

ANNEXURE-1

LIST OF EQUIPMENT LOT-9

Sl. No.	Description	Quantity Nos	Recommended Make
1	Cable Fault Locator	1	Megger/Scope/Telemetry

ANNEXURE-18

1. TECHNICAL SPECIFICATION FOR CABLE FAULT LOCATOR

Sr. No	Specification	Yes/ No
1	The fault locating system should be capable of locating all types of permanent and transient faults, core to core shorts, core to earth shorts, high impedance faults, core breaks, flashover etc. in underground cables rated up to 11kV.	
2	The system shall be microprocessor controlled menu guided and centrally operated to allow for easy operation	
3	The control should be capable of guiding the operator through the testing, burning, pre location and pinpointing modes and all of these should be in one single control unit	
4	Electrical Specifications	
4.1	Input Voltage:	
	Charger Input 230V, 50 HZ	
4.2	Output ratings:	
4.2.1	Central Control of all functions by the TDR Display	
4.2.2	Single Button operation, with the exception of safety related functions as HV ON / OFF	
4.2.3	Alternative central control of all function by PLC operation	
4.2.4	Hipot range: 0-16 KV DC digital read out of voltage and current.	
4.2.5	Capacitive Discharge:0-4 KV/0-8 KV/0-16KV	
4.2.6	Minimum Energy:1000 joules at 4/8/16kV	
4.2.7	Thump Interval: Variable from 1 to 8 seconds or single shot.	
4.2.8	System should be suitable for Testing, burning, HV pre-location methods and pinpointing.	
4.2.9	Burning: 4 kV,8 kV, 16 kV	
4.2.10	Sheath Fault location: up to 5 kV	
5	TDR Specifications	
5.1	Input	230 V/50 Hz or inbuilt battery
5.2	Measuring range (Distance)	0 to 10 Km or better
5.3	Pulse width	from 40nS – 3.5uS or better
5.4	Sampling Rate	100 MHz or better
5.5	Time Base Accuracy	± 0.01% or better
5.6	Velocity of Propagation	90m/uS-300m/uS or better

5.7	Display Type	Readable in direct sunlight	
5.8	Should have USB Interface		
5.9	Automatic Far end indication and fault location with distance indication should be possible.		
6	Supplier shall provide HV Output cable 20m shielded FPR Insulated cable. Ground cable should be 50m 2/0 type.		
7	Should be mounted on 2 Wheel hand truck.		
8	Pre-location unit should be standalone with inbuilt batteries. Unit should be rugged with IP65 protection.		
9	Acoustic Detector for pinpointing cable faults features and specifications		
9.1	Should work on following principles: Acoustic Pick up Magnetic pick up Coincidence measurement between the two modes should be available for accurate pinpointing.		
9.2	LCD Display with automatic backlight.		
9.3	All receivers should be in single mounting.		
9.4	Sensitive enough to detect fault from a distance of 5m minimum.		
9.5	Switchable additional filter to eliminate background noise.		
9.6	Weight of detector or receiver should not be more than 2 kg.		
9.7	Should be supplied with battery charger.		