



KERALA STATE ELECTRICITY BOARD Ltd

(Incorporated under the Companies Act, 1956)
 Registered Office: Vydyuthi Bhavanam, Pattom,
 Thiruvananthapuram – 695 004
 CIN: U40100KL20115GC027424
 Website: www.kseb.in

ABSTRACT

Providing line differential relays for short lines connected with ISTS - Sanctioned - Orders issued

CORPORATE OFFICE(SBU-T)

BO (FT) No. 365/2022(D(T&SO)/T4/SC/LDP for ISTS lines/21- Thiruvananthapuram, Dated: 27.04.2022 22)

- Read: 1. Letter No.CESO/EE Tech/AE (GS)/PCSC/2021-22/1383 dated 01.09.2021 of the Chief Engineer (T&SO) to the Member Secretary, SRPC, Bangalore.
2. Letter No.CESO/EE Tech/AE (GS)/PCSC/2021-22/1876 dated 28.10.2021 of the Chief Engineer (T&SO).
3. Letter No.CESO/Tech 1/AEE(T1)/PCSC/2021-22/2635 dated 19.01.2022 of the Chief Engineer (T&SO).
4. Note No.C(T&SO)/T4/SO/LDP for ISTS lines/21-22 dated 11.04.2022 of the Director (T&SO) to the Full Time Directors (Agenda Item No.45/4/22).

ORDER

The Chief Engineer (T&SO) as per letter read as 2nd above reported that the Protection Coordination Sub-Committee (PCSC) of SRPC has recommended to provide differential protection relays instead of distance protection relays for transmission lines of 220 kV and above voltage level having line length less than 10 km.

The requirement of new differential protection relays as per the SRPC protection audit are as below:

Table

Station	Feeders	Line length	Line differential relay required	Remarks
220 kV SS, Areakode	2 ARKZ # 1,2,3 (Areakode-Kozhikode)	250 m	3	Only M1 line differential protection with distance backup is present. M2 line differential protection is to be provided
400 kV PGCIL SS, Kozhikode			3	
220 kV SS, Palakkad	2 ELPK # 1,2,3 (Elapully-Palakkad)	3.6 km	6	M1 and M2 distance relays are in service
PGCIL SS, Palakkad			6	
220 kV SS, Pothenchode	2 TVPC #1,2,3,4 (Trivandrum-Pothenchode)	3.49 km	8	M1 and M2 distance relays are in service
PGCIL SS, Trivandrum			8	
Total no. of relays required			34	

The Chief Engineer (T&SO), as per letter read as 1st above informed SRPC that the procurement of relays and accessories are to be coordinated with PGCIL as the remote end stations are of PGCIL and the relays at both ends are to be identical.

The Chief Engineer (T&SO) as per letter read as 2nd above reported that in the 49th Commercial Sub Committee meeting of SRPC held on 03.09.2021, SRPC pointed out that Line Differential Protection (LDP) implementation cannot be dropped, set aside on account of cost considerations. KSEBL can prioritize in this regard and implement the LDP for the recommended lines in a phased manner. W/s PGCIL requested KSEBL to bear the entire cost of the implementation citing the fact that even if PGCIL shares half of the expenditure, the amount will have to be reimbursed to PGCIL through tariff.

The total expenditure for providing LDP for the feeders as detailed in Table I above is reported as ₹3 crore and the estimate is prepared based on market enquiry and the lowest offer received. The Chief Engineer suggested that since no serious maloperations have been reported in the said feeders, the LDP can be implemented after exploring the possibility of funding through PSDF. The Chief Engineer requested Administrative Sanction for the proposal of providing LDP at an estimated cost of ₹3 crore (inclusive of tax) and sought sanction for seeking PSDF grant.

The matter was placed before the Full Time Directors as per the note read as 4th above.

Having considered the matter in detail, the Full Time Directors in the meeting held on 11.04.2022 resolved to accord in-principle approval to the proposal for providing Line Differential Protection for the 220 kV Areakode-Kozhikode (2ARKZ #1,2,3), Elapully-Palakkad (2ELPK #1,2,3) and Trivandrum-Pothencode (2TVPC #1,2,3,4) feeders as detailed in the Table above.

Further resolved to authorize the Chief Engineer (TSO) for seeking funds through PSDF for implementing the same.

Orders are issued accordingly.

**By Order of the
Full Time Directors**

Sd/-

**LEKHA G
Company Secretary**

To:

The Chief Engineer (T&SO)

Copy to: The Chief Engineer (IT)/ Financial Adviser/ Chief Internal Auditor
The TA to CMD/ D(T&SO)/ D(D&T)/ D(G-C)/ D(G-E)/ D(P,S& SCM)/
D(REES,S,S&W)
The PA to Director (Finance)
The Company Secretary
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Forwarded / By Order



Assistant Executive Engineer