National Electric Power Regulatory Authority
Islamic Republic of Pakistan

NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad.
Tel: +92-51-9206500, Fax: +92-51-2600026
Web: www.nepra.org.pk, E-mail: registrar@nepra.org.pk

Registrar

No. NEPRA/DG(M&E)/LAG-16 14302

September 11, 2024

Chief Executive Officer,
Rousch (Pakistan) Power Ltd.,
Descon Headquarter 18KM,
Ferozepur Road,
Lahore.

SUBJECT: **ORDER OF THE AUTHORITY IN THE MATTER OF EXPLANATION ISSUED TO M/S ROUSCH (PAKISTAN) POWER LTD. UNDER REGULATION 4(1) & 4(2) OF THE NEPRA (FINE) REGULATIONS, 2021**

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

Enclosure: As above

Wasim Anwar

(Wasim Anwar Bhinder)

National Electric Power Regulatory Authority

In the matter of Explanation issued to M/s Rousch (Pakistan) Power 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. IPGL/015/2003, dated 02/09/2003**) to Rousch (Pakistan) Power 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. 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 later 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

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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 reach to a just determination.

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 01:33 Hrs on 24.01.2023 and the Licensee was instructed by the NPCC through Notice to Synch (NTS) as per PPA to synch its GT-1, GT-2 & STG at 01:43 Hrs on 24.01.2023, 01:43 Hrs on 24.01.2023 & 02:58 Hrs on 24.01.2023 respectively. However, the Licensee had synchronized its above-mentioned units at 05:04 Hrs on 24.01.2023, 11:20 Hrs on 25.01.2023 & 11:33 Hrs on 25.01.2023 respectively i.e. after a lapse of 03:21 Hrs, 33:37 Hrs & 40:00 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 (herain 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. IPGL/015/2003, dated 02/09/2003) to Rousch (Pakistan) Power Ltd. (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 01:33 Hrs on 24.01.2023 and the Licensee was instructed by the NPCC through Notice to Synch (NTS) as per PPA to synch its GT-1, GT-2 & STG at 01:43 Hrs on 24.01.2023, 01:43 Hrs on 24.01.2023 & 02:58 Hrs on 24.01.2023 respectively. However, the Licensee had synchronized its above-mentioned units at 05:04 Hrs on 24.01.2023, 11:20 Hrs on 25.01.2023 & 11:33 Hrs on 25.01.2023 respectively i.e. after a lapse of 03:21 Hrs, 33:37 Hrs & 40:00 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. WHERAS, 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. WHERAS, 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,

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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. **WHERAS,** 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. **WHERAS,** 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. **WHERAS,** 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. **WHERAS,** 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. **WHERAS,** 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 local 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*

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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 09.10.2023. The same has been summarized as under:

i. The nationwide grid failure is indeed an 'emergency' scenario and cannot be equated with the ordinary procedure of re-energizing the system. It is an admitted position that no protocol or benchmarks exists under the PPA and Grid Code that deal with the synchronization of the Complex in such a scenario.

ii. As per the Explanation Letter, the supply at the Licensee's bus bar was restored at 01:33 Hrs on 24.01.23 and the Licensee was, inter alia, instructed by NPCC through NTS as per PPA to synch its STG at 02:58 Hrs on 24.01.23. It is further stated in the Explanation Letter that the Licensee had synchronized its STG at 11:33 Hrs on 25.01.23 i.e. after a lapse of 40:00 Hrs, thereby, failed to comply with NPCC's instructions in a timely manner as per the terms and conditions of PPA. It is pertinent to mention that the STG was delayed for 32:35 Hrs instead of 40:00 Hrs which shows a calculation error on the part of NPCC while calculating the hours for delay.

iii. Prior to the incident of nation-wide grid failure, the complex was not being given dispatch by the Power Purchaser for a considerable period spread over several weeks. Due to this prolonged non-dispatch by the Power Purchaser, the complex during the standby mode has to implement certain protocols required by OEM to maintain the complex in preservation mode which entail several steps. It is a technical requirement that the restoration time from the preservation mode of the complex has to implement additional measures which takes significantly longer period than the time required to bring the complex back from a normal shut-down state.

iv. Rousch plant, both according to the tariff and the contractual terms of the Company's PPA, lacks regulatory authorization to operate in a less efficient simple cycle mode. Therefore, NTDC and NEPRA should not base its restoration time calculation on the improbable, financially unviable, and unrealistic expectation of the plant operating in simple cycle mode.

v. NPCC instructed the Company to synchronize the Complex "as soon as possible". Accordingly, the Company resynchronized to the grid when it was technically possible to do so.

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 23-01-2023, Rousch Power was on Other Force Majeure Event owing to non-availability of RLNG.

The supply at the bus bar of Rousch Power was restored at 01:33 Hrs on 24.01.23 and the Complex was instructed by NPCC through NTS as per PPA to synch its STG at 02:58 Hrs on 24.01.23. However, Rousch Power synchronized its STG at 11:33 Hrs on 25.01.23 i.e., after a lapse of 32:35 Hrs, thereby, failed to comply with NPCC's instructions in a timely manner as per the terms and conditions of PPA.

Subsequently, based on NPCC verification, applicable LDs will be charged pursuant to provisions in the PPA at the end of relevant Agreement Year.

It is pertinent to mention that Rousch Power do not have open cycle tariff under PPA. Moreover, the Operating Committee in its meeting held on 23-11-2023 will discuss the Operating procedure related to "Recovery of Complex after Disconnection" to consider NPCC's proposed additional 150 minutes in addition to NTS for the restoration after blackout event."

Similarly, NPCC submitted that it issued NTS to the Licensee at 01:33 Hrs on 24.01.2023 to synch its GT-1, GT-2 & STG at 01:43 Hrs, 01:43 Hrs & 02:58 Hrs on 24.01.2023 respectively. However, the Licensee had synchronized its above-mentioned units at 05:04 Hrs on 24.01.2023, 11:20 Hrs on 25.01.2023 & 11:33 Hrs on 25.01.2023 i.e., after a lapse of 3:21 Hrs, 33:37 Hrs & 32:35 Hrs respectively.

Analysis/Findings of the Authority:

15. The Authority has reviewed the submissions of the Licensee, along with comments received from CPPA-G & NPCC, and observes that the GT-1, GT-2 & STG of the Licensee did not synchronize with the National Grid in accordance with the NTS issued by NPCC. However, the delay of STG is 32:35 Hrs instead of 40:00 Hrs as mentioned in the subject Explanation. In this regard, the Licensee has argued that the nationwide grid failure constitutes an emergency situation, distinct from the routine procedure of re-energizing the system and no established protocol or benchmarks exist within the PPA and Grid Code to address the synchronization of the Complex under such circumstances. In this regard, the Authority observes that the Licensee should have included any necessary additional time, agreed upon by CPPA-G and NPCC, for the recovery of the Complex from a total power system collapse in their operating procedures manual beforehand, which they failed to do. Hence, the stance adopted by the Licensee position is unjustified.

16. The Licensee has further contended that prior to the nationwide grid failure, the Complex had not been dispatched by the Power Purchaser for a significant period, resulting in the implementation of preservation mode protocols by the Complex in standby mode. These protocols, necessary to maintain the Complex, require additional measures for restoration, prolonging the recovery process beyond that of a normal shutdown state. In this regard, the Authority observes that the NTS was issued by NPCC considering the state of the Licensee's Complex at the time. Therefore, the argument put forward by the Licensee does not merit consideration.

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17. Moreover, the Licensee has submitted that its Complex lacks regulatory authorization to operate in a less efficient simple cycle mode, as per the tariff and contractual terms of the PPA. Therefore, NTDC and NEPRA should not base restoration time calculations on the assumption of the plant operating in simple cycle mode, which they deem financially unviable and unrealistic. In this regard, the Authority observes that even if the restoration time calculation is based on operating the plant in combined cycle mode, the delay of STG is estimated to be 32:35 hours. Hence, the stance adopted by the Licensee is unjustified.

Decision:

18. 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 11.09, 2024 at Islamabad.

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