

NIT No.: DL/OT/2022-23/22N31 Dt. 27.04.22				
/ OF 33kV, 11kV FAULT PASSAGE INDICATOR & OTHER ACCESSORIES in TPNODL Area				
Sr. No.	Detailed Reference to TPNODL Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	TPNODL Remark
1	2	3	4	4
1	Page 5 of 84: Point No 1.1	Scope of work	We understand that our scope will be limited to supply of - 11kV & 33KV O/H Communicable & Non Communicable FPI, DCU and associated equipments as mentioned in the technical specification only. Installation & comissioning of FPI, DCU & associated equipments are not in our scope. Please confirm.	Installation and Commissioning not in Bidders scope. But the bidder shall arrange to provide the installation and operating training at TPNODL, BALASORE offices as and when required for better installation and usage of the product.
2	Page 5 of 84: Point No 1.1	FAULT PASSAGE INDICATOR(FPI)11KV NON COM, FAULT PASSAGE INDICATOR(FPI)33KV NON COM	We may propose to consider Communicable FSI for the entire requirement. So that these can be integrated to DCU in a later date as per system demand. This will also optimize inventory & spare management at TPNODL side.	Both communicable and non-communicable type FPI required as per Tender Doc.
3	Page No 25 of 84, Point No VII	Average wind speed prevailing in the area 200kmph	Since it's a O/H equipment, it is recommended that offered product should be tested for wind speed upto 200 km/hr.	OK
4	Page No 25 of 84, Point No 2	Application - Product shall be suitable for application on overhead lines of different size conductors and ABC	Our offered solution is suitable for application on overhead lines of different size conductors of dia 5mm to 25mm. Aerial bunch cables run together. It is not possible to mount one FPI on a phase cable of ABC. Please consider the same.	OK
5	Page No 25 of 84, Point No 8	Conformal coating: The relay PCB should have conformal coating	We assume conformal coating is required for PCB of the FPI.	Conformal coating required for PCB of FPI
6	Page No 25 of 84, Point No 9	Current setting Trigger value: 100 A to 800 A steps of 100 A and Manually or Automatic Mode Can be set on site or remotely.	It is always recommended to have fixed manual setting (rather than automatic setting) based on fault setting of the patricular feeder as load current is always tends to vary over situation. Please confirm. Our proposal - Current setting Trigger value shall be 75 A to 1500 A steps of 100 A and Manually Can be set on site or remotely. Wider setting range is suitable for most of the feeders.	OK
7	Page No 25 of 84, Point No 11	Minimum fault current impulse filter time: 60 to 300 ms (To filter inrush current)	We assume this is response time. For us response time is 2 ±1 cycle and not configurable. Please accept the same.	FPI should not maloperate during inrush this is formost requirement

8	Page No 26 of 84, Point No 12	Beacon Flash Indication Duration (user settable): 30 min to 720 min in steps of 30 min. Manual/Site/Remote Settable	Our proposal - 120 min to 960 min in steps of 30 min. Manual/Site/Remote Settable. Settable longer blinking duration will be helpful for patrolling team to identify the fault location. And also FSI have remote reset option in case the fault is identified in SCADA control centre. Voltage based reset is also available to reset the device once the power is restored.	OK
9	Page No 26 of 84, Point No 13	Inrush transient restraint: 2 sec	It is recommended to have higher time setting to blocks the fault detection due to magnetization during the voltage restoration on the MV overhead line.	OK
10	Page No 26 of 84, Point No 15	Pre-set Timer Reset: 30 min to 360 min in steps of 30 min – Manual/Site/Remote Settable	Our proposal - 120 min to 960 min in steps of 30 min. Manual/Site/Remote Settable.	OK
11	Page No 26 of 84, Point No 17	Fault Indications a. Bright Red flash light (LEDs) for permanent faults, b. Preferably Green LED for transient fault with different blinking rate c. Preferably Yellow LED for low battery indication	Our proposal a. Bright Red flash light (LEDs) for permanent faults, b. Preferably Green LED or separate blinking pattern for transient fault & low battery Indication. Separate binking patterns available for temporary fault, permanent fault and low battery. RED LEDs help to have longer visibility. All these information can be integrated to SCADA.	Separate color indication required for low battery indication
12	Page No 26 of 84, Point No 22	Standard total flash duration: Min. 1000 Hrs under permanent fault operation	We request to consider 7.5 years of life with 1000 hours of flashing. However, if Energy Harvesting is active for over 30% of time (ie over 30% of time currents are above 60A), we would be able to reach 10 years of life.	ok
13	Page No 26 of 84, Point No 24	Internal Battery of FPI: Lithium Ion rechargeable battery	We request to consider Lithium Ion non-rechargeable battery. Rechargeable batteries are normally used for high power drain devices. SICAM FSI is a low power drain device and with non-rechargeable battery we claim 7.5 years of life with 1000 hours of flashing.	OK
14	Page No 27 of 84, Point No 33	FPI power up current: FPI should be powered up with Minimum 20A line current & battery power shall be used only after fault	FSI is armed & ready to detect fault from 0A. The Energy Harvesting which start from 60A only reduces the dependency of batteries. 7.5 years of life with 1000 hours of flashing. However, if Energy Harvesting is active for over 30% of time (ie over 30% of time currents are above 60A), we would be able to reach 10 years of life.	OK

15	Page No 27 of 84, Point No 38	Line Loading data: FPI should transmit real time line loading (phase wise), fault data to Purchaser's SCADA System through in built 4G/MPLS modem over IEC60870-104 protocol and MQTT.	FPI should transmit fault data spontaneously and line loading (phase wise min, max, avg and inst for the selected wireless reporting time), based on site selectable wireless reporting time configuration to Purchaser's SCADA System. IT is recommended to transfer data periodically from FPI to DCU to save internal battery of the FPI.	OK
16	Page No 28 of 84, Point No 43	DCU Self-diagnostic Alerts DCU Door open alarm, Battery charger failure, LT Supply failure, Battery low alarm. (Local and on SCADA System)	We are proposing 03 alarms as below: 1. DCU Door open alarm, 2. Battery charger failure & Battery low alarm. 3. LT Supply failure, . PI confirm.	OK
17	Page No 28 of 84, Point No 45	Installation supervision: The bidder shall provide installation supervision	Please confirm how days are required for installation supervision. We prefer to have one time supervision for 3 to 4 days along with utility team.	Minimum 5 days required for installation supervision. Also Bidders need to provide Installation and Operating training to TPNODL team after award of the contract.
18	Page No 28 of 84, Point No 46	SCADA integration of data. The scope shall include integration of field device with Purchaser's SCADA System.	Please confirm for how many units integration & supervision support is required. We prefer to provide 10 sets of FPI randomly selected feeders by utility.	As many nos. of communicable FPI
19	Page No 30 of 84, Point No 5.6.1	The FPI shall be supplied along with suitable Remote Control Unit, having a LCD display , common for all the Overhead Fault Passage Indicator. The supplier shall supply one number of Remote Control Unit free of charge along with every 9 numbers of FPIs.	Offered equipment supports WEB GUI feature to take care of programming & necessary supervision & monitoring features.	As per tender document

20	Page No 30 of 84, Point No 5.6.3	The settings for the FPI shall be settable at site, without dismantling the FPI from the line. Following parameters shall be settable at time. o Trip Current o Response Time o Reset Time o Turn On / Off indication for Transient Faults o Turn On / Off auto-reclosure support function	response time for offered product is fixed. Please accept the same.	ok. FPI should not maloperate during insrush this is foremost requirement. If due to default setting of Response time , if there is maloperation it will not be acceptable.												
21	Page No 30 of 84, Point No 5.7.4	5.7.4 It shall be supplied by the single phase potential transformer kit (PT) + battery block installed above it on the same pole.	As per 5.7.4 only PT is considered however as per point no 5.8 PT or solar panel is considered. Please confirm if PT will be considered only. Also confirm total hours of battery back up. We are recommending PT as availability of sunlight will be less during monsoon season which is considered to have maximum no of faults. Also For solar panel Battery back up always will be on higher side (12+ Hours minimum)	PT will be considered. Total 10 hour of battery Back-up required -												
22	Page No 31 of 84, Point No 5.8	This kit shall be composed of a PT or solar panel and rechargeable battery. It														
23	Page No 15 of 84, Annexure -I	Schedule of Items	DCU Qty is not mentioned. Please confirm the same	<table border="1"> <thead> <tr> <th>SL NO</th> <th>DESCRIPTION</th> <th>NOS OF</th> <th>DCU REQ.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>11KV COMMUNICABLE FPI</td> <td></td> <td>30 NOS.</td> </tr> <tr> <td>2</td> <td>33KV COMMUNICABLE FPI</td> <td></td> <td>50 NOS.</td> </tr> </tbody> </table>	SL NO	DESCRIPTION	NOS OF	DCU REQ.	1	11KV COMMUNICABLE FPI		30 NOS.	2	33KV COMMUNICABLE FPI		50 NOS.
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