



Registrar

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/DG(M&E)/LAG-292/ 14489

September 13, 2024

Chief Executive Officer
Huaneng Shandong Ruyi (Pakistan) Energy (Pvt.) Ltd.
House No. 4-A & B, Street No.20,
F-8/2, Islamabad.

Subject: Order of the Authority in the matter of Explanation issued to M/s Huaneng Shandong Ruyi (Pakistan) Energy (Pvt.) Ltd. under Regulation 4(1) & 4(2) of the NEPRA (Fine) Regulations, 2021

Please find enclosed herewith Order of the Authority (total 07 pages) in the subject matter for information and compliance.

Enclosure: As above

Wasim Anwar Bhinder
(Wasim Anwar Bhinder)

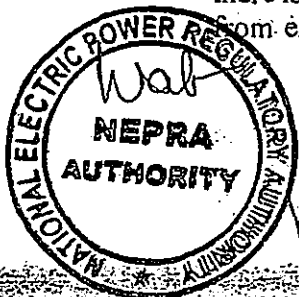


National Electric Power Regulatory Authority

In the matter of Explanation issued to M/s Huaneng Shandong Ruyi (Pakistan) Energy (Pvt.) Ltd. under Regulation 4(1) & 4(2) of the NEPRA (Fine) Regulations, 2021

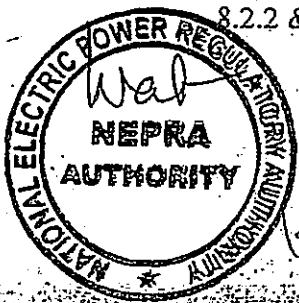
Order

1. Pursuant to Section 15 of the NEPRA Act (now section 14B after promulgation of Regulation of Generation, Transmission and Distribution of Electric Power Amendment Act 2018), the Authority has granted a Generation License (No. IGSPL/60/2015, dated 10/06/2015) to Huaneng Shandong Ruyi (Pakistan) Energy (Pvt.) Ltd. (hereinafter referred to as the "Licensee") to engage in the generation business as stipulated in its Generation License.
2. Pursuant to Section 14B(4) of the NEPRA Act, in the case of a generation facility connecting directly or indirectly to the transmission facilities of the national grid company, the licensee shall make the generation facility available to the national grid company for the safe, reliable, non-discriminatory, economic dispatch and operation of the national transmission grid and connected facilities.
3. As per Rule 10(6) of the NEPRA Licensing (Generation) Rules, 2000, the licensee shall at all times comply with the provisions of the Grid Code, including, without limitation, in respect of the availability of the net capacity or in respect of the outages, maintenance and operation of its generation facilities, and shall provide the national grid company with all information reasonably required by the latter to enable it to dispatch the generation facilities of the licensee.
4. Clause OC 8.1.1 of Operation Code-System Recovery of Grid Code deals with the procedures for the restoration of power supplies following a Total Shutdown or a Partial Shutdown of the System and the re-synchronization of specific parts of the System that have been islanded.
5. Clause OC 8.1.4 of Operation Code-System Recovery of Grid Code states that OC 8 applies to the System Operator, NTDC, distribution companies, Operators of power plants, and Users of the System. Contingency arrangements are required to be established by the System Operator with each externally-connected Party/consumers.
6. Clause OC 8.2.1 of Grid Code states that a total shutdown of the System is a situation when there is no internal generation online and operation and there is no power supply available from external-connections. The restoration of power supply from such a situation is a



Black start recovery. A partial shutdown is when there is no online operating generation or External Connection to a part of the System Operator to instruct Black Start Recovery procedures to restore supplies to that part of the system.

7. Clause OC 8.2.2 of Grid Code states that during restoration of power supplies following a Total Shutdown or Partial Shut Down of the System, it may be necessary to operate the system outside normal frequency and voltage as stated in OC 4. It may also be necessary for the System Operator to issue instructions that are contrary to the balancing mechanism or code, and also to normal contractual obligations in order to ensure restoration of supplies.
8. Clause OC 8.2.3 of Grid Code states that following a total Shutdown of the System designated power plants that have the ability to Start Up without any External Connection to the system shall be instructed to commence Black Start recovery procedures. These procedures, which are to be agreed in advance, may include the restoration of blocks of focal load demand that can be restored in agreement with the local distribution company. Local procedures may include the restoration of power supplies via Embedded Generators. The System Operator has the responsibility for the re-energization of the interconnected transmission system, and the re-synchronization of the stem blocks of islanded blocks of locally restored supplies.
9. The power system breakdown occurred on 23.01.2023 at 07:34:43:800 Hrs which plunged the whole country into darkness and the system was completely restored on 24.01.2023 after 20 hours approximately. NEPRA, being a regulator of power sector, took serious notice of the above incident and constituted an Inquiry Committee (IC) to probe into the matter. The IC visited power houses, grid stations, sites and offices in the process of inquiry. During the course of inquiry, the matter was examined in detail by inquiring the concerned officials and in the process, relevant documents were also obtained to arrive at the right conclusion.
10. The information related to supply restoration time of power plants and synchronization of their units after complete system breakdown dated 23.01.2023 was provided by System Operator (NPCC). The submitted information revealed that the supply at Licensee's bus bar was restored at 22:21 Hrs on 23.01.2023 and the Licensee was instructed by the NPCC through Notice to Synch (NTS) as per PPA to synch its Units 1 & 2 at 06:24 Hrs on 24.01.2023. However, the Licensee had synchronized its above-mentioned units at 07:35 Hrs and 20:25 Hrs on 24.01.2023 respectively i.e. after a lapse of 01:11 Hrs and 14:01 Hrs respectively, thereby, prima facie, the Licensee failed to comply with the NPCC's instructions in a timely manner as per terms & conditions of PPA which severely hampered the restoration process of power system.
11. In view of the above, the Authority observed that the Licensee was bound to follow the instructions of the NPCC, which it failed to do. Hence, the Authority observed that the Licensee has, prima facie, failed to comply with Section 14B (4) of the NEPRA Act, Rule 10(6) of the NEPRA Licensing (Generation) Rules, 2000 and Clauses OC 8.1.1, 8.1.4, 8.2.1 8.2.2 & 8.2.3 of the Grid Code. In view of the foregoing, the Authority decided to initiate



legal proceedings against the Licensee under NEPRA (Fine) Regulations, 2021 (hereinafter referred to as the "Fine Regulations, 2021").

Explanation:

12. Accordingly, an Explanation dated 22.09.2023 was issued to the Licensee under Regulation 4(1) & 4(2) of the Fine Regulations, 2021. The salient features of the Explanation are as follows:

WHEREAS, the National Electric Power Regulatory Authority (herein after referred to as the "Authority" or the "NEPRA") established under Section 3 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (herein after referred to as the "NEPRA Act") is mandated to regulate the provisions of electric power services; and

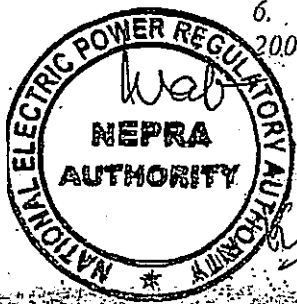
2. *WHEREAS, pursuant to Section 15 of the NEPRA Act (now section 14B after promulgation of Regulation of Generation, Transmission and Distribution of Electric Power Amendment Act 2018), the Authority has granted a Generation License (No. IGSPL/60/2015, dated 10/06/2015) to Huaneng Shandong Ruyi (Pakistan) Energy (Pvt.) Limited (hereinafter referred to as the "Licensee") to engage in the generation business as stipulated in its Generation License; and*

3. *WHEREAS, the power system breakdown occurred on 23.01.2023 at 07:34:43:800 Hrs which plunged the whole country into darkness and the system was completely restored on 24.01.2023 after 20 hours approximately. NEPRA, being a regulator of power sector, took serious notice of the above incident and constituted an Inquiry Committee (IC) to probe into the matter. The IC visited power houses, grid stations, sites and offices in the process of inquiry. During the course of inquiry, the matter was examined in detail by inquiring the concerned officials and in the process, relevant documents were also obtained to arrive at the right conclusion; and*

4. *WHEREAS, the information related to supply restoration time of power plants and synchronization of their units after complete system breakdown dated 23.01.2023 was provided by System Operator (NPCC). The submitted information revealed that the supply at Licensee's bus bar was restored at 22:21 Hrs on 23.01.2023 and the Licensee was instructed by the NPCC through Notice to Synch (NTS) as per PPA to synch its Units 1 & 2 at 06:24 Hrs on 24.01.2023. However, the Licensee had synchronized its above-mentioned units at 07:35 Hrs and 20:25 Hrs on 24.01.2023 respectively i.e. after a lapse of 01:11 Hrs and 14:01 Hrs respectively, thereby, prima facie, the Licensee failed to comply with the NPCC's instructions in a timely manner as per terms & conditions of PPA which severely hampered the restoration process of power system; and*

5. *WHEREAS, pursuant to Section 14B (4) of the NEPRA Act, in the case of a generation facility connecting directly or indirectly to the transmission facilities of the national grid company, the licensee shall make the generation facility available to the national grid company for the safe, reliable, non-discriminatory, economic dispatch and operation of the national transmission grid and connected facilities, subject to the compensation fixed by the Authority for voltage support and uneconomic dispatch directed by the national grid company; and*

6. *WHEREAS, according to Rule 10 (6) of the NEPRA Licensing (Generation) Rules, 2000, the licensee shall at all times comply with the provisions of the grid code, including,*



without limitation, in respect of the availability of the net capacity or in respect of the outages, maintenance and operation of its generation facilities, and shall provide the national grid company with all information reasonably required by the latter to enable it to dispatch the generation facilities of the licensee; and

7. *WHEREAS*, Clause OC 8.1.1 of Grid Code deals with the procedures for the restoration of power supplies following a Total Shutdown or a Partial Shutdown of the System and the re-synchronization of specific parts of the System that have been Islanded; and

8. *WHEREAS*, Clause OC 8.1.4 of Grid Code states that OC 8 applies to the System Operator, NTDC, distribution companies, Operators of the power plants, and Users of the System. Contingency arrangement are required to be established by the System Operator with each Externally-connected Party/Consumers; and

9. *WHEREAS*, Clause OC 8.2.1 of Grid Code states that a total shutdown of the System is a situation when there is no internal generation online and operation and there is no power supply available from external-connections. The restoration of power supply from such a situation is a Black start recovery. A partial shutdown is when there is no online operating generation or External Connection to a part of the System Operator to instruct Black Start Recovery procedures to restore supplies to that part of the system; and

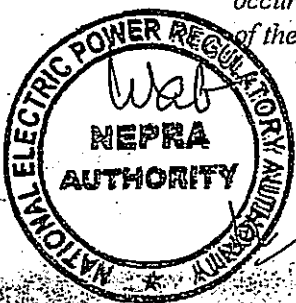
10. *WHEREAS*, Clause OC 8.2.2 of Grid Code states that during restoration of power supplies following a Total Shutdown or Partial Shut Down of the System, it may be necessary to operate the system outside normal frequency and voltage as stated in OC 4. It may also be necessary for the System Operator to issue instructions that are contrary to the balancing mechanism or code, and also to normal contractual obligations in order to ensure restoration of supplies; and

11. *WHEREAS*, Clause OC 8.2.3 of Grid Code states that following a total Shutdown of the System designated power plants that have the ability to Start Up without any External Connection to the system shall be instructed to commence Black Start recovery procedures. These procedures, which are to be agreed in advance, may include the restoration of blocks of focal load demand that can be restored in agreement with the local distribution company. Local procedures may include the restoration of power supplies via Embedded Generators. The System Operator has the responsibility for the re-energization of the interconnected transmission system, and the re-synchronization of the stem blocks of islanded blocks of locally restored supplies; and

12. *WHEREAS*, the Licensee was bound to follow the instructions of the NPCC, which it failed to do. Hence, the Licensee, prima facie, failed to comply with Section 14B (4) of the NEPRA Act, Rule 10(6) of the NEPRA Licensing Generation Rules, 2000 and Clauses OC 8.1.1, 8.1.4, 8.2.1 8.2.2 & 8.2.3 of the Grid Code; and

13. *WHEREAS*, the Licensee is required to follow the provisions of NEPRA Act, Rules & Regulations made thereunder, generation license, tariff determinations and other applicable documents and any violation thereof attracts appropriate proceedings against the licensee including but not limited to the imposition of fines under NEPRA (Fine) Regulations, 2021; and

14. *NOW THEREFORE*, in view of the above, Licensee is hereby called upon under Regulation 4(1) and 4(2) of the NEPRA (Fine) Regulations, 2021 to either admit or deny the occurrence of the above-mentioned violations of the Section 14B (4) of the NEPRA Act, Rule 10(6) of the NEPRA Licensing Generation Rules, 2000 and Clauses OC 8.1.1, 8.1.4, 8.2.1 8.2.2 & 8.2.3



of the Grid Code and in case of your failure to respond within fifteen (15) days of receipt thereof, the Authority shall proceed in accordance with law including but not limited to imposition of fine.

Licensee's Response:

13. In response, the Licensee submitted its reply vide letter dated 04.10.2023. The same has been summarized as under:
- i. The start-up in the event of an accident/blackout is different from the normal situation. As mentioned in PPA Section 5.9, there are special provisions for emergency conditions, which proves that the power purchaser i.e. CPPA-G also recognizes the difference in the event of an accident. There is nothing in this Section 5.9 that shall require the Company to operate the Plant in a manner inconsistent with technical Limitations, Grid Code or prudent Industry Practice.
 - ii. Moreover, Sahiwal Power Plant had diligently submitted blackout procedures to both NPCC and CPPA-G back in 2022. These procedures were designed to ensure the safety of personnel, the integrity of equipment and the stability of the national grid. However, NPCC and CPPA-G have not yet signed the same.
 - iii. HSR was racing against time. The loss of power on the entire network has caused damage to the equipment. HSR tried their best to repair the damaged equipment. Although some equipment were still not completely repaired but HSR started the Units with exiting defects. In fact in this blackout fiasco, Sahiwal Power plant faced a lot of damages and if analyzed properly, Sahiwal power plant is the affected party here.

CPPA-G and NPCC's Comments:

14. The response received from the Licensee was shared with CPPA-G and NPCC for their comments. In response, the comments received from CPPA-G are reproduced as follows:

"At the time of blackout on 23-Jan-2023 at 7:34 hours, only one Unit of the Complex was in operation while second Unit was under made standby since 20-Jan-2023. Following the restoration of Grid, NPCC issued NTS to both Units on 24-01-2023 at 06:24 hours. However, HSREL was not able to synchronize both Units on timely manner. Subsequently, based on NPCC verification, Available Capacity was not verified for the respective duration and applicable Liquidated Damages were also charged as per stipulated provisions of PPA.

NPCC issued the Despatch and NTS as per PPA and approved timings allowed by NEPRA in respective Generation License so the Company's point of view regarding power purchaser being inconsistent with Section 5.9 of PPA is not justified.

The time required by HSREL to synchronize with grid as submitted in Emergency Operating Procedures is not reasonable. Moreover, NPCC has proposed 4 additional hours for recovery of Complex in case of any Blackout. However, same shall be applicable prospectively from the date of signing of Operating Procedure subject to approval from NEPRA."



Similarly, NPCC submitted that it has proposed 4 additional hours for recovery of Complex in case of any Blackout.

Analysis/Findings of the Authority:

15. The Licensee has asserted that the start-up in the event of an accident/blackout is different from the normal situation and emphasized its responsible and prompt restoration efforts following prudent utility practices. Similarly, the Licensee has tried to justify the delay in synchronization by claiming the need for additional time to normalize various plant components in the event of a blackout. However, the Licensee's response raises concerns on multiple fronts:

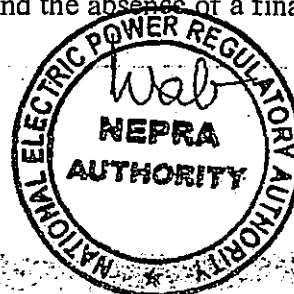
- i. Firstly, the Licensee has submitted that it had diligently submitted blackout procedures to both NPCC and CPPA-G back in 2022. These procedures were designed to ensure the safety of personnel, the integrity of equipment and the stability of the national grid. However, NPCC and CPPA-G have not yet signed the same. In this regard, the Authority observes that according to Rule 16(1) of the NEPRA Licensing (Generation) Rules, 2000:

"Not later than one hundred eighty days following the date of issue of the generation licence or the commissioning of the generation facility, whichever occurs later, the licensee shall prepare and file with the Authority, and shall at all times have in force and implement, an operating procedures manual covering all material operational, maintenance and similar other aspects relating to the generation facilities, with such details and particulars as may be specified in, or may be necessary or prudent to include to secure compliance with, the pooling and settlement arrangement, the grid code and the applicable distribution codes."

The generation license was granted to the Licensee on 10.06.2015, whereas, the Licensee achieved COD on 28.10.2017. Hence, the Licensee was required to prepare and file with the Authority, the operating procedures manual, not later than 180 days following 28.10.2017. However, the Licensee has failed to do so. Similarly, the Licensee failed to submit the said procedures to both NPCC and CPPA-G promptly, only doing so in 2022, nearly five years after its COD.

- ii. Furthermore, the comments received from CPPA-G also indicates that Units 1 & 2 of the Licensee did not synchronize with the National Grid in accordance with the NTS issued by NPCC.
- iii. NPCC's proposal for an additional 4 hours for the recovery of the Complex in the event of a blackout, indicates a recognition of the need for extended recovery times under certain conditions. However, any agreed-upon additional time between the Licensee, CPPA-G, and NPCC in this regard will be applicable prospectively i.e. from the date of signing of Operating Procedures, not retrospectively.

In light thereof, the Licensee's response is deficient in addressing the fundamental issues, such as the substantial delay in synchronization, and the absence of a finalized Operating



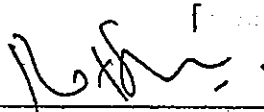
Procedure. The points raised by CPPA-G and NPCC further substantiate to the rejection of the Licensee's response as it does not adequately address the concerns raised by the Authority.

Decision:

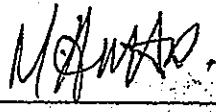
16. In view of the above, the Authority is of the considered opinion that the Licensee has failed to provide any satisfactory reply to the Explanation issued to it, therefore, decided to issue a Show Cause Notice to the Licensee in terms of Regulation 4(8) & 4(9) of the Fine Regulations, 2021.

Authority

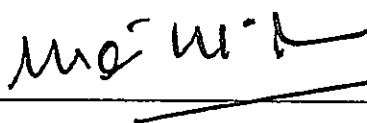
Rafique Ahmed Shaikh
Member (Technical)



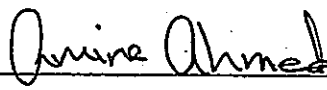
Engr. Maqsood Anwar Khan
Member (Licensing)



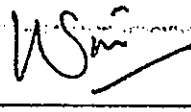
Mathar Niaz Rana (nsc)
Member (Tariff and Finance)



Amina Ahmed
Member (Law)



Waseem Mukhtar
Chairman



Announced on 13-09-2024 at Islamabad.

