



Registrar

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAD-02/14634

September 18, 2024

Chief Executive Officer
Islamabad Electric Supply Company Limited (IESCO),
Street 40, G-7/4, Islamabad

SUBJECT: ORDER OF THE AUTHORITY IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO IESCO 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 10 pages) in the subject matter for information and compliance.

Enclosure: As above


(Syed Zavar Haider)



National Electric Power Regulatory Authority

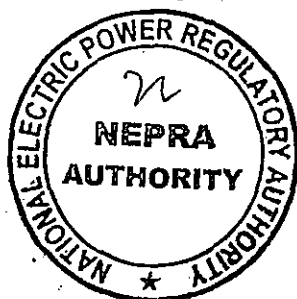
ORDER

**IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO IESCO 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. Islamabad Electric Supply Company Limited (IESCO) (the "Licensee") was granted a Distribution License (No. DL/01/2023) by the National Electric Power Regulatory Authority (the "Authority") on April 06, 2023, for providing Distribution Services in its Service Territory as stipulated in its Distribution License, pursuant to section 20 and 21 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 ("NEPRA Act").

Background:

2. The Authority during hearing dated February 03, 2022, in the matter of the Show Cause Notice issued to the Licensee on account of fatal accidents, observed that some of the fatal accidents occurred due to lack of earthing of HT/LT poles. Therefore, the Authority directed the Licensee to submit a comprehensive plan indicating the total number of HT/LT poles to be earthed along with specific timelines.
3. In pursuance to the directions of the Authority, the Licensee vide its letter No. dated February 25, 2022, submitted its response, which contained circle wise survey report of its poles/structures except Attock circle. The submitted survey report revealed the total number of 441,413 HT/LT poles are required to be earthed. Moreover, with regard to Islamabad Circle, the Licensee's report also showed that the 16,494 number of distribution boxes are also required to be grounded. However, the Licensee's report neither mentioned any plan for the execution of earthing/grounding of all remaining HT/LT poles along with distribution boxes nor any specific timelines.
4. Therefore, NEPRA vide letter dated March 10, 2022, directed the Licensee to submit the complete information as the survey report doesn't include the details of LT poles/structures of Attock Circle. The Licensee was further directed to submit a concrete plan pertaining to the execution of earthing/grounding of all the remaining HT/LT poles/structures along with D-boxes in Islamabad City. In response, the Licensee vide its letter dated March 29, 2022, submitted the requisite information, including the details of Attock Circle. The Licensee further committed that the completion of earthing of HT/LT poles will take tentatively one year and earthing/securing of distribution boxes in Islamabad Circle will be completed by the end of this year i.e. December 31, 2022.
5. The Authority considered the submissions of the Licensee and called the Licensee at NEPRA Headoffice to present its plan before the Authority for its consideration.



Accordingly, the Licensee presented its execution plan with respect to earthing/grounding of HT/LT poles/structures before the Authority on April 29, 2022. During the presentation, the Licensee again committed the timelines for earthing of Distribution Boxes in Islamabad circle and HT/LT poles/structures in all other circles by December 31, 2022, and June 2023 respectively. During the presentation, the Licensee was categorically directed by the Authority to submit the monthly progress reports pertaining to the execution and completion of earthing/grounding of the Licensee's distribution system.

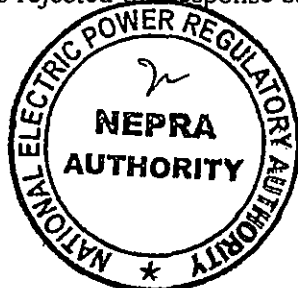
6. The matter was continuously pursued by NEPRA, and in response to the aforementioned NEPRA letters, progress reports were acquired from the Licensee which were being vigilantly monitored.
7. Moreover, as per the progress report submitted by the Licensee vide its letter dated June 08, 2023, the Licensee submitted that the target of D-Boxes earthing has been attained within the due date, however, due to unavoidable circumstances, the earthing of HT/LT poles has not been completed within due date. Furthermore, the Licensee also attached a copy of its letter dated May 29, 2023 addressed to NEPRA, wherein the total number of poles has been increased to 822,173 from 717,686 and the remaining number of poles/structures which are required to be earthed are also increased to 457,025 from 445,306. The Licensee executed earthing for only 80,068, poles/structures so far, whereas around 376,957 poles/structures were still required to be earthed, despite the expiry of deadline committed by the Licensee itself. This illustrated that the progress was very poor as the Licensee only carried out approximately 21% of earthing work in one year which seemed not sufficient from the safety point of view. That further depicted that the Licensee was lacking far behind in achieving its self-committed targets within the stipulated time i.e. June 30, 2023. The matter was taken up with the Licensee regarding its failure to meet deadlines. In response, the Licensee submitted that due to some unavoidable circumstances, it could not complete its earthing project.
8. Keeping in view the poor progress by the Licensee and subsequent failure of its own commitment in the matter of earthing of HT/LT structures/poles, 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) Regulation, 2021, vide NEPRA's letter dated July 06, 2023, on account of violation of Performance Standards, Distribution Code, Power Safety Code, and other applicable documents.
10. The Licensee vide its letter dated September 14, 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 December 07, 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 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 March 20, 2024, issued a 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:

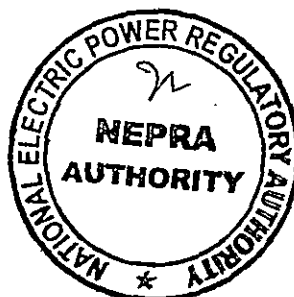
b. “A distribution company shall ensure that its distribution facilities do not cause any leakage of Electrical Current or Step Potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent 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 2.5Ω and 5Ω respectively.”

7. **WHEREAS**, pursuant to clause PR 1 Protection System Practices and System Co-ordination 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."

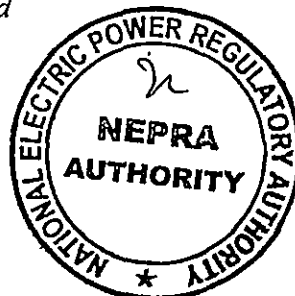
9. **WHEREAS**, the Authority issued an Explanation to the Licensee under Regulation 4(1) and 4(2) of NEPRA (Fine) Regulation, 2021 on July 06, 2023, on account of failure to execute earthing/grounding of HT/LT poles/structures in its service territory. The salient points of the said Explanation are reproduced below:

9. *"WHEREAS, during the hearing dated February 03, 2022, in the matter of the Show Cause Notice issued to IESCO on account of fatal accidents, it was observed that the distribution facilities of the Licensee 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 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; and*

10. *WHEREAS, in pursuance to the directions of the Authority, the Licensee vide its letter No. dated February 25, 2022, submitted its response, which contained circle wise survey report of its poles/structures except Attock circle. The submitted survey report revealed the total number of 441,413 HT/LT poles are required to be earthed. Regarding Islamabad Circle, the Licensee's report also showed that the 16,494 number of distribution boxes are also to be grounded. However, IESCO's report neither mentioned any plan for the execution of earthing/grounding of all remaining HT/LT poles along with distribution boxes nor any specific timelines; and*

11. *WHEREAS, NEPRA vide letter dated March 10, 2022, directed IESCO to submit the complete information as the survey report doesn't include the details of LT poles/structures of Attock Circle. The Licensee was further directed to submit a concrete plan pertaining to the execution of earthing/grounding of all the remaining HT/LT poles/structures along with D-boxes in Islamabad City. In response, the Licensee vide its letter dated March 29, 2022, submitted the requisite information, including the details of Attock Circle. The Licensee has further committed that the completion of earthing of HT/LT poles will take tentatively one year and earthing/securing of distribution boxes in Islamabad Circle will be completed by the end of this year i.e. December 31, 2022; and*

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12. **WHEREAS**, the Authority considered the submissions of the Licensee and called the Licensee at NEPRA Headoffice to present its plan before the honorable Authority for its consideration. Accordingly, the Licensee presented its execution plan with respect to earthing/grounding of HT/LT poles/structures before the Authority on April 04, 2022. During the presentation, the Licensee again committed the timelines for earthing of Distribution Boxes in Islamabad circle and HT/LT poles/structures in all other circles by December 31, 2022, and June 2023 respectively. The Authority considered the same and directed the Licensee to submit the monthly progress report in this regard; and

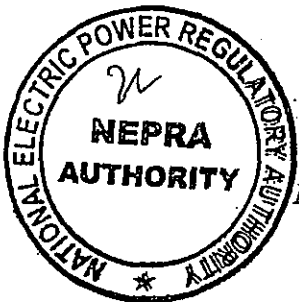
13. **WHEREAS**, accordingly, the Licensee vide its letter dated May 18, 2022, submitted the following details of its distribution facilities to be earthed/grounded:

Distribution Boxes		
Total Number	Already have Earthing	Required to be Earthed
18,767	2,273	16,494

Total Number of HT/LT Poles/Structures	Details of HT Poles/Structures			Details of LT Poles/Structures			Total Number of HT/LT Poles/Structures have Earthing	Total Number of HT/LT Poles/Structures to be Earthed
	Total Number of HT Poles/Structures	HT Poles/Structures have Earthing	HT Poles/Structures to be Earthed	Total Number of LT Poles/Structures	LT Poles/Structures have Earthing	LT Poles/Structures to be Earthed		
717,686	312,860	134,895	177,661	404,826	137,081	267,645	271,976	445,306

14. **WHEREAS**, Meanwhile, the Licensee vide its different letters submitted monthly progress reports pertaining to the execution of said work as per the directions of the Authority. Moreover, as per the latest progress report submitted by the Licensee vide its letter dated June 08, 2023, the Licensee has submitted that the target of D-Boxes earthing has been attained within the due date, however, due to unavoidable circumstances, the earthing of HT/LT poles has not been completed within due date. Moreover, the Licensee also attached a copy of its letter dated May 29, 2023 addressed to NEPRA, wherein the total number of poles has been increased to 822,173 from 717,686 and the remaining number of poles/structures which are required to be earthed are also increased to 457,025 from 445,306. Further, the Licensee has executed earthing for only 80,068, poles/structures so far, whereas around 376,957 poles/structures are still required to be earthed; and

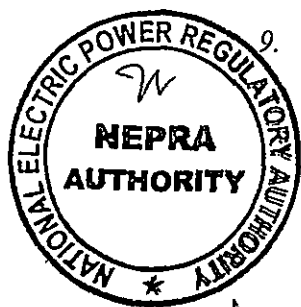
15. **WHEREAS**, the aforementioned submissions of the Licensee reveal that its progress is very much poor as it has only carried out 21% of earthing work in one year which seems not sufficient from the safety point of view. It further appears that the Licensee is lacking far behind in achieving its self-committed targets within the stipulated time i.e. earthing/grounding of total number of HT/LT poles by June 30, 2023. Hence it can be obviously said that either the plan submitted by the Licensee was not realistic or the progress of the Licensee



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in this regard is unsatisfactory and IESCO is not serious about the rectification of such dangerous hazards from their distribution system; and

16. **WHEREAS**, it is a matter of record that despite repeated and continuous correspondence, the Licensee has never mentioned about its unavoidable circumstances due to which it could not complete its earthing project. Further, the Licensee has three times changed its number of total HT/LT poles/structures which shows that the Licensee has still not properly completed its survey. Hence, it can be said that the plans/timelines submitted by the Licensee are not realistic and concrete. Therefore, the Licensee has, prima facie is in 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; 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 September 14, 2023, against the Explanations served, and a hearing in the matter was also held on December 07, 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 facie, 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 09, 2024, is attached herewith, mentioning the reasons of rejection; and"
13. In response, the Licensee vide its letter dated April 04, 2024 submitted its reply. The salient points of the same are as follows:



9. The Authority issued an Explanation to IESCO under Regulation 4(1) and 4(2) of NEPRA (Fine) Regulation, 2021 on July 06, 2023, on account of failure to execute earthing/grounding of HT/LT structures in its service territory. IESCO submitted its response to the explanation within the stipulated time and submitted the reasons in detail in its letter No. 4696-98/IESCO/CE-OD Dated 25/07/2023. Subsequently, an opportunity was provided to IESCO for personal hearing in the matter. During the hearing, the Authority acknowledged the efforts of IESCO to the extent that no fatalities in the jurisdiction of IESCO occurred because of the lack of earthing during the preceding fiscal year due to ongoing program of earthing in the

jurisdiction of IESCO. The salient feature of the our reply, the proceedings of the personal hearing that was conducted by the august Authority, and the progress made subsequently are given as under please:

- a. The survey regarding the HT/LT poles/structures was carried out in March, April 2022 and the total number of installed poles was found to be 717686 and the number of poles to be earthed was 445306. Owing to the extension/expansion of our network in the preceding 14 months the number of installed poles had increased from 717686 to 822173. By the passage of time the earthing of a number of poles had deteriorated which were identified during testing/checking the earth resistance. This resulted in the increase of the number of poles to be earthed from 445306 to 457025. A part of that increase in the number of poles was brought about by the counterchecking and reconciliation of the data.*
- b. Other reasons for the delay in the execution of the earthing of poles were: due to the economic situation of the country prevalent at that time, the vendors were struggling in opening of letters of credit (LCs) which led to the delay in delivery of materials to IESCO stores and acute shortage of staff.*
- c. The unavoidable reasons which has led to the execution of the project of earthing of poles have been communicated to the august Authority.*
- d. To accelerate the exercise of installation of earthing arrangement, IESCO has outsourced the work and contractors have been brought on board. Almost 80,000 earth rods have been installed across IESCO through contractors. It is anticipated that after the holy month of Ramadan the pace of contractors work will increase to meet the set target of completing the said work.*

The Progress of Earthing as on 31-Mar-2024 is as under:-

<i>Total No. of Poles (HT/LT)</i>	<i>Total No. of HT/LT Poles /Structures having earthing as on 31.03.2024</i>	<i>Balance</i>
822173	503026	319147

Hearing:

14. In order to fulfill the requirement of law, the Authority decided to provide an opportunity of 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 May 13, 2024, wherein, CEO IESCO along with his team, made the following submissions:

- i. A total no. of 822,173 HT/LT structures exist in the IESCO's Distribution System. With the passage of time, we have carried out earthing/grounding of a number of HT/LT structures. Currently, 295,000 number is pending which needs to be earthed/grounded. Overall, IESCO has done more than 50% of this task;

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- ii. It is a matter of fact that the delay has been occurred in execution of this task due to some reason such as shortage of material, import of material, non-opening of LCs, and delay in approval process due to incomplete BOD etc.;
- iii. Now all earthing/grounding material & staff are available and we shall complete 70% to 80% task in upcoming 2 to 3 months;
- iv. The earthing/grounding of four (04) circles namely Islamabad, Rawalpindi City, Rawalpindi Cantt and Jhelum is near to completion. Whereas, earthing/grounding of remaining two (02) circles will take few months more as their tenders were floated lately as compared to above four (04) circles.

Analysis/Findings:

15. The Licensee has submitted that the survey regarding the HT/LT poles/structures was carried out in March, April 2022 and the total number of installed poles was found to be 717,686 and the number of poles to be earthed was 445,306. Owing to the extension/expansion of our network in the preceding 14 months the number of installed poles have increased from 717,686 to 822,173. By the passage of time the earthing of a number of poles had deteriorated which were identified during testing/checking the earth resistance. This resulted in the increase of the number of poles to be earthed from 445,306 to 457,025. A part of that increase in the number of poles was brought about by the counterchecking and reconciliation of the data.
16. The Authority has considered the submissions of the Licensee and is of the considered opinion that the Licensee has itself admitted that the number of poles/structures to be earthed has been increased due to its network expansion. This reveals that the Licensee has failed to ensure the provision of earthing/grounding at the time of installation of new network which is a clear question on the implementation of the safety standards by the Licensee. In addition to the above, the Licensee has also submitted that the number has been increased due to counterchecking and reconciliation of data which also depicts the seriousness and ability of the Licensee while submitting data to the Regulator. The Licensee should be vigilant and proactive while submitting data to the Regulator, which it has failed to do so.
17. The Licensee has submitted that the reasons for the delay in the execution of the earthing of poles were due to the economic situation of the country prevalent at that time, the vendors were struggling in opening of letters of credit (LCs) which led to the delay in delivery of materials to the Licensee stores and acute shortage of staff. The Licensee has further submitted that the unavoidable reasons which has led to the execution of the project of earthing of poles have been communicated to the august Authority. Moreover, the Licensee has submitted that in order to accelerate the exercise of installation of earthing arrangement, the Licensee has outsourced the work and contractors have been brought on board. Almost 80,000 earth rods have been installed across the Licensee's territory through contractors. It is anticipated that after the holy month of Ramadan the pace of contractor's work will increase to meet the set target of completing the said work.
18. The Authority has gone through the submissions of the Licensee and observes that the Licensee has highlighted issues regarding economic constraints and staffing limitations, however, these factors do not absolve the Licensee from its responsibility to execute



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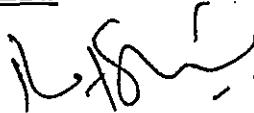
the task in a timely manner and subsequently to inculcate safety culture in its territory. It is a matter of record that in FY 2022-23, a total number of twenty-four (24) fatalities (8 Employees and 16 Public Persons) occurred in IESCO's territory, which is a clear reflection of the Licensee's poor efforts made in the removal of these type of severe safety hazards. Furthermore, proactive planning and exploration of alternative sourcing options could have mitigated the challenges regarding material procurement delays. Moreover, to effectively address this public safety issue, a more comprehensive and demonstrably accelerated plan required from the Licensee, however, it failed to do so. Submission of invalid reasons and trying to justify the delay shows the level of seriousness of the Licensee to execute the subject task. The Licensee has to understand the sensitivity of this issue and carry out this task in a robust manner so that fatalities especially due to lack of earthing could be avoided.

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 leads 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

Rafique Ahmed Shaikh
Member (Technical)



Engr. Maqsood Anwar Khan
Member (Licensing)



Mathar Niaz Rana (nsc)
Member (Tariff & Finance)

DID NOT ATTEND



Amina Ahmed
Member (Law)

Amina Ahmed

Waseem Mukhtar
Chairman

Waseem Mukhtar

Dated 18-09-, 2024

