

# National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAD-07/ 1963

February 03, 2025

Chief Executive Officer, Peshawar Electric Supply Company (PESCO), WAPDA House, Shami Road, Sakhi Chashma, Peshawar.

Subject:

ORDER OF THE AUTHORITY IN THE MATTER OF OF SHOW CAUSE NOTICE ISSUED TO PESCO UNDER REGULATION 4(1) AND 4(2) OF NEPRA (FINE) REGULATIONS, 2021, ON ACCOUNT OF FAILURE TO EXECUTE EARTHING/GROUNDING OF HT/LT POLES/STRUCTURES IN ITS SERVICE TERRITORY.

Please find enclosed herewith, the Order of the Authority (total 09 page) in the subject matter for information and compliance.

Enclosure: As above

(Wasim Anwar Bhinder)



# National Electric Power Regulatory Authority

#### **ORDER**

# IN THE MATTER OF EXPLANATION ISSUED TO PESCO UNDER REGULATION 4(1) AND 4(2) OF NEPRA (FINE) REGULATIONS, 2021, ON ACCOUNT OF FAILURE TO EXECUTE EARTHING/GROUNDING OF HT/LT POLES/STRUCTURES IN ITS SERVICE TERRITORY.

1. Peshawar Electric Supply Company Limited (PESCO) (the "Licensee") was granted a Distribution License (No. DL/07/2023) by the National Electric Power Regulatory Authority (the "Authority") on 09.05.2023, for providing Distribution Services in its Service Territory as stipulated in its Distribution License, pursuant to section 21 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 ("NEPRA Act").

## Background:

- During the investigation conducted by NEPRA with respect to Fatal Accidents in DISCOs, it was observed that the distribution facilities of DISCOs such as poles/structures lack earthing/grounding which is one of the major causes of the occurrence of fatal accidents. The Authority while taking notice of such serious safety hazards directed the Licensee vide letter dated June 07, 2022, followed by reminders dated July 06, 2022, and August 02, 2022, to submit the data pertaining to the total number of poles/structures, number of poles/structures already earthed/grounded, and number of poles/structures to be earthed/grounded. Accordingly, the Licensee submitted the required information vide its email dated August 12, 2022.
- 3. The Authority after carefully examining the data submitted by the Licensee called CEO of the Licensee vide letter dated September 26, 2022, for a meeting/hearing via Zoom at NEPRA Head Quarter with the direction to come up with a comprehensive plan along with specific timelines pertaining to execution of earthing/grounding of HT/LT poles/structures in its service territory, in order to avoid fatal accidents in future. The Authority also directed that the Licensee shall submit the response to specific queries/questions including, SOP of the Licensee pertaining to earthing/grounding of the poles/structures, scope of earthing in the contracts at the time of their installation, checking of poles/structures grounding at the time of handing over of the system from construction to operation departments, tackling these hazards in the absence of proper earthing/grounding, and time required to execute the earthing/grounding of 100% of the remaining poles/structures.

Accordingly, the said meeting/hearing was held on October 04, 2022, wherein, the Authority directed the Licensee to submit complete details of PCC poles and steel structures with and without earthing/grounding. The Authority further directed the Ecensee to submit a comprehensive plan of the execution of earthing/grounding of les & structures along with concrete timelines. Moreover, the Authority also desired

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that the Licensee should provide a mechanism on how they will efficiently perform the execution task within the minimum possible time. A letter dated October 28, 2022 containing all above directions was also sent to the Licensee.

- 5. In addition to above, NEPRA Regional Office, Peshawar, also reported and affirmed that in past contracts, the scope of earthing/grounding was only included in Steel Structures. However, in the latest contracts, the scope of earthing/grounding was included in both the Steel Structures and PCC poles and the same is present in the field too. The Regional Office further highlighted that Steel Structures installed in the past had earthing/grounding, however, the same has become ineffective due to deterioration and change of moisture contents at the sites over the passage of time. The same was also endorsed by the Licensee in its submitted replies.
- 6. In response to NEPRA's letter dated October 28, 2022, the Licensee vide its letter dated November 03, 2022, submitted its response against the aforementioned directions & queries of the Authority. The Licensee submitted that around 108,000 earth rods will be installed each year after procurement and work will be executed after outsourcing through vendors/contractors. The tentative timelines to complete the said work will be three years i.e., from Feb-2023 to Feb-2026. The detail of poles/structures already earthed or to be earthed as submitted by the Licensee is as under:

Total				Details of LT Poles/Structures				√Totál*, *
Number	Total	HT Poles/	.HT Poles/	Tötal = 5	LT Poles/	LT Poles/	Number	
of HTAT	Number	Structures	Structures	Number	Structures	Structure	of HT/LT	of HIYLT
Poles/	of HT	have ***	to be	of LT	have	s to be	Poles/	Poles/
Structure	Poles/	Earthing	Earthed	Poles/	Earthing	Earthed	Structure,	Structure
STATE	Structures			Structures			s have	s to be
<b>元</b>		. ;					Earthing 3	Earthed.
851,751	342,342	177,507	164,835	509,410	243,019	266,391	420,526	431,226

- 7. The submissions of the Licensee were carefully analyzed and some observations were noted particularly related to the execution time period (Feb-23 to Feb-26) which seemed too long. The said observations were communicated to the Licensee vide letter dated January 13, 2023. In response, the Licensee vide its letter dated February 06, 2023, submitted a revised plan by keeping in view the observations of the Authority. The Licensee furher claimed that it will complete this task by January 2024, instead of February 2026, by hiring 10 No. of labor per sub-division specifically for this purpose. The Licensee also submitted that the time schedule will be changed subject to approval accorded by BoD of the Licensee and the participation of Bidders in the tender.
- 8. Keeping in view the aforementioned submissions of the Licensee, it was noted that although the Licensee has revised its plan, but again the same is based on some conditions such as approval of BoD and participation of bidders. Being prudent utility, the Licensee should have realized the sensitivity of the issue and should have submitted concrete plan along with approval of BoD which it failed to do so. It was further observed that despite lapse of six months, it has not started the execution process and claiming that it will complete all this by January 2024, which seems impractical. The Licensee should have understood that the operation of poles/structures without Parthing/grounding in the field is highly dangerous and can lead to the occurrence of Etal accidents at any time.

9. Therefore, the Authority decided to initiate legal proceedings against the Licensee under NEPRA Fine Regulations, 2021.

### **Explanation:**

- In view thereof, an Explanation was served to the Licensee under Regulation 4(1) and 4(2) of NEPRA (Fine) Regulations, 2021, vide NEPRA's letter dated April 27, 2023, on account of violation of Section 21(2)(f) of the NEPRA Act, Article 11 of the Distribution License read with Rule 4(g) of the NEPRA Performance Standards (Distribution) Rules, Clause 4 of Safety Requirements, Clause 4 of Design Code & Clause 1 of Protection Requirements of the Distribution Code and Clause 12.2 of Chapter 12 of the Consumer Service Manual.
- 11. The Licensee vide its letter dated June 26, 2023, submitted its response. Moreover, in order to satisfy the requirement of law, a hearing in light of Regulation 4(5) of NEPRA (Fine) Regulations, 2021, was held on August 17, 2023, however, the CEO of the Licensee, was not available during the hearing without informing NEPRA. The Authority took serious notice of the absence of the CEO of the Licensee and ordered that the CEO of the Licensee will bear a cost of Rs. 0.5 Million, on account of time and resources spared by the Authority, professionals, and the general public. Afterwards, a Show Cause Notice dated October 18, 2023, was also issued to the Licensee in this regard. In response, CEO of the Licensee vide its letter dated November 30, 2023 submitted its reply. The Authority after taking a lenient view considered the grounds/contentions adopted by the Licensee and accepted its response and closed the matter.

#### **Show Cause Notice**

- 12. The Authority considered the submissions of the Licensee and after detailed deliberations rejected the response submitted by the Licensee against the Explanation dated April 27, 2023, served upon it and directed to issue a Show Cause Notice (SCN) to the Licensee under Regulation 4(8) & (9) of the NEPRA (Fine) Regulations, 2021 on account of violation of Performance Standards, Distribution Code, Power Safety Code, and other applicable documents.
- 13. Accordingly, NEPRA vide letter dated December 14, 2023, issued an SCN to the Licensee upon failure to execute earthing/grounding of HT/LT poles/structures in its service territory. The salient points of the served SCN are as follows:
  - 3. "WHEREAS, pursuant to section 21(2)(f) of the NEPRA Act, the Licensee is required to follow the performance standards laid down by the Authority for distribution and transmission of electric power, including safety; and

4. WHEREAS, pursuant to Rule 4(g)(ii), Overall Standards 7-Safety of NEPRA Performance Standards (Distribution) Rules:

"A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in

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voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company."

- 5. WHEREAS, according to clause SR 4 Safety Management Criteria of Distribution Code:
  - b. "A distribution company shall ensure that its distribution facilities do not cause any leakage of Electrical Current or Step Potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company."
- 6. WHEREAS, as per clause DDC 4, Design Code- Earthing of Distribution Code:
  - "... The earthing of a distribution transformer, the neutral, and body of the transformer should be connected to ground rods as per IEC and PSI Standards Design Specifications. Earthing of Consumer Service and its meter shall be as per design standards adopted by the Licensees; and consistent with IEC, and IEEE Standards. The earth resistance of the distribution transformers and HT/LT structures/poles shall not be more than  $2.5\Omega$  and  $5\Omega$  respectively."
- 7. **WHEREAS**, pursuant to clause PR 1 Protection System Practices and System Coordination of Distribution Code:

"The Licensee shall follow suitable and necessary provisions regarding protection system practices and co-ordination such as the following but not limited to achieve the aims of proper functioning of the distribution system of the Licensee at all times:

- h. ... Provide protective earthing devices."
- 8. WHEREAS, as per clauses 12.2.4 and 12.2.5 of Chapter 12 of the Consumer Service Manual:
  - "12.2.4. The earthing systems installed shall be dimensioned and regularly tested to ensure protection from shock hazards.
  - 12.2.5. The steel structure installed on the public places shall be earthed at one point through steel/copper conductor, in accordance with the DISCO laid down procedures."

WHEREAS, the Authority issued an Explanation to the Licensee under Regulation 4(1) and 4(2) of NEPRA (Fine) Regulation, 2021 on April 27, 2023, on account of failure to execute earthing/grounding of HT/LT poles/structures in its service territory. The salient points of the said Explanation are reproduced below:

9. "WHEREAS, during the investigation conducted by NEPRA with respect to fatal accidents in DISCOs, it was observed that the distribution facilities of DISCOs particularly HT/LT poles/structures lack earthing/grounding which is one of the major causes of the occurrence of fatal accidents. The Authority took notice of such serious safety hazards and directed to obtain data from all the DISCOs including the Licensee, with respect to the total number of HT/LT poles/structures, the number of HT/LT poles/structures already earthed/grounded, and the number of HT/LT poles/structures to be earthed/grounded. The same was obtained vide Licensee's letter dated August 12, 2022, and the detail is as under:

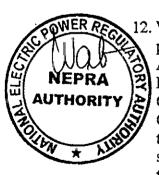
Total Details of HT Poles/Structures				Details of LT Poles/Structures Total Fo				
Number	Total	HT Poles/	HT Poles/	Total: 🛂	LT Polesk	LT. Polesk	Number of:	Number of
of HT/LT	Number of	Structures	Structures	Number of	Structure's	Structures :	HT/LT	HIVE
Poles/	HT Poles/	have	to be	LT *Poles/	have,	to be	Poles/	
Structures	Structures	Earthing .	Earthed	Stručtures	Earthing 3	Earthed	Structures	Structures
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- 10. WHEREAS, a hearing/meeting on the matter was also held on October 04, 2022, wherein the representatives from all DISCOs including CEO PESCO participated. During hearing/meeting, the Authority directed all DISCOs along with the Licensee to submit complete details of PCC Poles and steel structures with and without earthing/grounding. The Authority further directed the Licensee to submit a comprehensive plan of the execution of earthing/grounding of poles/structures along with concrete timelines. Moreover, the Authority desired that DISCOs should provide a mechanism on how they will efficiently perform the execution task within the minimum possible time, however, the Licensee did not submit anything in this regard; and
- 11. WHEREAS, vide NEPRA's letter dated October 28, 2022, the Licensee was again directed to submit the said information. In response, the Licensee vide its letter dated November 03, 2022, submitted that it will carry out earthing of around 108,000 poles/structures per year and the whole task will be completed by 2026. In this regard, it was observed that approximately 9,000 poles/structures will only be grounded per month, which does not seem sufficient to execute the task on a war footing basis. Hence it can be said that the performance of the Licensee appears below par as compared to some other DISCOs, who have committed to ground 40,000 to 50,000 poles/structures per month. This also shows the level of seriousness towards inculcating a safety culture by the Licensee in its service territory; and
- 12. WHEREAS, vide NEPRA's letter dated January 13, 2023, the Licensee was again directed to revisit its plan in the light of observations highlighted by NEPRA. In response, the Licensee vide its letter dated February 02, 2023, revised its plan and submitted that it will complete this task by January 2024, instead of February 2026 by hiring 10 No. labor per subdivision. The Licensee also submitted that the time schedule will be

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changed subject to approval accorded by BOD PESCO and the participation of Bidders in tender. In this regard, it is noted that although the Licensee has revised its plan, but still has not started the execution process despite the lapse of almost 06 months and claiming that it will complete all this by January 2024, which seems impractical. Further, the Licensee has prepared its plan subject to the approval of its BOD, however, the Licensee should have realized the sensitivity of the issue and already should have gotten approval from its BOD before forwarding the same to NEPRA. The Licensee should have realized that operation of poles/structures without earthing/grounding in the field is highly dangerous and can lead to the occurrence of fatal accidents at any time; and

- 13. WHEREAS, it is a matter of record that despite repeated and continuous correspondence, the Licensee has failed to produce any concrete plan along with so far progress in the field for executing the earthing/grounding of HT/LT poles/structures on a war footing basis. Hence, it can be said that the Licensee has, prima facia, violated Section 21(2)(f) of the NEPRA Act, Article 11 of the Distribution License read with Rule 4(g) of the NEPRA Performance Standards (Distribution) Rules, Clause 4 of Safety Requirements, Clause 4 of Design Code & Clause 1 of Protection Requirements of the Distribution Code and Clause 12.2 of Chapter 12 of the Consumer Service Manual; and"
- 10. WHEREAS, the Licensee was given fifteen (15) days to either admit or deny the occurrence of the said violations and submit a reply against the aforementioned Explanation, failing which it shall be presumed that the Licensee has nothing to say in its defense and the Authority shall proceed based on available record in accordance with NEPRA Act, Rules, and Regulations; and
- 11. WHEREAS, the Licensee submitted its response vide its letters dated June 26, 2023, against the Explanations served and a public hearing in the matter was also held on August 17, 2023. Consequently, the Authority after detailed deliberations concluded that the Licensee has failed to provide any satisfactory reply to the Explanation served to it; and



- 12. WHEREAS, the Licensee has failed to satisfy the Authority with its replies and prima facia, has committed the violations of Section 21(2)(f) of the NEPRA Act, Article 11 of the Distribution License read with Rule 4(g) of the NEPRA Performance Standards (Distribution) Rules, Clause 4 of Safety Requirements, Clause 4 of Design Code & Clause 1 of Protection Requirements of the Distribution Code and Clause 12.2 of Chapter 12 of the Consumer Service Manual. Therefore, the Authority hereby rejects the response of the Licensee against the Explanation served, and an Order dated December 14, 2023, is attached herewith, mentioning the reasons of rejection; and"
- 14. In response, the Licensee vide its letter dated January 16, 2024, submitted its reply. The salient points of the same are as follows:



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- "With veneration and respect, it is submitted that after approval from BoD PFSCO in 187<sup>th</sup> BoD Meeting held on dated 05/06/2023, Plan devised for Earthing / Grounding of HT/LT Poles /Structures of PESCO Distribution Network within spell of 89 days by hiring the contingent labor. Earth Rods have been procured and shifted to all relevant stores accordingly.
- 2. Due to lack of capacity, skills, experience and acute shortage of field staff this huge task could not be executed & completed speedily by the filed formation at Circle level as per Standard Design Instructions, therefore it was deliberated thoroughly and decided that circle wise tender will be floated through PD (C&O) for outsourcing the contract for Earthing/Grounding of HT/LT Structures of PESCO Distribution system and the work will be executed through contractors/vendors.
- 3. Therefore keeping in view of safety of general public and employees, PESCO forwarded another proposal to BoD PESCO for approval for outsourcing of contract for installation of 431,266 Earth rods along with accessories by floating the circle wise tender through PD Construction for selection of contractors /vendors to execute the subject job as well as to achieve the exact ohmic value of earthing in accordance with the Standard Design Instructions.
- 4. It is therefore requested that taking into account the above facts and figures/ground realities, the instant show cause notice issued to PESCO may be held for short period of time due to submission of proposal to BoD PESCO."

#### Hearing

- 15. In order to fulfill the requirement of law, the Authority decided to provide an opportunity for a hearing to the Licensee in light of Regulation 4(11) of NEPRA (Fine) Regulations, 2021, before finalizing the proceedings in the matter. Therefore, the hearing in the matter of SCN issued to the Licensee was held on September 24, 2024, wherein, the CEO of the Licensee along with his team, made the following submissions:
- NEPRA AUTHORITY
- Earlier, PESCO was executing the task of earthing/grounding of structures through its own resources, whereby the earthing of approximately 25,000 HT Structures and 37,700 LT Structures was executed.
- PESCO could not complete the task due to a shortage of staff. Therefore, PESCO management decided to outsource the task. Accordingly, work orders for four circles have been issued and for the remaining circles, the work orders will be issued soon.
- iii. PESCO is committed to complete the earthing of 100% of its remaining structures by June 2025.

#### Findings/Analysis:

16. The Licensee has submitted that its BoD in the 187<sup>th</sup> BoD Meeting held on 05/06/2023, devised a plan for Earthing / Grounding of HT/LT Poles/Structures of the Licensee's Distribution Network within a spell of eighty-nine days by hiring the contingent labor. Accordingly, the Earth Rods have been procured and shifted to all relevant stores.

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The Authority has considered the submissions of the Licensee and is of the view that the BoD Meeting was held in June 2023 and since then more than sixteen months have lapsed. The same plea was adopted by the Licensee to complete the task in eighty-nine days at the explanation stage, however, after the lapse of sixteen months, not a single progress report has been submitted by the Licensee. The Licensee was bound to follow the deadline given by its BoD, however, it has failed to do and now, the Licensee has submitted that it is in process to outsource the same activity. If this timeline of eighty-nine days was not practicable for the Licensee, then the Licensee should have approached immediately to its BoD and should have requested for outsourcing at that time rather than wasting the time of 16 months. This depicts that the Licensee is trying to apply the delaying tactics and is not ready to understand the situation of such serious safety hazard. The Licensee should have taken immediate meausres either execution by itself or through 3<sup>rd</sup> party for the purpose to make the system safe and to avoid the fatalities in future, which the Licensee has failed to do.

The Licensee has submitted that due to lack of capacity, skills, experience, and acute shortage of field staff, this huge task could not be executed and completed speedily by the filed formation at Circle level as per Standard Design Instructions, therefore it was deliberated thoroughly and decided that circle wise tender will be floated through PD (C&O) for outsourcing the contract for Earthing/Grounding of HT/LT Structures of the Licensee's Distribution system and the work will be executed through contractors/vendors.

The Authority while examining the submissions of the Licensee observes that the Licensee's argument regarding the lack of capacity, skills, and field staff to execute the earthing/grounding task in compliance with Standard Design Instructions is unconvincing. It highlights poor planning and inadequate resource management on the Licensee's part, as these challenges should have been anticipated and addressed earlier. Moreover, the Licensee should have taken such deicison much earlier rather than lapse of almost one & half year and hence it can be said that the Licensee could not be exonerated from its responsibility to ensure timely execution and compliance with regulatory standards.

18. The Licensee has submitted that keeping in view of safety the general public and employees, it forwarded another proposal to BoD for approval for outsourcing of contract for installation of 431,266 Earth rods along with accessories by floating the circle-wise tender through PD Construction for selection of contractors /vendors to execute the subject job as well as to achieve the exact ohmic value of earthing in accordance with the Standard Design Instructions.

In this regard, the Authority after analyzing the submissions of the Licensee observes that the Licensee should have forwarded this another proposal to BoD immeidtaley after passe of eighty nine days rather than wasting time of more than sixteen months. This means that the Licensee is least bother to rectify such severe hazard and subsequently of avoid fatalities due to lack of earthing. It is a matter of record that NEPRA has taken up this matter since June 2022 and repeatedly directed the Licensee to submit a concrete plan and subsequently provide monthly progress reports. However, no single progress report has yet been submitted by the Licensee, and it only provides generic statements regarding the circle-wise floating of tenders, however, the on-ground execution progress is zero. This again shows that the Licensee has not earthed any single pole/structure despite the lapse of more than two years. Consequently, it appears that

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the Licensee's submissions exist predominantly on paper only and lack tangible implementation on the ground.

#### 19. Decision

- i. After due deliberations and taking into account the submissions/arguments made by the Licensee during the hearing and in light of the NEPRA Act, NEPRA (Fine) Regulations, 2021, and other applicable documents, the Authority is of the considered opinion that the Licensee has failed to provide any satisfactory reply to the Show Cause Notice served to it, therefore, the Authority hereby decides to impose a fine amounting to PKR 10,000,000/- (Ten Million) on the Licensee due to its failure pertaining to 100% execution of earthing/grounding of its HT/LT poles/structures in its service territory. The Authority hereby further directs the Licensee to earth/ground all remaining (100%) steel structures within three months and PCC Poles within one year. Failure to comply with the directions of the Authority may lead towards further penalty on the Licensee which will be decided after the completion of specified timelines.
- ii. The Licensee is directed to pay the fine amount of PKR 10,000,000/- (Ten Million) in designated bank of the Authority within a period of 15 days from the date of issuance of this order and forward a copy of the paid instrument to the Registrar Office for information, failing which the Authority may recover the amount due under section 41 of the NEPRA Act as arrears of the land revenue or through any other appropriate legal means in addition to taking any other appropriate legal action against the Licensee for non-compliance.

## **AUTHORITY**

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Amina Ahmed Member (Law)	annie Anna of
Waseem Mukhtar Chairman NEPRA AUTHORIT	Dated O3 Feb., 2025 Page 9 of 9