year | LUMSUM |  |
| 22.3 |                                                                                                                    | Charges for the Operation for 3rd year and Comprehensive AMC of the entire system for five years after the expiry of 2-year guarantee period                                                                                                            | Per Year | LUMSUM |  |
| 22.4 |                                                                                                                    | Charges for the Operation for 4 th year and Comprehensive AMC of the entire system for five years after the expiry of 2-year guarantee period                                                                                                           | Per Year | LUMSUM |  |
| 22.5 |                                                                                                                    | Charges for the Operation for 5 th year and Comprehensive AMC of the entire system for five years after the expiry of 2-year guarantee period                                                                                                           | Per Year | LUMSUM |  |
| 22.6 |                                                                                                                    | Charges for the Operation for 6th year and Comprehensive AMC of the entire system for five years after the expiry of 2-year guarantee period                                                                                                            | Per Year | LUMSUM |  |

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| 22.7 |  | Charges for the Operation for 7 th year and Comprehensive AMC of the entire system for five years after the expiry of 2-year guarantee period | Per Year | LUMSUM |  |
| 23   |  | Total amount excluding GST and Taxes.                                                                                                         |          |        |  |
| 24   |  | Taxes and duties if any                                                                                                                       |          |        |  |