National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Registrar

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No. NEPRA/DG(M&E)/LAG-03/24686 November 19, 2019

Chief Executive Officer
Northern Power Generation Co. Ltd. (NPGCL)
Thermal Power Station
Mahmood Kot Road
Muzaffar Garh

Subject: **IN THE MATTER OF SHOW CAUSE NOTICE ISSUED TO M/S NORTHERN POWER GENERATION COMPANY LIMITED (NPGCL, GENCO-III) UNDER RULE 4(8) OF NEPRA (FINES) RULES 2002**

Enclosed please find order dated November 19, 2019 (10 pages), passed by the Authority in the matter of Show Cause Notice issued to GENCO-III due to non-compliance of Generation License, Grid Code and other applicable documents under Rule 4 (8) of the NEPRA (Fines) Rules, 2002.

Encl: As above

19/11/19

(Syed Safeer Hussain)

National Electric Power Regulatory Authority

In the matter of Show Cause Notice issued to M/s Northern Power Generation Company Limited (NPGCL, GENCO-III) under Rule 4 (8) of NEPRA (Fines) Rules 2002

Order

1. Northern Power Generation Company Limited (GENCO-III) (hereinafter referred to as the "Licensee") was granted a Generation License (No. GL/03/2002) by the National Electric Power Regulatory Authority (hereinafter referred to as the "NEPRA" or "Authority") on 01.07.2002 under the then Section 15 of the NEPRA Act, 1997 (hereinafter referred to as the "Act") read with Rule 3 of the NEPRA Licensing (Generation) Rules, 2000.

2. Clause 12 of Sections - A & C of Schedule-I of the Generation License issued to the Licensee prescribes limits for auxiliary power consumption in respect of the units/machines of its power generation facilities, i.e. TPS Muzaffargarh and GTPS Faisalabad. The same is tabulated as under:

Power Station	Unit #	Auxiliary Consumption allowed under License (%)
TPS Muzaffargarh	1	6
	2	6
	3	6
	4	8
	5	9
	6	9
GTPS Faisalabad	1-8	Less than 1
	9	Less than 6

3. Clause 1.4.1.2 (a) of Scheduling and Dispatch Code of the Grid Code, 2005 requires a generation facility to maintain, repair and operate its units subject to the terms and conditions of Power Purchase Agreement (hereinafter referred to as the "PPA") with a view to provide power delivery, system support services and contracted capacity.

Background

4. A generation company is required to submit quarterly reports based on key indicators under Rule 5(2) of Performance Standards Rules, particularly with respect to Reference Capacity, Planned/Unplanned Outage Hours, Availability Factor, Net Capacity Factor and Net Output Factor. Accordingly, the Licensee submitted the quarterly reports for the FY 2014-15 and 2015-16.

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5. Based on data provided by the Licensee, a comprehensive Performance Evaluation Report (PER) was prepared, which mainly comprised of the following observations:

   i. Units 1 to 6 of TPS Muzaffargarh and unit 1 of GTPS Faisalabad of the Licensee consumed excess auxiliary power during service mode, ranging from **7.6% to 16.8%**, than allowed limit of **6% to 9%** as specified in its Generation License.

   ii. Units 3 to 6 of TPS Muzaffargarh, units 2 & 4 of GTPS Faisalabad, unit 1 of SPS Faisalabad and Units 1 to 3 of CCPP Nandipur availed higher outage hours, ranging from **1744 to 7405 hours**, than allowed limit of **1520 hours** as worked out from its PPA.

6. In view of above, the Authority observed that the Licensee has prima facie violated the terms and conditions, particularly Clause 12 of Sections - A & C of Schedule-I of its Generation License and Clause 1.4.1.2 (a) of Scheduling and Dispatch Code of the Grid Code, 2005. Therefore, the Authority decided to initiate legal proceedings against the Licensee under NEPRA (Fines) Rules, 2002 (hereinafter referred to as the "Fine Rules").

Explanation

7. Accordingly, an Explanation dated 09.01.2018 was issued to the Licensee under Rule 4 (1) & (2) of the Fine Rules. Salient parts of the Explanation are as under:

   3. *WHEREAS corresponding Clauses 12 & 12 of Sections-A & C of Schedule-I of the generation license of the Licensee prescribes limits for auxiliary power consumption in respect of its generation facilities, particularly TPS Muzaffargarh and GTPS Faisalabad: and*

   4. *WHEREAS the data pertaining to the total auxiliary power consumption as submitted by the Licensee in the annual provisional E-Forms for the FY 2014-15 and 2015-16 was analyzed and the Licensee was asked vide letter dated September 05, 2016, to segregate the % of auxiliary load consumed by the units/machines during normal operation mode and standby mode; and*

   5. *WHEREAS the Licensee vide letter dated February 10, 2017 in the annual provisional E-Forms for the FY 2014-15 and 2015-16 submitted the estimated share of auxiliary consumption during standby mode. Accordingly, the % auxiliary consumption during operation mode has been worked out and it has been observed that the same has exceeded the prescribed limits for units 1, 2, 3, 4, 5 & 6 of TPS Muzaffargarh and unit 4 of GTPS Faisalabad in the following manner;*

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Power Station	Unit #	Limits prescribed under License (%)	Auxiliary Consumption of the Licensee worked out during Operation Mode (%)	
			FY 2014-15	FY 2015-16
TPS Muzaffargarh	1	6	10.22	8.55
	2	6	8.77	8.16
	3	6	8.82	7.57
	4	8	16.84	11.97
	5	9	11.17	11.06
	6	9	13.01	12.53
GTPS Faisalabad	4	1	59.26	48.95

6. *AND WHEREAS exceeded auxiliary power consumption of TPS Muzaffargarh and GTPS Faisalabad has prima facie resulted in reduction of net capacity of these generating facilities of the Licensee, thus causing huge financial loss to the national exchequer; and*

7. *WHEREAS in terms of observations given in Para 5 to 6, the Licensee has prima facie violated the terms and conditions, particularly corresponding Clauses 12 & 12 of Sections-A & C of Schedule-I of its generation license; and*

8. *WHEREAS pursuant to Clause 1.4.1.2 (a) of the Scheduling and Dispatch Code of the Grid Code, 2005, a generation facility, subject to the terms and conditions of Power Purchase Agreement, is required to maintain, repair and operate its units with a view to provide power delivery, system support services and contracted capacity; and*

9. *WHEREAS in terms of Rule 4 and 5 of the NEPRA Performance Standards (Generation) Rules, 2009 (hereinafter referred to as "PSGR"), the Licensee has submitted data for the FY 2014-15 and 2015-16 in the manner prescribed in Form-I annexed to PSGR with respect to outage hours which reveal that the total outage hours consumed by units 3 to 6 of TPS Muzaffargarh, units 2 & 4 of GTPS Faisalabad and unit 1 of SPS Faisalabad have exceeded the limits prescribed in the PPA. Similarly, units 1 to 3 of CCPP Nandipur have also consumed more outages during the FY 2015-16, than the allowed limit as specified in the PPA. The same is illustrated as follows;*

Power Station	Unit #	FY 2014-15		FY 2015-16	
		Total Outage Hours	Allowed as per PPA	Total Outage Hours	Allowed as per PPA
TPS Muzaffargarh	3	1899	1520	-	-
	4	-	-	3351	1520
	5	-	-	2497	1520
	6	-	-	1744	1520
GTPS Faisalabad	2	2369	1520	7405	1520
	4	2465	1520	4176	1520

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Power Station	Unit #	FY 2014-15		FY 2015-16	
		Total Outage Hours	Allowed as per PPA	Total Outage Hours	Allowed as per PPA
SPS Faisalabad	1	-	-	5112	1520
CCPP Nandipur	1	-	-	2499	1520
	2	-	-	3159	1520
	3	-	-	2937	1520

10. *AND WHEREAS exceeded consumption of total outage hours of aforementioned units indicates that these units were not operated by the Licensee in accordance with the terms and conditions of the PPA, resulting in failure of the Licensee to maintain, repair and operate its units to provide power delivery, hence prima facie is in violation of Clause 1.4.1.2 (a) of the Scheduling and Dispatch Code of the Grid Code, 2005;*

8. The Licensee submitted its response to the abovementioned Explanation on 01.02.2018. The Authority considered the same and after detailed deliberations rejected the response to the Explanation giving reasons for such rejection vide order dated 28.08.2018.

Show Cause Notice

9. Accordingly, a Show Cause Notice No. 13517 dated 28.08.2018 was issued to the Licensee under Rule 4 (8) of the Fine Rules, based on violations alleged in the Explanation.

Submissions of the Licensee

10. The Licensee submitted its response to the abovementioned Show Cause Notice on 18.01.2019. Salient features of reply submitted by the Licensee are given below;

A. Excess Auxiliary Consumption:

i. NPGCL vide this office letter No. CEO/MZG/Dir (Tech)/1273-76 dated 01.02.2018, requested the honorable Authority for provision of working of NEPRA for calculation of Auxiliary consumption during operational period, however, the honorable Authority instead of providing the desired data, imposed Show Cause upon the Licensee. It is again requested to provide the working of NEPRA, so that comments can be furnished accordingly.

ii. Furthermore, NPGCL has filed Licensee Proposed Modification with NEPRA to align the Auxiliary consumption in Generation License and latest Tariff determination vide no. CEO/MZG/Dir (Tech)/5296 dated 15.02.2018, requesting to align;

a. Percentage Auxiliary being consumed by different plants of NPGCL GENCO-III as per latest Tariff Determination/Dependable Capacity Tests.

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b. Provision of % age Auxiliary Consumption for operation of the machines on part load.

As the said LPM is still pending at NEPRA's end, therefore the benchmarks of Auxiliary consumption are yet to be finalized and it is not logical to compare the actual values with undecided benchmarks and fix a fine.

B. Availing Higher Outages:

i. In pursuance of clause 7A-4(a) (i) of the Power Purchase Agreement signed between Northern Power Generation Company Limited and Central Power Purchasing Agency (Guarantee) Limited on dated 20.09.2015, CPPA-G has raised below mentioned invoices pertaining to Liquidated Damages for NPGCL TPS Muzaffargarh, on the grounds of availing excess forced outages than allowed in PPA.

a. CFO/DGMF(CA&T)/B&R/22314-17 dated 03.08.2018
b. CFO/DGMF(CA&T)/B&R/22606-09 dated 06.08.2018
c. CFO/DGMF(CA&T)/B&R/22610-13 dated 06.08.2018
d. CFO/DGMF(CA&T)/B&R/22614-17 dated 06.08.2018
e. CFO/DGMF(CA&T)/B&R/22618-21 dated 06.08.2018

As the matter is being dealt with by both parties as per relevant clauses of the PPA, therefore it is requested that Authority may please withdraw the show cause.

ii. Power Purchase Agreement signed between NPGCL and CPPA-G is based on Complex/Block wise rather unit wise, however NEPRA is having calculations on unit wise basis which is not as per PPA.

iii. NEPRA has calculated the "Allowed Hours as per PPA" as 1520 Hours per unit per year, completely ignoring the effect of Major Overhauling (MOH) which has to be availed every five years or after 36,000 running hours, whichever comes earlier.

For example, General Manager (System Operation) NPCC Islamabad approved Outage for the Unit # 3 TPS Muzaffargarh with effect from 01.02.2015 to 30.04.215 (90days; 2160 Hours) vide letter No. GM (SO)/ADD. DIR. PC-II/713 dated: 30.12.14 and was availed w.e.f. 04.02.2015 to 12.04.2015 (68 days, 1632 Hours) but the effect of same has not been taken into account, consequently outages of Unit-3 TPS Muzaffargarh seem to be on higher side while actually the outages availed are within limits as per PPA.

It is worth to mention that the effect of MOH has been taken into account by NEPRA in tariff determination vide No. NEPRA/TRF-304/NPGCL-

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2015/832-834 dated 22.1.2016, under Clause 18.15 stating.

"NPGCL is entitled for the outages as agreed with the Power Purchaser in the PPA i.e. 21% in the entire year."

This 21% comes out 1840 Hrs. Hence, 1840 Hrs per unit per year outages are allowed as per PPA.

iv. Furthermore, the Plants of TPS Muzaffargarh were designed to run on Mix Fuel Firing (Natural Gas & HSFO), however TPS Muzaffargarh has not received Natural Gas from the gas utility on a regular basis since 2007 and is forced to run on RFO alone on continuous basis causing increase in outages due to choking of RAH which has not been taken into account by CPPA while calculating the benchmark of allowed outages which is 432 hours per unit per year.

v. The provision of RAH washing was mistakenly ignored at the time of signing of PPA. However same has been allowed to other GENCOs like Jamshoro Power Company Limited (GENCO-I), having plants in operation on RFO. Being a common practice, the provisions of PPA need to be reviewed and NPGCL will formally submit its request for inclusion of RAH washing hours in allowed outages to be in line with other RFO plants and GENCOs.

Due to aging factor of the machines, some rehabilitation works were performed apart from Normal Maintenance activities. For Example:

a. Unit No. 4 TPS Muzaffargarh remained Shut down due to rehabilitation work of RAH-A and Calorifier-A & Adjustment of Generator H2 Seals w.e.f 01.11.2015 to 15.12.2015 (1076 Hrs).

b. Unit No. 5 TPS Muzaffargarh remained under Maintenance works w.e.f 1.12.2015 to 31.12.2015 (744 Hours) to Rehabilitate DCS System along with replacement of Boiler Auto Regulation System/Data Acquisition System, Turbine Auto Governing System installed by M/S Supcon China and Rehabilitation of FSSS by M/S Shangai Xinhua China.

vi. Despite valid agreement between M/s PSO and NPGCL signed in 2009, sometimes M/s PSO has failed to fulfill the contractual obligations and provide the required quantity of Furnace Oil for operation of the machines due to circular debt issues. The units are available but are unable to supply electricity to national grid and hence are considered as shutdown by NPCC/NEPRA. Units of TPS Muzaffargarh remaining on outage during 2015-16 on account of Furnace Oil shortages are tabularized as below:

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Unit No.	Date and Time	Hours
4	17.02.2016 to 15.03.2016	633
5	17.02.2016 to 29.02.2016	289
	01.03.2016 to 15.03.2016	338
6	17.02.2016 to 29.02.2016	289

Hearing

11. The Authority considered the response submitted by the Licensee and decided to allow an opportunity of hearing under Rule 4 (11) of the Fine Rules. Accordingly, hearing in the matter was held on 26.06.2019. During hearing, following submissions were made by representatives of the Licensee;

    i. NEPRA has worked out percentage auxiliary consumption on the basis of capacity of the plant, whereas, GENCO-III has calculated the percentage auxiliary consumption on the basis of units generated by the plant. Therefore, there was a misunderstanding on GENCO-III's part due to which internal error occurred in the calculation of percentage auxiliary consumption. In order to rectify the same, GENCO-III will re-work the percentage auxiliary consumption and submit the revised data to NEPRA in this regard.

    Accordingly, GENCO-III submitted the revised data pertaining to percentage auxiliary consumption vide letter dated 09.07.2019.

    ii. As far as availing higher outages than allowed in PPA is concerned, GENCO-III admits that there were forced outages but they were technically beyond the control of GENCO-III due to many reasons. Moreover, CPPA-G is already imposing LDs on GENCO-III on account of that violation.

Analysis/Findings of the Authority

A. Excess Auxiliary Power Consumption:

12. With respect to excess auxiliary consumption, the Authority observes from the data submitted by the Licensee in its quarterly reports for the years 2014-15 & 2015-16 that the auxiliary consumption of the Licensee ranged from 8% to 13% against the allowed limit of 6% to 9% as prescribed under Clause 12 of Sections A &C of Schedule I of the generation license issued to the Licensee. The Authority further observes that such exceeded auxiliary consumption of the units/machines of the generation facilities of the Licensee resulted in reduction of their net capacity that may cause a huge financial loss to the national exchequer.

13. The Licensee has submitted that partial load operation by the NPCC was the major reason of excess auxiliary consumption of the units/machines of its generation facilities during the

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FY 2014-15 and 2015-16. In this regard, the Authority has considered the submission of the Licensee and observes that the Licensee has failed to share the impact of per MW load reduction by the NPCC on the % increase in the auxiliary consumption of its units/machines. Therefore, the argument put forward by the Licensee is unjustified.

14. Moreover, during the hearing held on 26.06.2019, the Licensee has submitted that "NEPRA has worked out percentage auxiliary consumption on the basis of capacity of the plant, whereas, GENCO-III has calculated the percentage auxiliary consumption on the basis of units generated by the plant. Therefore, there was a misunderstanding on GENCO-III's part due to which internal error occurred in the calculation of percentage auxiliary consumption. In order to rectify the same, GENCO-III will re-work the percentage auxiliary consumption and submit the revised data to NEPRA in this regard." Accordingly, the Licensee submitted the revised data pertaining to percentage auxiliary consumption vide letter dated 09.07.2019. The same is as under;

GENCO's Working – TPS Muzaffargarh								
Unit No.	Gross Capacity	Limits prescribed under License	Net Availability		Actual Annual Auxiliary Consumption			
			2014-15	2015-16	2014-15		2015-16	
	MW	%	Hours		kWh	%	kWh	%
	A	B	C	D	E	F = E*100/(A*1000*C)	G	H = G*100/(A*1000*D)
1	200	6	7240	7240	102,724,502	7.09	91,463,164	6.32
2	200	6	7240	7240	82,365,964	5.69	77,322,817	5.34
3	200	6	6861	7240	69,455,017	5.06	70,726,433	4.88
4	300	8	7240	5409	132,757,191	6.11	113,320,771	6.98
5	200	9	7240	6263	80,254,070	5.54	71,042,347	5.67
6	200	9	7240	7016	84,187,607	5.81	78,973,371	5.63
Total	1300	-						

15. The Authority has examined the submitted data and observes that while calculating the percentage auxiliary consumption, the Licensee has assumed that its generation facility i.e. TPS Muzaffargarh had been operated at full load (1300 MW) by the system operator during the time of its availability during the FY 2014-15 and 2015-16. The Authority further observes that the approach adopted by the Licensee for calculating the percentage auxiliary consumption is highly unrealistic as the dependable capacity of TPS Muzaffargarh was only 1188 MW during the period under review as per the Energy Procurement Reports provided by CPPA-G. The Licensee has failed to submit any evidence on record to substantiate that during its time of availability as submitted in columns C & D in the abovementioned table, the gross capacity of the Licensee was 1300MW. Hence, the stance adopted by the Licensee is unjustified.

16. Moreover, the Licensee has submitted that it has filed an LPM to align the auxiliary consumption allowed in its Generation License with the latest tariff determination. The Licensee has further submitted that as the said LPM is still pending at NEPRA's end, therefore the benchmarks of auxiliary consumption are yet to be finalized and it is not logical to compare the actual values with undecided benchmarks and fix a fine. The

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Authority has gone through the submission of the Licensee and observes that the Licensee was obligated to apply for modification in its Generation License to update it with the existing tariff determination issued on 22.01.2016, however, the Licensee failed to do so until the legal proceedings were initiated by NEPRA.

It is clarified that LPM is a separate matter and will be dealt with in accordance with the procedure prescribed under relevant law. Further, modification in license was filed after initiation of legal proceedings, therefore, instant proceedings cannot be put on halt. Moreover, even if the limit for auxiliary consumption as mentioned in the existing tariff determination issued to the Licensee is considered as benchmark, the liability of the Licensee for excess auxiliary consumption is not absolved as the actual auxiliary consumption of the Licensee is beyond the allowed limit in both the cases. Hence, the argument put forward by the Licensee does not merit consideration.

17. In view of foregoing, the Authority observes that the Licensee has violated the terms and conditions, particularly Clause 12 of Sections – A & C of Schedule-I of its Generation License by consuming excess auxiliary power during service mode than allowed limit as specified in its Generation License during the FY 2014-15 and 2015-16 as well as tariff determination dated 22.01.2016.

B. Availing Higher Outage Hours:

18. The Licensee has submitted that pursuant to clause 7A-4(a)(i) of the PPA, CPPA-G has raised invoices pertaining to LDs to the Licensee on account of availing excess forced outages than allowed in PPA. The Licensee has further submitted that in order to avoid double penalty on the same violation, the Authority is requested to please withdraw the Show Cause Notice to this extent. The Authority has gone through the submission of the Licensee and accepts the response of the Licensee on this account as CPPA-G has already imposed LDs on the Licensee on the same account.

Decision

19. Keeping in view the relevant provisions of the NEPRA Act, Generation License, Grid Code, applicable documents, submissions of the Licensee and available record, the Authority decides that;

i. The Licensee has violated the terms and conditions, particularly Clause 12 of Sections – A & C of Schedule-I of its Generation License by consuming excess auxiliary power than allowed limit as specified in its Generation License, during the FY 2014-15 and 2015-16. Therefore, the Authority imposes a fine of **Rs. 1,000,000 (One Million)** on the Licensee.

ii. The Authority accepts the response of the Licensee on account of availing higher outages than allowed limit as specified in its PPA as CPPA-G has already imposed LDs on the Licensee on the same account.

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20. Accordingly, the Licensee is directed to pay the fine to the tune of **Rs. 1,000,000 (One Million)** in designated bank of the Authority within a period of 15 days after 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 shall recover the amount due under section 41 of the Act read with relevant provisions of the Fine Rules as arrears of the land revenue.

Authority

Engr. Bahadur Shah
Vice Chairman/Member (M&E)`

Saif Ullah Chattha
Member (Tariff)

18.11.2019

Tauseef H. Farooqui
Chairman

Announced on 19-11-2019

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