

# National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAD-09/ 218

January 08, 2025

Chief Executive Officer Quetta Electric Supply Company Ltd. (QESCO), Zarghoon Road, Quetta

SUBJECT:

ORDER OF THE AUTHORITY IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO QESCO UNDER REGULATION 4(8) & 4(9) 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 pages) in the subject matter for information and compliance.

Enclosure: As above

(Syed Zawar Haider)



# National Electric Power Regulatory Authority

# <u>ORDER</u>

IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO QESCO UNDER REGULATION 4(8) AND 4(9) OF NEPRA (FINE) REGULATIONS, 2021, ON ACCOUNT OF FAILURE TO EXECUTE EARTHING/GROUNDING OF HT/LT POLES/STRUCTURES IN ITS SERVICE TERRITORY.

1. Quetta Electric Supply Company Limited (QESCO) (the "Licensee") was granted a Distribution License (No. DL/08/2023 dated 09.05.2023) by the National Electric Power Regulatory Authority (the "Authority") 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:

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- 2. 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 letter dated August 19, 2022.
  - 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.
- 4. 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 Licensee to submit a comprehensive plan of the execution of earthing/grounding of poles & structures along with concrete timelines. Moreover, the Authority also desired



Page 1 of 9

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, followed by Reminder letter dated December 02, 2022, and various telephonic calls was also issued to the Licensee.

5. In addition to above, NEPRA Regional Office, Quetta, 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 is being 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 December 21, 2022, interalia, submitted that the exact period for execution and installation of earthing to HT poles/structures would be communicated after resurvey/confirmation that out of 310,562, how many are PCC poles and how many are steel structures. After that nothing was further submitted by the Licensee, which means that the said survey which had to be carried out by the Licensee is still awaited, despite the lapse of more than five months. The Licensee through various telephonic reminders was repeatedly directed to submit the required information, however, the Licensee did not bother to respond to the repeated directions of the Authority. This indicated the Licensee's non-seriousness with regard to execute the earthing plan on a war footing basis. The detail of poles/structures already earthed or to be earthed as submitted by the Licensee is as under:

Total	Details of HT Poles/Structures			Details of LT Poles/Structures			Total	Total
Number	Total	HT Poles/	HT Poles/	Total	LT Poles/	LT Poles/	Number	Number
of HT/LT	Number	Structures	Structures	Number	Structures	Structure	of HT/LT	of HT/LT
Poles/	of HT	have	to be	of LT	have	s to be	Poles/	Poles/
Structure	Poles/	Earthing	Earthed	Poles/	Earthing	Earthed	Structure	Structure
s	Structures		}	Structures	ľ	}	s have	s to be
	- <u>-</u>					<u></u>	Earthing	Earthed
644,047	303,349	160,990	142,449	340,698	172,585	168,113	333,485	310,562

- 7. The non-submission of any detail by the Licensee clearly indicated that the Licensee did not have any plan to execute this important task. 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. It is a matter of record that despite repeated and continuous correspondence, the Licensee failed to produce any concrete plan indicating specific timelines for executing the earthing/grounding of HT/LT poles/structures on a war footing basis.
- 8. Therefore, the Authority decided to initiate legal proceedings against the Licensee under NEPRA Fine Regulations, 2021.

### **Explanation:**

9. 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

Page 2 of 9

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.

10. The Licensee did not submit response within stipulated timelines, despite numerous reminders issued by NEPRA. However, after the lapse of more than five months, the Licensee vide its letter dated October 13, 2023, submitted its response. Furthermore, in order to satisfy the requirement of law, a hearing in light of Regulation 4(5) of NEPRA (Fine) Regulations, 2021, was held on October 17, 2023, wherein, CEO of the Licensee along with his team participated and made submissions.

## **Show Cause Notice**

- 11. The Authority considered the submissions of the Licensee and after detailed deliberations rejected the response submitted by the Licensee against the Explanation 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.
- 12. Accordingly, NEPRA vide letter dated January 23, 2024, 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 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."
- 9. 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:
  - "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 19, 2022, and the detail is as under:



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Total	Details of HT Poles/Structures			Details of LT Poles/Structures			Total	Total
Number of HT/LT Poles/ Structures	Total	HT Poles/ Structures have Earthing	HT Poles/ Structures to be Earthed	Total Number of LT Poles/ Structures	LT Poles/ Structures have Earthing	LT Poles/ Structure s to be Earthed	Number of HT/LT Poles/ Structure s have Earthing	Number of HT/LT Poles/ Structure s to be Earthed
644.047	303.349	160,990	142,449	340,698	172,585	168,113	333,485	310,562

- 10. WHEREAS, a hearing/meeting on the matter was also held on October 04, 2022, wherein the representatives from all DISCOs including CEO QESCO 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, followed by a Reminder dated December 02, 2022, and through various telephonic calls, the Licensee was again directed to submit the said information. In response, the Licensee vide its letter dated December 21, 2022, interalia, submitted that the exact period for execution and installation of earthing to HT poles/structures would be communicated after resurvey/confirmation that out of 310,562, how many are PCC poles and how many are steel structures. After that nothing has been further submitted by the Licensee till to date, which means that the said survey which was to be carried out by the Licensee is still awaited, despite the lapse of more than three months. The Licensee through various telephonic reminders was repeatedly directed to submit the required information, however, the Licensee did not bother to respond to the repeated directions of the Authority. This indicates the Licensee's non-seriousness with regard to execute the earthing plan on a war footing basis; and
- 12. WHEREAS, non-submission of any detail by the Licensee clearly indicates that the Licensee does not have any plan to execute this important task. 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. It is a matter of record that despite repeated and continuous correspondence, the Licensee has failed to produce any concrete plan indicating specific timelines 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



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# 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 Regulation. However, the response of QESCO did not receive within stipulated timelines, despite issuance of reminders by NEPRA; and
- 11. WHEREAS, the Licensee submitted its response vide its letter dated October 13, 2023, against the Explanations served and a hearing in the matter was also held on October 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 January 23, 2024, is attached herewith, mentioning the reasons of rejection; and"
- 13. In response, the Licensee vide its letter dated March 05, 2024, submitted its reply. The salient points of the same are as follows:
  - 1. ...it is submitted that 644,047 Nos were HT/LT steel structures & PCC Poles in the jurisdiction of QESCO as reported earlier. As such the combination of HT/LT steel structures & PC poles is tabulated below for further clarification: -

Total No.		Steel Strue (Needs	PCC Poles (Nos) (Earth not Required)			
Structure	Н	T	L	T	НТ	LT
& Poles	Earthed	To be	Earthed	To be		
		Earthed		Earthed		
644,047	96,600	85,469	103,551	100,868	121,376	136,183
Total		386	257,559			



2. From the above table, it is obvious that 257,559 were HT/LT PCC Poles that do not need earth rod/wire as per WAPDA Standard Design & Specifications, and out of 386,488 HT/LT Steel Structures, 200,151 Nos (52%) were earthed, while remaining 186,337 Nos were to be earthed.

Moreover, out of 186,337 Nos HT/LT Steel Structures, 46,583 Nos HT/LT steel structures (12%) are also earthed till date while efforts are underway for ensuring earth to remaining 139,754 Nos HT/LT Steel Structures.

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- 4. It is to be mentioned here that despite of engagement of not only Operation Formation staff but also staff of PD Construction in Anti-Theft National Drive which is still going on in line with the directives of Ministry of Energy Power Division Govt: of Pakistan, Islamabad affecting/slowing down the progress.
- 5. It is further apprised here that on the directions of CEO QESCO, the undersigned in consultation with Chief Engineer (Technical) has chalked out a plan for provision of earth to remaining HT/LT Steel Structures and further after detailed deliberations, PD Construction has been directed to prepare the cost estimate and process the same on priority basis, besides get approval of same from CEO or from BoD QESCO if it requires as per monitory limits, since the available stock of material being utilizing for installation on 11KV Feeders running in faraway isolated B-Areas having theft incidents on the increase due to weak writ of local administration and non-co-operation of LEAs with QESCO, however, this office and concerned field formations are continuously making efforts and in liaison with Police / Levis Stations for lodging FIRs in this regard.
- 6. Foregoing in view, it is humbly requested that Show Cause notice served to QESCO vide above noted subject may please be withdrawn, however, it is ensured that remaining work will be completed after arrangement of material as early as possible.

### Hearing

- 14. 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:
  - The total remaining Structures in QESCO's territory are 126,000.



QESCO's construction and operation staff was engaged in few parallel activities in addition to earthing/grounding including Solarization, and the Anti-Theft campaign, For that reason, the process of earthing got delayed. However, OESCO is committed to executing the task which requires some time.

The scope of earthing has always been included in the estimates, however, on the ground, the earthing of structures is missing. Therefore, Show Cause Notices to the relevant officials/officers have been issued.

iv. Further, the detailed plan will be shared with NEPRA soon.

# Findings/Analysis:

15. The Licensee has submitted that 257,559 HT/LT PCC Poles do not need earth rod/wire as per WAPDA Standard Design & Specifications. Moreover, the Licensee has added that out of 386,488 HT/LT Steel Structures, 200,151 Nos (52%) were earthed, while the remaining 186,337 Nos are required to be earthed. Additionally, out of 186,337 Nos HT/LT Steel Structures, 46,583 Nos HT/LT steel structures (12%) have also been earthed to date while efforts are underway to ensure earthing of the remaining 139,754

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Nos HT/LT Steel Structures. This number has further been reduced to 126,000 as per the Licensee's submissions during the hearing in the matter of Show Cause Notice.

The Authority has considered the submissions of the Licensee and is of the opinion that the claim of the Licensee regarding no need for earthing of PCC Poles as per WAPDA Standard Design & Specifications is not valid. Currently, as per practice, NTDC is the custodian of design specifications and as per NTDC's Design & Specifications, it clearly specifies the earthing of both the steel structures and PCC poles. Moreover, 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, neither any plan nor a single progress report has yet been submitted by the Licensee, despite the lapse of more than two years. Now, the Licensee has highlighted that around 60,000 Nos of Structures have been earthed to date. Therefore, on-ground performance on part of the Licensee cannot be considered significant. There are still 126,000 Nos. of structures that are required to be earthed and possess a potential risk of electrocution at any time in the future. As far as reasons regarding the business of staff in other tasks is concerned, it is clarified that nothing is more important than saving a human life. Hence, the Licensee should prioritize the tasks and understand the sensitivity of the issue, which unfortunately the Licensee could not do and failed to achieve the target in a timely manner.

16. The Licensee has submitted that engagement of not only Operation Formation staff but also staff of PD Construction in the Anti-Theft National Drive which is still going on in line with the directives of the Ministry of Energy Power Division Govt: of Pakistan, Islamabad affecting/making the progress down.

The Authority after analyzing the arguments put forth by the Licensee observes that the Licensee's argument that the Anti-Theft National Drive has slowed progress on earthing efforts is insufficient justification for delaying this essential task. While combating theft is important, it should not detract the Licensee from fulfilling safety obligations. Moreover, Resource allocation and staff management are the Licensee's responsibility, and it should have been planned accordingly to ensure that both initiatives are adequately addressed simultaneously.

The Licensee has submitted that it has chalked out a plan for the provision of earth to remaining HT/LT Steel Structures and after detailed deliberations, PD Construction has been directed to prepare the cost estimate and process the same on a priority basis, besides getting approval of same from CEO or from BoD of the Licensee if it requires as per monitory limits. Since the available stock of material being utilized for installation on 11kV feeders running in faraway isolated B-Areas having theft incidents on the peak due to weak writ of local administration and non-co-operation of LEAs with the Licensee, even then, this office and concerned field formations are notinuously making efforts and in liaison with Police / Levis Stations for lodging FIRs this regard.

The Authority after considering the submissions of the Licensee observes that the plan to provide earthing for the remaining structures, including the directive for PD Construction to prepare cost estimates, is a necessary step but belated. Given the significant delay in initiating this process and the pressing safety concerns, the Licensee should have taken more proactive measures earlier to secure materials and funding. The reliance on external factors, such as local administration and law enforcement

cooperation, does not absolve the Licensee from fulfilling its obligations in a timely manner.

# 18. 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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NEPRA AUTHORITY	Dated January 08, 2025
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