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TYPE OF DOC.	TECHNICAL SPECIFICATION			SIGN	<i>Ashish</i> 30/08/13	<i>Prabhu</i> 30/08/13	<i>Ravi</i> 30/08/13
TITLE CABLE TRANSIT SYSTEM				NAME	AJ	SS	AG
				DATE	30.08.13	30.08.13	30.08.13
				GROUP	TBEM	W.O. No	80014
CUSTOMER	Power Grid Corporation of India Ltd						
PROJECT	±800KV, 6000MW, HVDC MULTI-TERMINAL NER/ER – NR/WR INTERCONNECTOR-I PROJECT						
CA NO.	C-61901R-S056-8/CA-II/3660 dated 22.12.2011 for On-Shore Supplies & C-61901R-S056-8/CA-IV/3662 dated 22.12.2011 for Services						
STATION	AGRA						
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SECTION-1

Scope, Quantities & Specific Technical Requirements

1.1 Scope

The scope of work includes design, engineering, manufacturing, assembly, testing before supply, inspection, packing, loading at works, transportation to site of **CABLE TRANSIT SYSTEM (also known as cable sealing system)** including all the required items and accessories as mentioned in this section and in various other sections of this specification to Agra site. The scope of work also includes training & supervision of ETC at Agra site.

Name of customer: Power Grid Corporation of India Ltd (POWERGRID)

Name of the project: ±800KV, 6000 MW, HVDC Multi-Terminal NER/ER–NR/WR
Interconnector-I Project

Project Site: Agra (AG)

1.2 Bill of Quantities

LOA BOQ REF.	ITEM DESCRIPTION	QUANTITY
BB.II.A.25.5, BBII.E.15.5	Cable Transit System	1 LOT
CC.II.A.25.5	Cable Transit System	1 LOT

Vendor shall provide detailed bill of quantity (defining 1 LOT) required meeting the complete functionality of the specification.

1.3 Specific technical requirements

a. Test Requirement

1. Cable sealing system should have been type tested for fire / water / smoke tightness. Test certificate as per relevant Indian/ international standard shall be provided for BHEL/POWERGRID approval.
2. Test certificate for fire resistance integrity performance with a duration of 3 hours.

b. Documents to be provided by bidder with quotation

- Drawing of frame with marking of cable sealing modules & accessories as per TS requirement.
- Technical datasheet/Catalogues/brochures of the item



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INTERCONNECTOR-I PROJECT**

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- Clause-wise compliance
- Test certificates as per relevant standards

c. Drawing/Document Requirement in the event of order

- Relevant installation manual.
- Engineering documents/ drawings for customer approval.
- Type test certificates.
- Operation & maintenance manual meeting customer specification & application.



SECTION-2

Equipment Specification

2.1 CABLE TRANSIT SYSTEM

2.1.1. Modular Multi-diameter Cable sealing system consisting of frames, blocks and accessories to be installed wherever the electrical / instrumentation / communication cables underground and over-ground enter or leave bay kiosks / control rooms / substations. Cable sealing to be with Multi diameter type peel-able roxylon blocks of different sizes (20: 4mm to 14.5 mm ,30 : 10mm to 25 mm ,40: 21.5mm to 34.5mm , 60: 28mm to 54 mm , 90: 48mm to 71 mm , 120 : 67.5mm to 99 mm) to be provided for simple, easy and quick to assemble & re-assemble. 30% spare block on the frame to be provided with usable Multi-diameter blocks with center plug, so that these spare blocks can be used for expansion in future for wide range of cables, solid blocks should not be used on frame. Cable sealing system should have been type tested for fire / water / smoke tightness and supplier shall have local presence by way of full infrastructure having service support, training support and stocks support and also have necessary sales support for any change / extension in future. Frames & stay-plate material should be galvanized steel and for compression single piece wedge with galvanized steel bolts should be used. Fire barrier material for sealing of cable entry points into the building shall fulfill a fire resistance integrity performance with duration of 3 hours.

2.1.2. Building wise list of cables (Annexure 1)



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SECTION-3

GENERAL TECHNICAL REQUIREMENTS

Please refer Document **TB-343-316-000** for General Technical Requirements.