

SOP

TROUBLE SHOOTING ELECTRICITY BREAK DOWN

1. GENERAL

In view of the PIEDMC; The proceeding pares high light the actual methodology to undertake the preventive / curative measures to address the electric breakdown issues.

2. ELECTRICAL SYSTEMS: -

a. Internal Electrical System All equipment laid beyond 132KV Grid Station, forms part of Internal Electrical System which includes:

- (1) Underground cable structure (11KV and 440V)
- (2) Pad mounted Transformers
- (3) Ring main units.
- (4) Industrial panels (B3) consumers.
- (5) Tripping of 11 KV feeders from 132 KV Grid Station.

3. Electrical Trouble Shooting Teams

a. Organization (As per Annex B)

b. Duties

- (1) Rotating (24 hrs available) Shift In charge along with one electrician and helper. Shift staff is responsible to attend / rectify the consumer complaints on 24 hrs basis.
- (2) Electric Pole Repair Team with one electrician and one helper. To maintain all street lights and related panels. Maintain the illumination on alternate pole basis.
- (3) Transformer RMUs preventive maintenance Team with two electricians and one helper.
At least 03 days in advance Electrical department will send written notice to effected area customers through customer service PIE and also will inform personally to each customer. Then carry out planned preventive maintenance of pad mounted transformers, ring main units, in the presence of Assistant Manager Operation.
- (4) New Connection Team
 - (a) (02) Two Supervisors, (04) Four Electrician, (2) Two Cable Jointer, (2) Two Meter Reader, (03) Three Electrical Helpers.
 - (b) Responsible for New Connections, Disconnections, Re-Connections, Meter Replacement and monthly meter reading.

4. Trouble Shooting Procedure

a. Customer complaints.

- (1) Customer files complaint of electrical break down personally or by complaint center or on mobile of Assistant Manager Operation or HOD Electrical. All these Complaints will enter in Electrical dispatcher complaint register, issues complaint Registry Number and informs immediately to shift incharge (Supervisor).
- (2) In response of any complaint, shift Supervisor along with his staff will rushes to the site, rectifies the fault and informs to the customer, enters the detail of fault, detail of its rectification in the Shift Incharge log book, also informs to the Electrical dispatcher for recording the rectification time and duration in complaint register.

5. **Internal System Break Down.**

- a. In case any break down occurs in the underground cable system, pad mounted transformer or ring main units, it will inform immediately to Assistant Manager Operation and Shift Incharge will attend the fault site immediately will check the nature of the fault and inform the detail of fault to Assistant Manager Operation and will rectifies the fault as per instruction of Assistant Manager Operation, at the same time Assistant Manager Operation informs to HOD Electrical.
- b. In case shift Incharge do not find Assistant Manager Operation he will inform HOD Electrical directly and follow his instructions.
- c. If the fault nature is not understandable by shift Incharge, Assistant Manager Operation will attend personally and also inform the detail of fault to HOD Electrical.
- d. In case of 11kv side problem say tripping or fuse blowing from transformer, Shift Incharge will disconnect all Incoming Outgoing connections and replace the fuse and switch ON the supply to confirm the nature of fault is inside transformer or any customer connection, in case of transformer fault, disconnect all load and switch OFF the incoming supply from feeding RMS. In case of any customer site fault, disconnect that customer supply and restore remaining customers. Inform to the faulty customer.
- e. In case tripping of 11kv Industrial Panel B-3 customer, the system clearance certificate is required from the customer, after getting certificate shift Incharge will switch ON the panel, in case tripped again will inform to Assistant Manager Operation and follow the instructions.
- f. In case tripping on 11kv feeder from Grid Station, shift Incharge will inform to Assistant Manager Operation directly and then will cut off all the load from the RMS on tripped feeder and switch ON the said panel and gradually connect the load in which load feeder will trip again that load / area will be disconnected and remaining all load will be connected and checked the fault from the isolated area.

6. **External Electrical System.** Grid and its beyond under the control of LESCO, which includes:

- a. Inside the 132kv Grid Station System Break Down.

- b. Electricity failure from WAPDA network.
- c. **132kv Grid System Breakdown.** Shift Incharge will attend the Grid Station immediately and inform to Assistant Manager Operation, Incharge Grid Station, Assistant Manager Operation will inform to HOD electrical, Deputy Manager SS&T LESCO, AET SS&T LESCO. HOD Electrical will inform to Manager GSO LESCO immediately in order to avail prompt and priority response.
- d. **Electricity failure from WAPDA network.** Shift Incharge will immediately contact Grid Station LESCO staff and ask the reason of electricity breakdown and approximate restoration time and Inform to Assistant Manager Operation immediately who will inform to HOD Electrical, Customer Service PIE and Electrical dispatcher and customers. HOD informs the PIE Senior Management and will remain in contact with LESCO's high officials.
- e. **Rehearsals.** Regular rehearsals will be conducted on regular basis to increase the reaction / response time.
- f. **Complaint Center.** Complaint Center is located at each Industrial Estate, complaint center is active 24 hrs.
- g. **Duty Staff.** O&M incharge is available in general duty timing (0900hrs to 1700hrs).

Prepared By

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