Considering age old system with frequent switching operations, the existing distribution network needs to be technically checked to ascertain its present day status and ageing effect.

It is, thus, essential to have thorough technical audit of the selective network in line with the Scope of Work as detailed herewith.

The Service Provider has to carry out the physical survey of the selected network end-to-end with their own vehicle. Any local support will be provided by IPCL at site.

These scopes of Work for the aforesaid job are as under:

(A) Scope of Work for Distribution Lines (O/H & U/G) for 11kV and 33kV

- Identification of possible weak points, hot spot checking, thermo-vision imaging of the junction points & section points in the network. Use of Binocular & Thermo-vision camera is mandatory for using in live network.
- To check condition of Conductor with Sag, Earth wire, Pole Earthing, Structure/ pole, pole muffing, Bracket, stay wire, stay set, cradle, Disc / Pin Insulator, LA, Earth Spikes, jumper clearance etc.

(B) Scope of work at 33/11 kV substation

- To check the CB operation, contact resistance, trip/ closing coil,
- Condition of existing capacitor bank and new requirement to maintain p.f. between 0.98 & unity.
- Status of sub-station earthing (body earthing & system earthing).
- Hot spot checking at outdoor bus yard, equipment junction point with thermo-vision imaging.
- Transformer health checking (Oil level, oil test for BDV and DGA, OTI and WTI condition, Breather condition, PI)
- Status of on-load Tap changer.
- Outdoor Isolators operation, alignment, contacts resistance checking.

(C) Scope of work at HT consumer (33 kV & 11 kV)

Recommendations for high voltage consumers to maintain healthy protection system at their intake points commensurate with their load drawl.

- Review of existing relay settings at the metering switchgears at the Consumer premises regarding its Contract Demand and fluctuating load drawl due to induction furnace, process plants etc. with harmonic analysis.
- Condition of metering switchgears at the Consumer premises including status of trip coil, close coil, mechanical operation, DC status, heater ckt and heater condition.

List of 33/11kV Feeders and Substation is furnished below:

33/11 kV Substations:

SL NO	SUB STATION NAME
1	DISHERGARH RECEIVING STATION
2	IKRAH
3	DHASAL
4	MANGALPUR

33kV Feeders:

SL NO	FEEDER NAME	Zone	VOLTAGE GRADE in kV	Feeder Length in KM	
				Overhead	Underground
1	GOPALPUR SENRELAIGH	DPS	33	9	0.15
5	JKN-FDR RD 1	SPS	33	4.5	0.202
6	JKN-FDR RD 2	SPS	33	4.5	0.202
7	JKN FDR -RD 3	SPS	33	4.6	
8	JKN FDR -RD 4	SPS	33	4.6	

No. of 11kV Feeders:

SL NO	FEEDER NAME	ZONE	VOLTAGE GRADE	Feeder Length in KM	
			in kV	Overhead	Underground
1	RANJIT AUTO	DPS	11	9.3	3.14
2	ASANSOL SECTION	SPS	11	8.1	1.766
3	CENTRAL SATGRAM	SPS	11	9.75	0.545
4	RANIGANJ SQUARE	LRS	11	14.824	1.488
5	BP MILL-1	LRS	11	11.43	1.24