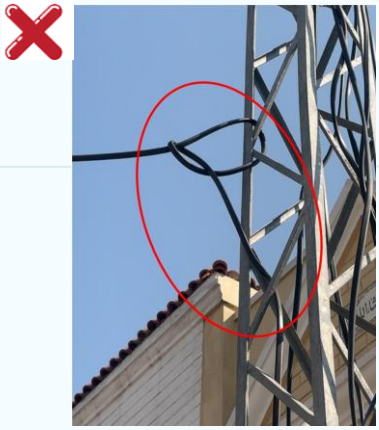
National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Safety Flyer March 2025

Power with Safety

Most Significant Hazard

Across Pakistan, one of the most significant hazard is the direct wrapping of consumer service cables around metallic poles without the use of shackle insulators, plastic cable hangers, J-hooks, brackets, clamps, clips, or cable ties. Over time, the service cable insulation can deteriorate and puncture due to weather conditions and wind exposure, leading to current leakage and short-circuiting in the metallic pole and posing a serious risk to both the public and animals especially in the rain.



Safety Advisory

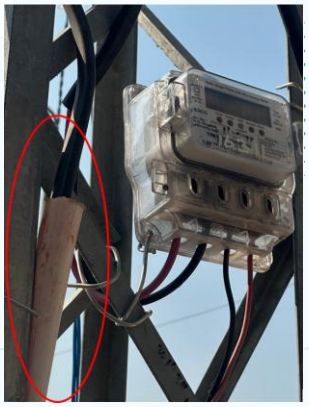
1. Consumer service cables must not be wrapped directly around metallic poles. The Network Owner/Sub-Divisional Officer is responsible to ensure that all existing and new consumer service cables are properly secured at their metallic poles within their service territory and jurisdiction with shackle insulators, plastic cable hangers, J-hooks, brackets, clamps, clips, or cable ties to keep cables organized to ensure the safety of both the public and animals.
2. The Network Owner/Sub-Divisional Officer is responsible that all conductors/cables are properly managed, in good condition, correctly tensioned, and free of defects at their metallic poles. When slack loops of additional cable are present on the pole, it must be neatly and securely organized to avoid any potential damage.
3. The Network Owner/Sub-Divisional Officer is responsible that the overhead consumer service cables for the energy meter should be installed by the consumer at a sufficient height to avoid interference with pedestrian and vehicular traffic. The minimum safe clearance of service cables from the ground surface shall be 15 feet (4.6 meters) in pedestrian areas, 19 feet (5.8 meters) in streets, and 26 feet (7.9 meters) near roads.

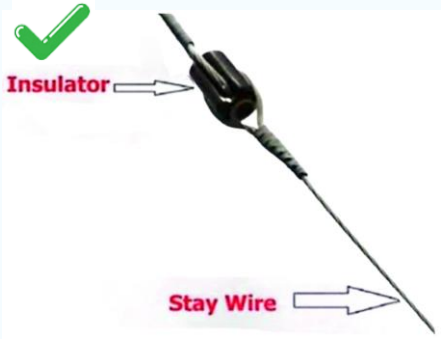
NEPRA Tower, Ataturk Avenue (East), G-5/1, Islamabad, Phone: +92512013200,
Fax: +92512600030, Website: www.nepra.org.pk, Email: hse@nepra.org.pk

Safety Advisory (Cont.)

4. Consumer service cables should be installed in a straight, secure manner without excessive sagging. If the length of consumer service cables exceeds 130 feet (40 meters), the network owner shall provide support by poles, structures or spool insulators for walls in accordance with the NEPRA Consumer Service Manual.
5. Overhead consumer service cables shall not be routed over or near the rooftops of consumer premises buildings or structures unless absolutely necessary, and in such cases, proper clearance and protective conduits must be used. Additionally, these consumer service cables shall not be routed above or on the rooftops or structures of "other" consumer buildings or properties.
6. The Network Owner/Sub-Divisional Officer is responsible for overseeing the inspection and maintenance of in-service conductors/utility cables management at their pole within their service territory and jurisdiction. It's essential to maintain proper clearance between conductors and the surrounding infrastructure.
7. When connecting two electrical cables, first wrap electrical tape around the exposed wires then apply waterproof tape, heat shrink tubing, or connectors to seal the connection and prevent moisture ingress during rain.
8. Network owner shall prohibit the installation of telecommunications, internet or television cables on its network. However, if such installations are permitted, the network owner must take full responsibility for its network's integrity and ensure people and animals safety.
9. The Network Owner/Sub-Divisional Officer is responsible to install and maintain fixed earthing/grounding system for all equipment, exposed metallic structures, poles, and stay wires/braces to minimize the risk of electrical shocks and fires including for both H-Type and Spun-Type concrete poles, which have reinforced iron bars and designated points for earthing connections. Although Glass Fiber Reinforced Polymer (GFRP) poles are non-conductive, any conductive components attached to the pole, such as transformer or metal cross arm, should be properly grounded.
10. The Network Owner/Sub-Divisional Officer is responsible to install a rated low voltage circuit breaker on the low voltage side of the distribution transformer, within a distribution panel, or in an outdoor enclosure, along with appropriately sized and rated HT link fuses. The low voltage circuit breaker shall provide immediate protection to the transformer and downstream circuits by quickly isolating the circuit in the event of an overload, short circuit, or other electrical faults originating from the consumer's side.
11. The Network Owner/Grid In-charge is responsible to replace outdated analog relays with digital protection relays, ensuring it is properly configured with accurate trip settings to enhance HT fault detection and ensure timely tripping.

Spool insulator on Wall





Stay vigilant, take immediate action and be safe!

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