National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Registrar

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

No. NEPRA/R/ADG(Tariff)/TRF-271/NPGCL-2014/ 11628-32 July 30, 2025

Subject: **Decision of the Authority in the matter of joint application filed by CPPA-G and Northern Power Generation Company Limited for reduction in tariff Components of Nandipur Power Plant**

Dear Sir,

Please find enclosed herewith the subject Decision of the Authority (total 07 page) in the matter of joint application filed by CPPA-G and Northern Power Generation Company Limited for reduction in tariff Components of Nandipur Power Plant in Case No. NEPRA/ TRF-271/NPGCL-2014.

2. The Decision is being intimated to the Federal Government for the purpose of notification in the official Gazette pursuant to Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 within 30 days from the intimation of this Decision. In the event the Federal Government fails to notify the subject tariff Decision within the time period specified in Section 31(7), then the Authority shall notify the same in the official Gazette pursuant to Section 31(7) of NEPRA Act.

Enclosure: **As above**

Wasim Anwar

(Wasim Anwar Bhinder)

Secretary
Ministry of Energy (Power Division),
'A' Block, Pak Secretariat
Islamabad

Copy to:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.
3. Chief Executive Officer, Central Power Purchasing Agency Guarantee Limited (CPPA-G), Shaheen Plaza, 73-West, Fazl-e-Haq Road, Islamabad
4. Chief Executive Officer, National Power Parks Management Company (Pvt.) Ltd. Second Floor 7-C-1, Gulberg-III, Lahore

DECSISION OF THE AUTHORITY IN THE MATTER OF JOINT APPLICATION FILED BY CPPA-G AND NORTHERN POWER GENERATION COMPANY LIMITED FOR REDUCTION IN TARIFF COMPONENTS OF NANDIPUR POWER PLANT

1. INTRODUCTION

1.1. Central Power Purchasing Agency (Guarantee) Limited (CPPA-G) signed MoUs dated January 22, 2025 with Northern Power Generation Company Limited (NPGCL) of its Nandipur power project.

2. FILING OF JOINT APPLICATION

2.1. CPPA-G and NPGCL vide letter dated April 14, 2025 filed joint application for reduction in tariff components pursuant to the MoU on following grounds:

i. O&M indexation mechanism

ii. Maximum limit of insurance premium

iii. Foreign ROE and ROEDC components

iv. Hybrid Take and Pay model for ROE

2.2. Northern Power Generation Company Limited (NPGCL) vide letter No. NPGCL/CEO/NNP/1932 dated April 25, 2025 submitted that NPGCL and CPPA-G jointly filed an addendum dated April 14, 2025 to the tariff modification petition dated August 15, 2022 in respect of Nandipur. According to NPGCL, addendums dated October 13, 2022 and November 21, 2024 to the tariff modification petition were also submitted. NPGCL requested the Authority to decide the addendum dated April 14, 2024 together with main tariff modification application.

2.3. It would be pertinent to highlight that the joint application of Nandipur was admitted as a separate application and has different grounds from the pending tariff modification petition. Accordingly, decision of the instant application cannot be linked with the tariff modification petition.

3. HEARING

3.1. Public hearing in the matter was held on April 24, 2025 which was attended by the representatives of CPPA-G and power plant.

4. POST HEARING COMMENTS OF STAKEHOLDERS

4.1. The Korangi Association of Trade and Industry (KATI) vide letter dated April 19, 2025 submitted following comments:

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

- We appreciate NEPRA's initiative to revisit the tariff structure of key government owned combined cycle power plants including Balloki, Haveli Bahadur Shah, Guddu (747 MW) and Nandipur. The proposed revisions in indexation, insurance and capacity charges are timely and aligned with the objective of reducing end-user electricity costs.

- However, the core issue that continues to prevent these highly efficient plants from securing a higher position in the merit order is the high fuel cost of RLNG, currently exceeding USD 13.48/MMBtu, equivalent to approximately Rs.3,774/MMBTU. This translates into a per unit generation cost of Rs. 26 – 27 which remains economically uncompetitive despite these plants having world class heat rates and low operational downtime

- As we all know after the imposition of levy, Captive power using 350 MMCFD Pipe Line Gas will now eventually shift to grid. To enable these Turbine plants to contribute meaningfully to the national energy mix, we strongly recommend the blending of RLNG with domestic pipeline gas which is priced at Rs. 1,050 to Rs. 1,778 per MMBTU for the power sector. A 50:50 fuel blend would yield an effective fuel cost of Rs. 2,412 /MMBTU, bringing per unit electricity cost down to approximately Rs. 16.88 and generating savings of Rs. 9 – 10 per unit

- This same mechanism must also be extended to K-Electric's BQPS-III, a modern 900 MW RLNG – based combined – cycle plant. Currently, the high RLNG cost at BQPS-III contributes significantly to elevated Fuel Cost Adjustments (FCA) in Karachi. By adopting a fuel blending strategy and supplying cheaper pipeline gas, the following benefits can be achieved:

  - ✓ Fuel cost per unit at BQPS-III would reduce from Rs. 26 to Rs 16-17
  - ✓ Karachi's monthly FCA burden would drop, easing pressure on residential, commercial and industrial consumers
  - ✓ For even BQPS-II, which is a 47.47% efficient plant such a blend could be introduced.
  - ✓ The national government would save billions in annual KE subsidy payouts.
  - ✓ Dispatch of BQPS-III would become more consistent and merit aligned

- Based on BQPS-III's capacity and operational utilization (~80%), monthly fuel savings from blending would be approximately Rs. 5 – 6 Billion, purely from Karachi's power generation.

- Following policy actions are proposed for NEPRA's consideration

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

89

- ✓ Recommend a formal fuel blending policy to the Ministry of Energy to enable RLNG-based plants to receive a mixed gas supply for economic dispatch
- ✓ Adjust tariff benchmarks for government owned and K-Electric plants to reflect the expected lower blended fuel cost
- ✓ Allocated up to 350 MMCFD of domestic pipeline gas, freed up through the recent levy on captive plants to these efficient generation facilities
- ✓ Ensure pipeline gas is prioritized for BQPS-III, as Karachi lacks alternate generation options and depends heavily on KE's base load plants
- ✓ Monitor real-time merit order dispatch to guarantee least-cost dispatch, particularly, as these plants become cost effective through blending

- Lastly, we would like to emphasize that even a modest increase in domestic gas prices for non-priority consumers (by ~33%) is both absorbable and socially acceptable, especially if it enables an electricity cost reduction of Rs. 2-3/unit countrywide. Given that electricity forms a far larger share of household and industrial energy bills than gas, this trade-off would result in net savings and promote energy efficiency without political backlash.

5. <u>CONSIDERATION OF THE VIEWS OF THE STAKEHOLDERS, ANALYSIS AND DECSISION</u>

5.1. The issue wise discussion, submissions of stakeholders, analysis and decision are provided in the succeeding paragraphs.

a) Indexation of O&M Components

5.2. The O&M components as determined by NEPRA (for the quarter ended December 31, 2024) shall continue as revised reference with the following indexation mechanism:

i. Local O&M

5.3. As per the applications, Fixed and Variable O&M – Local shall be indexed with lower of (a) five percent (5%) per annum or (b) the actual average National Consumer Price Index (NCPI) for the preceding twelve months.

ii. Foreign O&M

5.4. As per the applications, Fixed and Variable O&M – Foreign shall be indexed as per the existing mechanism provided that the PKR / USD depreciation shall be allowed only to the

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

extent of 70% of actual depreciation per annum. In case the PKR appreciates against USD in a year, then 100% of such appreciation shall be passed on to the consumers.

5.5. The submissions of the applicants have been reviewed. It would be pertinent to mention that same mechanism was requested in the joint applications filed by CPPA-G and IPPs for reduction in tariff component. Accordingly, in line with IPPs, the Authority has decided to approve following indexation mechanism for O&M components:

a) Local O&M components (Variable and Fixed) shall be indexed on quarterly basis until either the cumulative increase reaches the maximum limit of 5% or average annual NCPI value, whichever shall be lower. The reference values for the entire year shall remain fixed. The final indexed component and average NCPI for the preceding shall serve as the reference for the subsequent year.

b) Foreign O&M components (Variable and Fixed) shall be indexed quarterly on the basis of 70% of the cumulative rupee devaluation against US dollar. In case rupee appreciates against US Dollar, 100% of the same shall be passed on to the consumers. The reference values for the entire year shall remain fixed. The final indexed component and exchange rate at the end of the year shall serve as the reference for the subsequent year.

5.6. The revised indexation mechanism shall be effective from February 01, 2025.

b) Insurance

5.7. As per the application, the maximum insurance cap has been revised to 0.9% of the allowed EPC. Actual insurance cost shall be allowed subject to maximum limit.

5.8. The submission of the applicants has been examined. The existing maximum insurance cap is 1% of the EPC cost. The revised limit is lower than the existing limit and is in the interest of consumers, therefore, the same has been approved by the Authority.

c) Foreign ROE Component

5.9. As per the application, the foreign component of ROE and ROEDC as determined by NEPRA for the Oct-Dec 2024 quarter shall be recomputed based on 13% rate of return, at the fixed exchange rate of PKR 168 / USD. Thereafter, there shall be no exchange rate indexation.

5.10. The application also states that the ROE component has been recomputed ignoring the ROEDC component not being available as a part of tariff. Therefore, the impact of ROEDC redeemed, if any, may please be considered while determining the tariff on part of NEPRA.

5.11. The submissions of the applicants have been examined. Currently, 10% return is allowed with dollar indexation. The Authority vide its decision dated January 27, 2016 approved reference ROE component of Rs. 0.7760/kW/h on the basis of IRR of 15%, equity of US$

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

146.27 Million (Rs. 15,066 Million) and ROEDC of US$ 51.14 Million (Rs. 5,267 Million). Subsequently, in compliance with the CCOE's decision dated August 27, 2020, the Authority revised ROE components vide decision dated April 11, 2022 on the basis of IRR of 10%, equity of US$ 146.27 Million (Rs. 15,066 Million) and recomputed ROEDC of US$ 33.09 Million (Rs. 3,409 Million).

5.12. This approach was inconsistent with the mechanism adopted at that time for revision in ROEs of thermal IPPs established under the 2002 power policy, wherein the ROEDC approved at the time of COD was not recomputed at revised rate of return. Instead, the outstanding ROEDC as on effective date of revision was used to calculate annuity on revised return. Moreover, in recent joint applications submitted by CPPA-G and IPPs for reduction in tariff components, the foreign ROE and ROEDC components of Attock Gen, Foundation Daharki, Saif Power and Sapphire Electric were also revised using the outstanding ROEDC amount as on the effective date of the agreement.

5.13. Accordingly, in order to ensure consistency and fairness, the revised ROEDC amount has been recalculated on the basis of ROEDC approved in reference tariff reduced by the redeemed ROEDC till effective date for computation of revised ROE component. The parameters along with revised ROE component is provided hereunder:

Description	Unit	Nandipur
Construction Period	Months	48
Equity	US$ Mil	146.27
Outstanding ROEDC	US$ Mil	49.28
Return (%)	%	13%
Exchange Rate	Rs. /US$	168
ROE Component	Rs./kW/h	1.1067
Requested ROE		1.0038
Difference		0.1029

5.14. The above calculation was shared with CPPA-G vide email dated June 03, 2025 for review and comments. Reminder email in the matter was sent on June 11, 2025, however, no comments were received from CPPA-G.

5.15. The comparison of existing and revised ROE component is provided hereunder:

Power Plant	Fuel	Existing	Revised	Difference
		(Rs. /kW/h)		(%)
Nandipur	Gas	1.2816	1.1067	(14%)

5.16. Keeping in view the above discussions, the Authority has decided to revise ROE component on the basis of requested return of 13% and fixed exchange rate of Rs. 168/US$ with no further indexation in future. The revised ROE component shall be effective from February 01, 2025

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

5.17. Furthermore, in case of Nandipur, the application states that the proposed tariff is computed on the basis of net capacity of 507.23 MW as determined through the Initial Dependable Capacity Test. However, the existing tariff of Nandipur is based on net capacity of 450.47 MW. The issue of revised capacity will be addressed in the COD true up decision of the Authority and all components shall be adjusted downward as per tested net capacity. Accordingly, the revised ROE component in the instant case is recomputed on the basis of Net Capacity of 450.47 MW.

d) Hybrid Take and Pay Model

5.18. As per the application, the Parties have agreed to implement a 'Hybrid Take-and-Pay Model'. The plant will be entitled to 35% of the revised ROE component (including ROEDC) of tariff as part of CPP which will be computed as per the existing terms of the PPA. In case the despatched and delivered Net Electrical Output (NEO) exceeds 35% of the total contract capacity in terms of kWh, then IPPs will be entitled to receive ROE component of tariff which shall be calculated on the actual NEO exceeding 35% of the total contract capacity in terms of kWh and IPPs shall claim the differential CPP accordingly.

5.19. The submissions of the applicants have been reviewed. The arrangement has been mutually agreed between the parties and is in the interest of the consumers and also in line with the mechanism adopted in case of IPPs. Accordingly, the same is being approved.

6. ORDER

I. The Authority hereby modify and approve its earlier decisions in the matter of Nandipur Project of Northern Power Generation Company Limited to the extent of following:

Tariff Component	Rs. /kW/h	Indexation
ROE	1.1067	Nil

II. The O&M indexation mechanism is also modified to the following extent:

a) Local O&M components (Variable and Fixed) shall be indexed on quarterly basis until either the cumulative increase reaches the maximum limit of 5% or average annual NCPI value, whichever shall be lower. The reference values for the entire year shall remain fixed. The final indexed component and average NCPI for the preceding shall serve as the reference for the subsequent year.

b) Foreign O&M components (Variable and Fixed) shall be indexed quarterly on the basis of 70% of the cumulative rupee devaluation against US dollar. In case rupee appreciates against US Dollar, 100% of the same shall be passed on to the consumers. The reference values for the entire year shall remain fixed. The final indexed component and exchange rate at the end of the year shall serve as the reference for the subsequent year.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY NEPRA AUTHORITY

c) The indices used in the quarterly indexation determined by NEPRA for the period October – December 2024 shall prevail as reference for the first year's indexation.

III. The insurance component shall be adjusted annually on the basis of actual cost subject to maximum insurance cap of 0.90% of the EPC cost.

IV. Hybrid Take & Pay arrangement for payment of ROE component on the basis of Net Electrical Output exceeding 35% of the total contract capacity in terms of kWh. Up to 35%, the existing mechanism shall prevail.

V. The revised tariff components along with revised indexations shall be effective from February 01, 2025.

NOTIFICATION

The above Order of the Authority is intimated to the Federal Government for notification in the Official Gazette in terms of Section 31(7) of the Regulations of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY

Engr. Rafique Ahmed Shaikh
Member

Amina Ahmed
Member

Engr. Maqsood Anwar Khan
Member

Wāseem Mukhtar
Chairman

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY