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EXTRA ORDINARY, PART-I

National Electric Power Regulatory Authority

NOTIFICATION

Islamabad, the 27th day of May, 2022

S.R.O. 743 (I)/2022.- In pursuance of Sub-Section 7 of Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997), NEPRA hereby notifies the Decision of the Authority in the matter of Petition filed by Northern Power Generation Company Ltd. for Modification/Revision of Reference Tariff of Combined Cycle Power Plant (CCPP) Nandipur in Case No. NEPRA/TRF-271/NPGCL-2020

2. While effecting the Decision, the concerned entities including Central Power Purchasing Agency Guarantee Limited (CPPAGL) shall keep in view and strictly comply with the orders of the courts notwithstanding this Decision.

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(Syed Safeer Hussain)
Registrar

The Authority, in exercise of the powers conferred on it under Section 7(3) (a) read with Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, Tariff Standards and Procedure Rules, 1998 and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by the parties, issues raised, evidence/record produced during hearing, and all other relevant material, hereby issues this determination.

AUTHORITY

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(Rehmatullah Baloch)
Member

(Engr. Rafique Ahmed Shaikh)
Member

Agreed with the recommendation of Member NSC except the recommendation at 46(7) which has been addressed by the Tariff Expert at Para 15 of the draft decision

(Engr. Maqsood Anwar Khan) 26.4.22
Member

My Additional Note is attached.

(Tauseef H. Farooqi)
Chairman

⊗ My observations:

1. This project was conceived in the year 2005 and took very long time to achieve COD. Chronology of events is discussed in Tariff determination, 2016 comprising of Project commissioning on RFO, and then conversion on Gas/RLNG etc.

2. This power plant was initially allowed to operate on RFO and gas as alternate fuel while HSD was allowed for starting process. However, its conversion from RFO to gas/RLNG as primary fuel was also considered, and agreed while granting the licence to this power plant. The conversion on gas was agreed on the premise that Firm Gas/RLNG will be available to the plant in future. However, no Firm Gas Supply Agreement executed between the Power plant and the Gas Supply Company is placed before Authority.

3. Since May 2017, this power plant has been producing electricity on ~~different fuels~~ gas/RLNG, and this plant has no provision to operate on RFO as alternate fuel. The Project has not submitted the Licensee Proposed Modification

so far. The project has submitted the modification petition very late and that too after incurring the expenditure. The modification petition is for regularizing the expenditure.

4. The performance of this plant is not very good & satisfactory and requires detailed financial & technical audit to exactly know the losses incurred by this power plant. My observations on this Modification petition are as follows:

(a) Costs allowed by the Authority vide the notified Tariff determination can only be adjusted to the extent it is allowed by the Authority and no new cost can be allowed to the power plant now.

(b) Requested assessed cost for conversion from RFO to Gas/RLNG as primary fuel shall be linked to Firm Gas Supply Agreement and availability of the gas shall be responsibility of the power producers. The burden of non-availability of gas shall not be passed on to consumers, and no capacity be made in case of non-availability of RLNG, and it be considered as non-available.

(c) With regard to receiving of gas compressor booster station from Engro Fertilizer against utilization of 60 MMCFD gas quantity from 15.05.2015 to 31.03.2016, I am of the opinion to conduct an investigation that under which provision of law this transaction was made.

(d) With regard to adjustment in heat rate or any other factor, I am of the considered opinion that it should be done strictly in accordance with the provisions of already notified tariff determination.

B/10/22

11.04.22

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Additional Note

1. Reference Honourable Member (M&E) observation at 4(a), there are three types of costs which have been requested in the instant petition. First type of costs are those which have no openers and are not allowed in the instant decision such as fuel testing cost, power dispersal cost, project resumption cost, savings in KIBOR, onetime adjustment in heat rate, insurance cost and pre-COD operating cost. Second type of costs are those which have openers and the Petitioner has provided verifiable documentary evidence, therefore, the same have been allowed such as cost of gas infrastructure pipeline, gas conversion cost, part of civil works cost and EPC cost payables. Third type of costs are those where the Petitioner has incurred additional costs and filed the instant tariff modification petition along with documentary evidence such as cost of spare parts inventory for 3rd GT, planned civil works cost, O&M cost as per O&M Agreement, cost of SBLC and engineering and consultancy cost. The same were considered, found justified and accordingly approved.

2. Regarding observation at 4(b), the same has been addressed under Para 26.4 of the instant decision.

3. Regarding observation at 4(c), no cost has been allowed on account of gas compressor station. As discussed under Para 9 of the instant decision, the issue of acquisition of gas booster compressor station in consideration of gas quota pertains to Central Power Generation Company Limited (CPGCL). Monitoring & Enforcement Department of NEPRA is being directed to conduct the investigation that under which provision of law this transaction was made and submit its report for consideration of the Authority. Therefore, I believe the observation stand addressed.

4. Regarding observation at 4(d), no adjustment has been made in the heat rate or any other factor as discussed under Para 18 of the instant decision, therefore, the observation stand addressed.

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Tauseef H. Farooqi
Chairman

2 (a)

1. BACKGROUND

1.1. Consequent upon the restructuring of power wing of Pakistan Water and Power Development Authority, hereinafter referred to as the "WAPDA", its thermal power generation facilities has been split up into four (4) independent generation companies, which are known as GENCO(s). Northern Power Generation Company Limited, hereinafter referred to as "NPGCL" or the "Company", was registered under the Companies Ordinance 1984 on 15th October 1998 as a public limited company. NPGCL commenced its commercial operation on March 01, 1999. It was originally organized to take over all the properties, rights, assets, obligation and liabilities of Power Stations of Thermal Power Station Muzaffargarh, Natural Gas Power Station Multan: Gas Turbine Power Station Faisalabad and Steam Power Station Faisalabad.

1.2. NPGCL was granted a Generation License No. GL/03/2002 on 1st July 2002 by National Electric Power Regulatory Authority. The Authority vide Modification-II to the generation license dated October 31, 2014 included Combined Cycle Power Plant (CCPP), Nandipur in the generation license located at Gujranwala in the Province of Punjab. The plant comprises of 3 gas turbines (9E Frame) of 122.1 MW each and 1 steam turbine of 199.35 MW.

1.3. The tariff in respect of CCPP Nandipur was determined on 14.04.2015 for 30 years. Review Motion in the matter was decided on 27.01.2016 and decision of reconsideration request filed by GOP was issued on 02.09.2016. The reference tariff was determined on net capacities of 411.351 MW and 450.478 MW and net efficiencies of 45% and 49% on RFO and gas fuels respectively.

1.4. The plant achieved commercial operations (COD) on 23-07-2015 on RFO fuel. The plant was converted to gas and has been operating on gas/RLNG since 06-10-2017. Performance tests on gas/RLNG were conducted on 08.04.2019 and established net dependable capacity of 500.49 MW and net thermal efficiency of 49.053%.

2. FILING OF MODIFICATION PETITION

2.1. Northern Power Generation Company Limited (NPGCL) vide letter No. NPGCL/CEO/TRF-271/4088 dated 16th October 2020 filed Petition for Modification/Revision of reference tariff of CCPP Nandipur in pursuant to Section 17(3) of NEPRA Standards and Procedure Rules 1998. Salient features of the petition are as under:

i. The petitioner has requested following tariff w.e.f. COD of 23rd July 2015:

Tariff Component	Reference	Requested
	Rs/kW/hr	
On RFO:		
Capacity Purchase Price (1-15 Years)	2.3930	2.9271
Capacity Purchase Price (16-30 Years)	1.2840	1.2612
Fuel Cost Component	7.5246	7.6126
Variable O&M	0.4800	0.4800
Total (1-15 Years)	**10.3976**	**11.0197**
Total (16-30 Years)	**9.2886**	**9.3538**

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On Gas/RLNG:		
Capacity Purchase Price (1-15 Years)	2.1906	2.7151
Capacity Purchase Price (16-30 Years)	1.1274	1.1938
Fuel Cost Component	7.3803	7.4423
Variable O&M	0.3435	0.3435
Total (1-15 Years)	**9.9144**	**10.5009**
Total (16-30 Years)	**8.8512**	**8.9796**
RoE Component:	**@ 15%**	**@ 10%**
CPP – ROE on RFO	1.0915	0.7277
CPP- ROE on Gas/RLNG	1.0283	0.6856

ii. The details of requested capacity charges are as under:

	RFO	GAS
Dependable Capacity (MW)	411.35	450.48
NEO at 100% Capacity (GWh)	3,603.40	3,946.20
Capacity Charges:	Rs/kW/hr	
Fixed O&M – Foreign	0.2120	0.1936
Fixed O&M – Local	0.0783	0.0715
Cost of working capital	0.1213	0.1319
cost of Insurance	0.1219	0.1113
Debt Servicing	1.6659	1.5212
Return on Equity	0.7277	0.6856
Capacity Purchase Price (1-15 Years)	**2.9271**	**2.7151**
Capacity Purchase Price (16-30 Years)	**1.2612**	**1.1938**

iii. To allow gas connection infrastructure cost of Rs. 2,808.7 million.

iv. To allow cost of plant conversion on Gas of Rs. 5,427.6 million against assessed amount of Rs. 2,089.9 million.

v. To allow spare parts cost of Rs. 1,798.6 million against assessed amount of Rs. 1,436.9 million.

vi. To allow duties & taxes of Rs. 2,365.3 million against assessed amount of Rs. 2,009.9 million

vii. To allow fuel testing cost of Rs. 3,938.3 million against assessed amount of Rs. 812.7 million.

viii. To allow power dispersal cost of Rs. 832.3 million duly verified by NTDC.

ix. To allow non- EPC cost for buildings of Rs. 657.9 million against assessed amount of Rs. 363.8 million.

x. To allow O&M Contractor mobilization cost of Rs. 649.2 million against assessed amount of Rs. 515.0 million.

xi. To allow actual EPC cost payable of Rs. 2,547.94 million against assessed cost of Rs. 2,203.47 million.

xii. To allow project resumption cost of PKR 4,531.08 million in EPC cost.

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xiii. To allow 3% premium on KIBOR without sharing the saving with the power purchaser/consumers.

xiv. To allow one-time adjustment in Heat Rate for efficiency loss adjusting factors, degradation, partial loading and start-up charges

xv. To allow increase of 7 Paisa per unit in Fixed O&M charge.

xvi. To allow increase of 9 Paisa per unit in cost of working capital on gas.

xvii. To allow reduction in Return on Equity Charge from 15% to 10%.

3. ADMISSION OF MODIFICATION PETITION

3.1. The Authority admitted the Petition on 11th November 2020. Notice of Admission was made public in the newspapers on 4th December 2020 inviting comments/interventions from stakeholders. Individual notices were also sent to relevant stakeholder on same day. In response to the notice of admission, no comments were received from any stakeholder.

4. ISSUES FRAMMED

4.1. On the basis of contents of the Petition, following issues were framed for the hearing:

i. Whether to allow Rs. 2,808.7 million of gas connection infrastructure cost?

ii. Whether to allow cost of plant conversion on Gas of Rs. 5,427.6 million against assessed amount of Rs. 2,089.9 million?

iii. Whether to allow spare parts cost of Rs. 1,798.6 million against assessed amount of Rs. 1,436.9 million?

iv. Whether to allow duties & taxes of Rs. 2,365.3 million against assessed amount of Rs. 2,009.9 million?

v. Whether to allow fuel testing cost of Rs. 3,938.3 million against assessed amount of Rs. 812.7 million?

vi. Whether to allow power dispersal cost of Rs. 832.3 million?

vii. Whether to allow non- EPC cost for buildings of Rs. 657.9 million against assessed amount of Rs. 363.8 million?

viii. Whether to allow O&M Contractor mobilization cost of Rs. 649.2 million against assessed amount of Rs. 515.0 million?

ix. Whether to allow actual EPC cost payables of Rs. 2,547.94 million against assessed cost of Rs. 2,203.47 million?

x. Whether to allow project resumption cost of PKR 4,531.08 million in EPC cost?

xi. Whether to allow 3% premium on KIBOR without sharing the saving with the power purchaser/consumers?

xii. Whether to allow one-time adjustment in Heat Rate for efficiency loss adjusting factors?

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xiii. Whether to allow increase of 7 Paisa per unit in Fixed O&M charge?

xiv. Whether to allow increase of 9 Paisa per unit in cost of working capital on gas?

xv. Whether to allow reduction in Return on Equity Charge from 15% to 10%?

5. INTERIM TARIFF

5.1. NPGCL vide letter No. CEO/MZG/1730(7) dated 8th December 2020 requested interim relief in reference tariff component of ROE in compliance of CCoE decision for reduction in ROE as per Rule 4(7) of NEPRA (Tariff Standards and Procedure) rules, 1998, i.e. reproduced as under:

> *"The Authority may, while admitting a petition, allow the immediate application of the proposed tariff subject to an order for refund for the protection of consumers, or for the satisfactory security to be provided for refund, while the proceedings as pending before the Authority"*

5.2. The Petitioner requested following revision in ROE component:

Ref. Tariff annual NEO on Gas	(GWh)	3,946.18
Reference Tariff Return on Equity-Gas	(Rs./kW/h)	0.7760
Annual ROE Charge	(Mln.Rs)	3,062.24
Rate of ROE	%	15%
Ref. Equity Investment (Equity=ROEDC)	(Mln.Rs)	20,414.90
Revised rate of ROE	%	10%
Revised annual ROE Charge	(Mln.Rs)	2,041.49
Revised Reference Tariff ROE-Gas	(Rs./kW/h)	0.5173

5.3. The Authority considered the request of Interim Tariff and decision in the matter was issued on 12-01-2021. The Authority approved ROE component of Rs. 0.3818/kW/hour on provisional basis which shall be subject to adjustment/refund, in the light of final decision of the Authority in the subject tariff modification petition.

6. HEARING

6.1. Hearing in the subject matter was held on 14th January 2021 through video link on Zoom. Notice of hearing was made public on 31st December 2020. Individual notices were also sent to various stakeholders on 1st January 2021. The hearing was participated by representatives from the Petitioner, Central Power Purchasing Agency (CPPA-G) and Punjab Power Development Board (PPDB.)

6.2. Energy Department, Government of Punjab vide its letter No. SO (T&P) ED/21-46/2020 dated 3rd February 2021 submitted report/comments of PPDB. Report is actually a summarized form of proceedings of the hearing with no specific comments from PPDB.

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7. CONSIDERATION OF THE SUBMISSIONS OF THE PETITIONER, ANALYSIS AND DECISION ON IMPORTANT ISSUES

7.1. The issue wise discussion, analysis and decisions on important issues are provided in the succeeding paragraphs.

8. Whether to allow Rs. 2,808.7 million of gas connection infrastructure cost?

8.1. According to the Petitioner, the Authority vide Para 16 of the Decision dated 02.09.2016 decided that Nandipur power plant shall also be given the prudent cost related to gas infrastructure at the time of COD in line with RLNG power plants. NPGCL was required to submit verifiable documentary evidence of actual cost incurred on gas pipeline, duly verified by SNGPL. According to the Petitioner, SNGPL has provided Statement of Cost incurred from 1st July 2016 to 30th June 2019 in respect of laying of 24" Dia × 85KM transmission line of PKR 2,808.7 million for gas connection infrastructure duly verified by auditors. The summary of the cost is as under:

	Detail of actual verified expenses by SNGPL	PKR
1	Material Cost	1,458,437,000
2	Crops Compensation etc.	141,304,000
3	Construction Cost	635,163,000
4	Land Cost	16,860,000
5	Metering Station Cost	193,724,000
6	Auditor Remuneration	1,200,000
7	Right of Way	362,000,000
	Total	**2,808,688,000**

8.2. In view of the above, the petitioner requested to modify the reference tariff by allowing PKR 2,808.688 million for gas connection infrastructure cost.

8.3. The submissions of the Petitioner have been examined. In support of its request the Petitioner provided further details through Appendix-9 submitted vide letter NPGCL/CEO/TRF-542/5939 dated 29th January 2021 which include work order for laying of pipeline 24" Dia x 88kms and 1 gas metering station, two invoices of Rs. 4,750 million, bank statements for net of tax payment of Rs. 4,417.5 million and Auditor's Report on the Statement of Cost incurred for the subject gas pipeline project. In the opinion of the Auditor *"the financial information in the statement of the company for the period from 1st July 2016, 30th June 2019 is prepared, in all material respects, in accordance with basis of preparation as disclosed in Note 2 to the Statement."* The statement of cost also provides balance amount of Rs. 1,608.812 million refundable to NPGCL.

8.4. Keeping in view the documentary evidence provided by the Petitioner, SNGPL Statement of Cost Incurred and Auditor's Report, the Authority has decided to approve gas connection infrastructure cost of Rs. 2,808. 688 million which shall be included in the project cost at COD tariff stage as directed in decision dated 2-9-2016.

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9. Whether to allow cost of plant conversion on Gas of Rs. 5,427.6 million against assessed amount of Rs. 2,089.9 million?

9.1. The Petitioner referred the paragraph 49 of the determination dated 27-01-2016 which is produced hereunder:

> *"The gas conversion cost of USD 20.29 million, which is based on estimate offered by GE worth USD 15.42 million and USD 4.87 million offered by Dongfang Electric Corporation Limited, China (DECL) is, considered legitimate cost. The Authority has therefore decided to allow the same as maximum ceiling subject to adjustment at the time of COD on the provision of documentary evidence"*

9.2. According to the petitioner NEPRA has assessed maximum ceiling of USD 20.29 million based upon estimates given by GE and DECL. NPGCL has executed works of conversion of plant on gas through competitive bidding and the actual cost exceeds the maximum ceiling amount and requires revision. The Petitioner further submitted that for supply of required gas pressure to CCPP Nandipur, it was found necessitated to install a gas booster and acquire it from sister company (Central Power Generation Company (Genco-II) which was spare at that time, at book value to save the purchase processing time.

9.3. NPGCL invited Bids from the reputed and experienced Contractors for Engineering, Procurement, Construction and Commissioning of Gas Conversion Works/Services at CCPP Nandipur. The scope comprised of the installation of relocated and retrofitted gas compressors from Guddu Power Plant, all the related work for gas conversion (except modification in GTs and supply of fuel gas conditioning skids) and Performance Testing of Power Plant in Combined Cycle Mode.

9.4. According to the Petitioner, sealed bids were invited through Competitive Bidding by an advertisement published in English National Newspapers of wide publication on 17-09-2016 as well as on PPRA website http//www.ppra.org.pk. According to the Petitioner, Bids were opened on October 14, 2016 and following two bidders participated:

i. Dongfang Electric Corporation Limited, China (DECL)
ii. Amcorp-Gasco Joint Venture, Pakistan

9.5. DECL read out price was USD 15,311,157 (PKR 1,598,484,790.80) whereas AGJV read out price was PKR 1,782,000,000. DECL was not declared successful bidder due to following reason:

i. Bid security was not submitted along with the Bid.
ii. Project completion time of DECL was 24 months as compared to desired minimum 06 months offered by M/S AGJV.

9.6. The petitioner submitted that as per details along with documentary evidences, as against the assessed amounts, actual payments of Rs. 4,963.674 million for gas conversion have been made. NEPRA is therefore requested to allow actual cost of Rs. 4,963 674 million and duties

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& taxes of Rs. 463,903,644 million on account of conversion of plant on gas and modify the Reference Tariff accordingly.

9.7. The submissions of the Petitioner have been examined. Against the approved and caped amount of gas conversion cost of Rs. 2,090 million (US$ 20.29 million), the Petitioner requested Rs. 5,427 million comprising following:

Description	Amount	Amount	Bank Charges	Total
	US$	Rs.	Rs.	Rs.
GE Scope of work for supplies	12,953,723.53	1,371,196,920	109,322,502	1,480,519,422
GE scope of work for services	2,464,558.90	271,298,644	-	271,298,644
AMCORP-GASCO JV scope of work	-	1,969,804,980	-	1,969,804,980
Book Value of Gas Booster CPGCL	-	1,242,051,646	-	1,242,051,646
Sub-Total	**15,418,282.43**	**4,854,352,190**	**109,322,502**	**4,963,674,692**
Custom Duty on import	-	-	-	134,960,783
Income Tax on import	-	-	-	96,257,084
Sales Tax on import	-	-	-	232,442,608
Other				243,169
Sub-Total	-	-	-	**463,903,644**
Total	**15,418,282.43**	**4,854,352,190**	**109,322,502**	**5,427,578,336**

9.8. The Petitioner has provided documentary evidence in support of payment made to GE and AMCORP-GASCO joint venture (JV). The cost of GE scope of work in terms of dollars is same as approved by the Authority in its decision dated 27-1-2016, therefore the same has been considered according to the actual payment of Rs. 1,644.734 million including bank charges. The amount of Rs. 109.322 million on account of bank charges is incorrect. The correct amount of bank charges is Rs. 2.238 million which is included in the total payment. Custom duty, income tax, sales tax and others of Rs. 463.903 million on account of GE supplies is in addition to the GE scope of cost. Admissible custom duties and taxes may be claimed under taxes and duties at the time of COD tariff adjustment stage.

9.9. The other portion of the approved gas conversion cost of US$ 4.87 million (Rs. 501.61 million) is far less than the actual cost claimed which comprises JV scope of work and gas booster cost combined together of Rs. 3,212 million. The cost of JV scope of work comprises contract price of Rs. 1,782 million and Punjab Sales Tax (PST) of Rs. 187.86 million. Out of the contract price of Rs. 1,782 million, 10% retention money is payable as on the date of filing of tariff petition. The Petitioner has settled LDs of Rs. 13.365 million against Rs. 33.083 million initially imposed. Accordingly, the net contract price works out Rs. 1,768.635 million (Rs. 1,782 million minus Rs. 13.365 million LDs) against the balance caped amount of Rs. 501.61 million.

9.10. The Authority has considered the submissions of the Petitioner and documentary evidence pertaining to the JV scope of conversion work. The Authority is of the opinion that the initial

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cost of Rs. 2,090 million for gas conversion work was approved on the basis of submission/request of the Petitioner which was subject to adjustment as per actual only if it is less than the cap amount. The Petitioner did not seek approval of the revised cost before execution. Therefore, there is no justification to review the approved cost beyond the caped amount except for any exchange rate variation in GE scope of cost. Accordingly, the Authority has decided to maintain the existing gas conversion cost of US$ 20.29 million equivalent to Rs. 2,146.344 million on the basis of actual paid GE scope of cost of Rs. 1,644.734 million and balance caped amount of Rs. 501.61 million.

9.11. The third item of gas conversion cost pertains to the cost of gas booster of Rs. 1,242 million. The gas booster compressor was transferred from GENCO-II (CPGCL). GENCO-II received the same from Engro Fertilizer free of cost in consideration of utilization of 60 MMCFD gas quota from 15.5.2015 to 31.3.2016. The fair value of the subject gas booster compressors was estimated on the basis of cost of compressors from M/s Jerrah from which CPGCL is procuring for its 747 MW plant. Fair value was estimated as 1,470 million which was reduced further by 10% and after charging depreciation of Rs. 46.308 million, the book value of Rs. 1,276.782 million was agreed and approved by BODs of both companies. Since the transfer occurred in April 2017, the book value was further reduced by 9 months depreciation of Rs. 34.731 million and a credit note amounting to Rs. 1242.052 million was issued by NPGCL in favour of CPGCL to settle the price of gas booster compressors.

9.12. While determining tariff of 747 MW Guddu power plant, the Authority allowed gas booster compressor station cost of Rs. 1.465 billion. CPGCL did not inform during the proceedings of the determination of tariff about the acquisition of free of cost gas booster station from Engro Fertilizer and its transfer to GENCO-III in consideration of Rs. 1.242 billion. Had it been informed at that time, the cost of CPGCL's booster station would have been reduced by the equivalent amount. Since the adjustment was not made at that time, it would be necessary to make appropriate adjustment. The Authority has decided to treat the transfer of gas booster station at zero rate. NPGCL is directed to cancel the credit note in favour of CPGCL for gas booster or issue a debit note for equivalent amount in pursuance of the directions of the Authority.

10. Whether to allow spare parts cost of Rs. 1,798.6 million against assessed amount of Rs. 1,436.9 million?

10.1. The Petitioner referred Para 42 and Para 43 of the determination dated 27-01-2016 and submitted that NEPRA has assessed spare cost for 2 sets of GTG, whereas CCPP Nandipur comprised of 3 GTG, hence, NPGGL purchased spare parts for 3rd GTG subsequent to determination of Reference Tariff. As per details along with documentary evidences enclosed to this Modification Petition, as against the assessed payable amounts, actual payments of Rs. 1,798.6 million for spare parts have been made. NEPRA is therefore requested to modify reference tariff taking into account actual cost of Rs. 1,798.605 million for purchase of necessary spare parts. The Petitioner provided following details of the requested cost:

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Description	US$	Rs.
P.O.No. CE/PD/NP/EM/PO/5854-61 dated 176-2014 (ISP-01)	4,292,790.24	440,253,871.52
P.O.No. CE/PD/NP/EM/PO-CI&HGPI/4950-61 Dated 26.05.2015 (ISP-02)	3,937,039.25	418,272,626.69
P.O No. CE/PD/NP/EM/PO/CI&HGPI/Set-3/1529-39 Dated 04.12.2015 (ISP-03)	3,636,443.07	385,818,408.15
PO No. CE/PD/NP/EM/PO-BOP/5723-33 dated 19.06.215 (BOP)	5,286,346.19	554,260,299.18
Total	17,152,618.75	1,798,605,205.54

10.2. The submissions of the Petitioner have been examined along with previous decisions. The following spare parts cost was allowed to the subject power plant:

Description	US$ Million	Rs. Million
1st GTG	4,726,899	534,244,089
2nd GTG	3,917,843	403,537,829
BOP Spares	5,302,954	546,204,215
Total	13,947,695	1,483,986,132

10.3. As evident above, the spare parts for 3rd GT were neither requested nor considered in the previous determinations. The Petitioner in the instant petition provided documentary evidence in the form of purchase orders, commercial invoices and debit advices to bank for payment. The increase in the approved and actual spare parts cost is Rs. 314,619,074/- which mainly attributed to purchase of spare parts for 3rd GTG, exchange rate variation and reduction in cost of spares for 1st GTG. Maintaining spares inventory for each GTG is necessary for smooth operation of the power plant. In line with the spare parts allowed for 1st and 2nd GTG, the Authority has decided to allow revised cost of spars inventory of Rs. 1,798.605 million in the instant case.

11. Whether to allow duties & taxes of Rs. 2,365.3 million against assessed amount of Rs. 2,009.9 million?

11.1. The Petitioner referred Para 49 and Para 50 of the determination dated 14-04-2015 wherein the Authority allowed an amount of Rs. 1988.45 million on account of taxes and duties out of which Rs. 1609.561 million were verified and Rs. 378.89 million were estimated subject to adjustment on actual at the time of COD.

11.2. According to the Petitioner NEPRA has assessed duties & taxes based upon two GTG sets and NPGCL has purchased necessary spare parts for 3rd GTG set subsequently. Actual expenses of duties & taxes thus exceed the assessed amount which need revision of reference tariff. The Petitioner provided following summary of the duties and taxes:

Nature of Imports	Rs.
Power Plant Equipment	1,729,251,128
Spare Part 1st GTG (ISP-1)	123,265,774
Spare Part 2nd GTG (ISP-2)	131,797,661
Spare Part 2rd GTG (ISP-3)	119,097,236
Spare Parts BOP	261,904,422
Total Expenses	2,365,316,221

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11.3. The petitioner requested to allow actual expenses of Rs. 2,365.316 million for Taxes & duties and modify the reference tariff accordingly.

11.4. The submissions of the Petitioner have been examined. Actual taxes and duties of non-refundable/ non-adjustable nature on import of equipment have been allowed as admissible cost in all power plants including the instant one. The adjustment mechanism is already in place as explained above and under that mechanism, the actual duties & taxes shall be considered at the time of COD tariff adjustment on the basis of verifiable documentary evidence.

12. Whether to allow fuel testing cost of Rs. 3,938.3 million against assessed amount of Rs. 812.7 million?

12.1. The Petitioner referred Para 39 of the determination dated 14-04-2015 wherein fuel cost during testing of Rs. 812 million was approved subject to price adjustment at the time of COD against HSFO price of Rs. 38265/ton and HSD price of Rs. 64.51/liter against the requested cost of Rs. 1,408 million. The Petitioner further submitted that as against the assessed payable amounts, actual fuel cost of Rs. 3,938.291 million for fuel for testing have been incurred. On the basis of detail and documentary evidence provided along with the modification petition, the Petitioner requested to allow actual fuel testing cost of Rs. 3,938.291 million and modify the Reference Tariff accordingly. The Petitioner provided following summary of the fuel cost during testing:

Testing Activity	HSFO Cost	HSD Cost	Total in PKR
1. Total fuel consumed in 14 days reliability test run	2,793,783,584	27,804	2,793,811,388
2. Total fuel consumed on 05 days initial operation	897,680,570	245,973	897,926,543
3. Total fuel consumed on 01 day trial run	246,467,336	85,689	246,553,025
Total	**3,937,931,490**	**359,466**	**3,938,290,956**

12.2. The submissions of the Petitioner have been evaluated. The Petitioner did not provide the details of units generated against the above mentioned operation of the plant. The Petitioner under Section 13 of the Petition requested for approval of power sale rate for pre-COD sale of energy, part of which pertains to above mentioned testing, trial run and initial operation. The request to allow cost of pre-COD sale of energy both under fuel testing and pre-CoD sale is duplication of cost. The issue of pre-CoD sale has been deliberated separately and the Petitioner has been directed to submit separate request for approval of fuel cost component for each period/month of the pre-COD sale so that the same may be claimed from CPPA in accordance with the established practice. Therefore, the Authority has decided to maintain its earlier decision.

13. Whether to allow power dispersal cost of Rs. 832.3 million?

13.1. According to the Petitioner, NPGCL in its petition of 20.05.2014 has claimed power dispersal cost of Rs. 762 million covering the funds given by NPGCL to NTDC for evacuation of power from Nandipur power plant at that time. NEPRA has excluded this amount with the contention that power evacuation is the responsibility of power purchaser and its cost should ideally be reflected in the NTDC investment plan.

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13.2. The Petitioner submitted that in connection with project development activities, NPGCL took-up the matter with-NTDC to construct transmission line for evacuation of power from CCPP Nandipur. NTDC responded that due to financing constraints, they will construct the transmission line on deposit work basis on providing funds by NPGCL. Accordingly, NPGCL provided funds to NTDC as per work estimates for this purpose. On completion of the task, NTDC has provided adjustment account on the basis of actual expenses with the understanding that NPGCL should make request to NEPRA to include power dispersal cost in its tariff. The current Power Generation Policy of the GOP allows this arrangement as well.

13.3. NTDC has provided details of actual expenses of PKR 832.271 million for power dispersal cost. The summary picture of said cost has been shown in the table below:

Sr.#	Detail of Actual verified CAPEX by NTDC	PKR
1	Material Cost	436,525,735
2	Civil Works	224,006,994
3	Departmental Charges	171,738,510
	Total	832,271,239

13.4. The Petitioner in support provided NTDC letter dated 04-5-2016 which provides adjustment account for interconnection arrangement for dispersal of power. In view thereof, the petitioner requested to modify the reference tariff by allowing Rs. 832.271 million for power dispersal cost duly verified by NTDC.

13.5. CPPA represented during the hearing of the original petition pointed out that the transmission cost should be deducted from the project cost as per the industry's standard.

13.6. The submissions of the Petitioner have been evaluated. The responsibility of the interconnection/power dispersal is the responsibility of NTDC. The Petitioner could not provide any communication/correspondence asking NTDC to make necessary interconnection arrangements for dispersal of power as a part of its responsibility or a refusal from NTDC to build the interconnection arrangements from its own sources. Moreover, as informed by the representative of the Petitioner, the assets have been taken over by NTDC and the ownership, control and its maintenance is being done by NTDC. The requested interconnection/power dispersal cost at the time of first tariff determination was disallowed being NTDC's responsibility. The Authority has decided to maintain its earlier decision in the matter with the direction to NTDC to reimburse the interconnection/power dispersal cost to NPGCL and claim the same in its tariff petition. NTDC is further directed to agree a repayment schedule with NPGCL and inform the Authority accordingly. NPGCL is directed to approach NTDC for reimbursement of the power dispersal cost in the light of Authority's decision and in case NTDC refuses, the matter may immediately be brought before the Authority for curative action.

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14. Whether to allow non- EPC cost for buildings of Rs. 657.9 million against assessed amount of Rs. 363.8 million?

14.1. The Petitioner referred para 38 of the determination dated 14-04-2015 and submitted that at the time of filing tariff petition in 2014 certain works of land preparation and buildings were under construction, hence based upon estimated costs. NPGCL claimed cost of Rs. 487.47 million on this account. Now all such works have been completed at a cost of Rs. 487.815 million and works of Rs. 170.1 million are in progress. All the works are related to project and cost has prudently incurred, summary picture of which has been shown in table below:

Sr.	Nature of work	Million PKR
1	Residential Buildings & Civil works	285,900,578
2	Non- Residential Buildings & Civil works	201,914,069
3	Additional Plan Civil work (estimated)	170,064,258
	Total	**657,878,905**

14.2. As per documentary evidences of aforesaid mentioned expenses, the Petitioner requested NEPRA to allow revised construction costs of buildings of Rs. 657.915 million and modify the reference tariff.

14.3. The submissions of the Petitioner have been evaluated. Regarding completed works, as provided in the referred Para 38 of the decision dated 14-04-2015, Rs. 363.835 million were allowed on account of non-EPC buildings against the requested cost of Rs. 487.47 million. Some items such as cost of inauguration ceremony, establishment of view point, development of children park etc. were not considered being not directly related to the power plant while some costs were not considered being deficient of proper documentary evidence. It was further provided in the decision that the cost for internal access road, dispensary etc., though a genuine requirement, was not backed by any supporting documents, therefore, these costs were disregarded with the view that it will be allowed on the basis of documentary evidence at the time of COD.

14.4. Cost pertaining to inaugural ceremony, view point and development of Children Park was not allowed in the original petition, therefore, the same has not been considered. It is further noted and later confirmed by the Petitioner that cost of Rs. 972,902 on account of development of view point (item No. 42) is duplication of item No. 5. Furthermore, the payment of Rs. 2,716,515/- to M/s National Insurance Company do not pertain to civil works and has not been considered. Therefore the requested cost for completed works reduces to Rs. 484.126 million instead of Rs. 487.815 million. After making appropriate adjustment in cost pertaining to inaugural ceremony, view point and Children Park etc, the remaining cost shall be considered at the time of COD tariff adjustment stage subject to verification.

14.5. Cost of additional civil work of Rs. 170 million is based on estimation. Actual work is not in progress, however, design and cost estimation, has been completed. The details of additional civil works cost include the following:

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Description	Rs. Mlns
Development of Hostel Surroundings	13.80
Dispensary	7.00
Additional Chemical stock yard	17.00
Canteen rest area for trench/tankers drivers	7.00
Steel bridge	2.80
Bridge on Upper Chenab Canal	122.46
Total	**170.06**

14.6. As per revised PC-I dated January 2013, dispensary and colony to power plant bridge is included in non-Residential Buildings under Para 7.4.8 with cost estimate of Rs. 10 million and Rs. 120 million respectively. The Authority has decided to allow the proposed cost of Rs. 170.06 million as maximum cap for planned civil works and the same shall be included in the project cost at the time of COD tariff adjustment stage subject verification of actual expenditure.

Whether to allow O&M Contractor mobilization cost of Rs. 649.2 million against assessed amount of Rs. 515.0 million?

14.7. The Petitioner referred para 54 and 55 of the determination dated 14-04-2015 and submitted that as against the assessed payable amounts, actual payments of Rs. 649.196 million have been made, including USD 4.5 million and other related expenses for O&M mobilization. The Petitioner requested to modify the reference tariff by taking into account actual O&M contractor mobilization cost.

14.8. The Authority in its decision dated 14-4-2015 has allowed US$ 5 million on account of O&M mobilization cost subject to adjustment on provision of documentary evidence at the time of COD. As per the O&M Agreement, the mobilization advance is US$ 4.5 million. The Petitioner provided following detail of mobilization advance:

Description	US$ Mln	Rs.
Mobilization advance	4.50	470.05
Punjab Sales Tax 16% (PST)	-	75.21
NESPAK consultancy charges	-	103.94
Total	**4.50**	**649.20**

14.9. The above cost include PST of Rs. 75.21 million which is adjustable in nature. The same has not been considered as part of capital cost. In case the sales tax is non-adjustable, the Petitioner may claim the same at the time of COD tariff adjustment under taxes and duties.

14.10. The Petitioner requested Rs. 173.231 million on account of consultancy charges of NESPAK for additional work. The additional cost was allocated 60% to mobilization cost on account of preparation of tendering documents and evaluation of bids for O&M contract and 40% to

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EPC cost payable for verification of claims by NEPAK. The subject cost do not pertain to mobilization, therefore, the same has not been considered under this head. The subject cost pertain to non-EPC cost and has been deliberated as additional item to already allowed engineering and consultancy cost of Rs. 406.37 million in the tariff.

14.11. Accordingly, the Authority has decided to approve actual mobilization cost of Rs. 470.05 million against assessed cost of Rs. 515 million. The adjustment mechanism is already in place and the adjustment in the project cost shall be made at the time of COD tariff adjustment.

15. Whether to allow actual EPC cost payables of Rs. 2,547.94 million against assessed cost of Rs. 2,203.47 million?

15.1. The Petitioner referring Para 61-63 of the determination dated 27-01-2016 submitted that the actual EPC cost after making the pending payments exceeds the assessed EPC amount. The Petitioner submitted the following comparison of assessed EPC and actual EPC cost:

Particulars	Assessed EPC Cost		Paid/ Verified		Adjustable Exp in Mln	
	Mln. USD	Mln. PKR	Mln. USD	Mln. PKR	Mln. USD	Mln. PKR
USD	164.92	15,083.82	151.52	13,683.89	13.40	1,379.93
Euro	109.22	9,071.92	108.73	9,021.15	0.49	50.77
PKR	36.86	3,249.21	29.36	2,476.44	7.50	772.77
Total EPC	311.00	27,384.95	289.61	25,181.48	21.39	2,203.47

Particulars	Revised EPC Cost		Paid/ Verified		Actual adjustable Exp in Mln	
	Mln. USD	Mln. PKR	Mln. USD	Mln. PKR	Mln. USD	Mln. PKR
USD	164.46	15,033.46	151.52	13,683.89	12.94	1,349.57
Euro	109.22	9,066.84	108.73	9,021.15	0.49	45.69
PKR	40.55	3,629.13	29.36	2,476.44	11.19	1,152.69
Total EPC	314.23	27,729.42	289.61	25,181.48	24.63	2,547.94

15.2. According to the Petitioner, as per details along with documentary evidences enclosed to this application, as against the assessed payable amounts for USD, Euro and PKR currencies of EPC Contract, actual payments equivalent to Rs. 2,547.94 million have been made. NEPRA is therefore, requested to allow revision of Reference Tariff for actual cost against assessed EPC payable cost.

15.3. The submissions of the Petitioner have been evaluated. Para 61 of the referred decision specifies assessed EPC cost of US$ 315.94 million while Petitioner in its submissions mentioned the assessed EPC cost as US$ 311 million which has been rechecked and found incorrect. Out of the assessed EPC cost, equivalent of US$ 21.39 million (Rs. 2,203.47 million) were payable. Out of the payable amount Rs. 1,379.93 million (dollar portion) and Rs. 50.77 million (Euro portion) were subject to exchange rate variation in respective currencies and the remaining amount of Rs. 772.77 million (rupee portion) was not adjustable. The payable portion of the EPC cost was approved and included in the project cost for calculation of tariff subject to exchange rate variation of the respective currencies for which mechanism was provided in referred Para 61.

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15.4. As per the tariff Model following EPC cost was assessed in equivalent dollars and Rupees:

Currency	Assessed		Paid		Payable	
	$ Mln	Rs. Mln	$ Mln	Rs. Mln	$ Mln	Rs. Mln
USD	164.91	15,063.83	151.52	13683.89	13.40	1,379.93
Euro	109.22	9,075.06	108.73	9024.29	0.49	50.77
PKR	36.86	3,249.20	29.36	2476.44	7.50	772.77
PKR escalation	4.95	422.47	4.95	422.47	-	-
Sub total	**315.94**	**27,810.56**	**294.56**	**25,607.09**	**21.39**	**2,203.47**

15.5. The matter was discussed and the Petitioner informed that the escalation amount of US$ 4.95 million were not included in the above comparison and were requested separately under Para 7.8 of the Petition. The Petitioner was asked to consolidate the comparison and resubmit the same for appropriate comparison. The Petitioner vide email dated 24th June 2021 submitted the following revised comparison for consideration of the Authority:

Particulars	Assessed (27.01.2016)		Revised EPC Cost		Changes	
	USD Mln	Mln.Rs.	USD Mln	Mln.Rs.	USD Mln	Mln.Rs.
EPC currencies						
USD	164.92	15,063.82	164.46	15,033.46	(0.46)	(30.36)
Euro	109.22	9,075.06	109.22	9,069.98	0.00	(5.08)
PKR	36.86	3,249.21	40.55	3,629.13	3.69	379.92
PKR Escl./ indexation	4.95	422.47	4.95	422.47	-	-
Sub total	**315.95**	**27,810.56**	**319.18**	**28,155.03**	**3.23**	**344.47**

Particulars	Payable Expense		Actual Expenses		EPC Cost Incr/(Decr	
	USD Mln	Mln.Rs.	USD Mln	Mln.Rs.	USD Mln	Mln.Rs.
EPC currencies						
USD	13.40	1,379.93	12.94	1,349.57	(0.46)	(30.36)
Euro	0.49	50.77	0.49	45.69	-	(5.08)
PKR	7.50	772.77	11.19	1,152.69	3.69	379.92
PKR Escl./ indexation	-	-	-	-	-	-
Sub total	**21.39**	**2,203.47**	**24.63**	**2,547.94**	**3.23**	**344.47**

15.6. Against the assessed cost of Rs. 27,810.56 million, the Petitioner requested actual EPC cost of Rs. 28,155.03 million. Out of the three currencies, only dollar and Euro portions of cost were adjustable which have decreased by Rs. 35.44 million. The Petitioner has requested for actual expenses of Rs. 1,152.69 million of PKR portion against the payable amount of Rs. 772.77 million, thereby an increase of Rs. 379.92 million. The Petitioner in support provided details of documents of actual payment. The detail of the requested increase in PKR portion is provided hereunder:

Description	Rs.
Monthly Invoices/Statements Nos. 40 to 60	325,210,735
Retention Money	344,768,099
Price Adjustments Nos. 16 to 20	186,766,040

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Invoice of Compensation on Delayed Payment	742,202
Ambulance Invoice	9,495,486
Electric Main Gate	14,554,674
Withholding Tax (WHT)	201,859,291
Claim verification consultancy charges	69,292,258
TOTAL	**1,152,688,785**

15.7. Against the PKR payable amount of 772.77 million, the Petitioner could only provide evidence to the extent of Rs. 705,944,798 million comprising monthly invoices Nos. 40-60, retention money and WHT on monthly invoices No.s. 40-60 of Rs. 35,965,964/-. Accordingly, Rs. 705.945 million have been considered against Rs. 772.77 million under the PKR portion.

15.8. Price adjustments Nos. 16 to 20 pertains to price escalation clause 47.1 of EPC Contract on account of escalation of Labour, Material and Transport and pertain to the period from 1st December 2013 to 30th September 2015. Under Para 30 of the decision dated 14-4-2015, payable amount on account of price escalation was disallowed while realizing that there may be price escalation payable to the contractor in future and that the authority has therefore, decided to allow prudently incurred escalation (if any) at the time of COD upon submission of authentic documentary evidence. The Petitioner has provided invoices and bank statements for payment of Rs. 186,766,040/- on account of price escalation. Further, as per the contract, the income tax (including advance income/WHT) on both local and foreign currency portions is not included in DECL's Schedule of price, which shall be paid by the Employer. Out of total WHT, Rs. 14,057,659/- pertain to price escalation. The Petitioner has provided documentary evidence in support of WHT payment. Accordingly, total price escalation of Rs. 200.824 million is legitimate and have been considered and approved to be included in the project cost at the time of COD.

15.9. The examination of the documents revealed that out of total WHT, Rs. 151,835,668 million pertains to remobilization cost and inspection & repacking (project resumption cost) which was disallowed by the Authority in the original petition, review and reconsideration request. There is no justification to allow WHT on disallowed cost and the same has not been considered.

15.10. The Petitioner informed that cost of ambulance and electric main gate was included in the scope of EPC contract in dollar portion. Later it was decided to pay 80% of the subject costs in PKR and accordingly the same were paid. The Petitioner provided approved invoices, bank statement and covering letter. Accordingly the total cost of R. 24.05 million has been included in the paid dollar portion.

15.11. As discussed under mobilization cost, claim verification charges of NESPAK has been considered under engineering and consultancy charges. The invoice of compensation on delayed payment was also not considered as the Authority has disallowed similar cost under the same head in its decision dated 14-4-2015, being inefficiency on the part of the Petitioner.

15.12. The summary of revised EPC cost payable is provided hereunder:

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Description	Assessed	Revised	Difference
	Rs. Mln	Rs. Mln	Rs. Mln
USD	1,379.93	1,373.62	(6.31)
Euro	50.77	45.69	(5.08)
PKR	772.77	705.94	(66.83)
PKR escalation	-	200.824	200.82
Sub Total	**2,203.47**	**2,326.07**	**122.60**

15.13. Accordingly, the Authority has decided to approve Rs. 2,326.07 million on account of EPC cost payables against assessed amount of Rs. 2,203.47 and the same shall be included in the project cost at the time of COD tariff adjustment stage.

16. Whether to allow project resumption cost of PKR 4,531.08 million in EPC cost?

16.1. The Petitioner submitted that in its Determination of 14.04.2015, NEPRA has disallowed project resumption cost of Rs. 6,725.57 million on the plea that it pertains to delay in the construction of the project. It may be noted that NPGCl, has completed the project at much competitive EPC cost even after paying the project resumption cost.

16.2. According to the Petitioner, NPGCL executed Amendment No# 2 to the original contract with EPC contractor amounting to USD 67 Million in the light of decision of Honorable Supreme Court of Pakistan. This cost is part and parcel of original cost of the project through which original investment and project was saved by the management in this crucial time when there is huge shortage of generation capacity in the country. Although it changed the project economics by some extent but still EPC Cost of the project remained far below than other comparable projects installed in the country in almost same period. One Example is the UCH-II power project which uses the same GE Turbines having less capacity. Following is the comparison table of EPC costs of Nandipur Project with UCH-II Power project.

	UCH II (386.2 MW)	Nandipur (505.592 MW)
EPC Cost	USD 370.253 million	USD 360.85 million
Per MW EPC Cost	USD 0.959 million	USD 0.714 million

16.3. According to the Petitioner, from the above table it is evident that even by allowing these costs NEPRA, will not cross the benchmark set itself by the Learned Authority. The petitioner requested to allow project resumption cost of Rs. 4,531.08 million as EPC cost and modify the Reference Tariff accordingly.

16.4. In response to a query regarding the difference in disallowed cost of Rs. 6,725.57 million and requested cost of 4531.08 million, the Petitioner vide email dated 9-4-2021 explained that NPGCL has requested to allow project resumption cost of Rs 6,725.57 million in its tariff petition dated 20.05.2014 for LCs opened by NPGCL based upon the estimates provided by the contractors after signing of the agreement. Whereas the claimed amount of Rs 4,531.08 million is the actual amount paid by NPGCL on submission of related claims by the contractors supported with required contemporary record.

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16.5. The submissions of the Petitioner have been examined. The Authority in its three previous decisions has disallowed the project cost on account of delay and accordingly decided to maintain its earlier decision in the matter.

17. Whether to allow 3% premium on KIBOR without sharing the saving with the power purchaser/consumers?

17.1. According to the Petitioner, NEPRA in its Determination of 14-04-2015 disallowed USD 4.53 million paid on arranging foreign loan facilities on the plea that NPGCL has not availed these loans. NEPRA has also disallowed Forced Payment against Documents (FPAD) of Rs. 8,410.84 million on the plea that it had to be paid by local banks due to not having backed by foreign currency financing. On the other hand, has shard only 40% of the difference between 3% benchmark allowed to IPPS and weighted average margin of 1.82% of the loan took by NPGCL. To be fair enough, the 100% difference of margin should have been allowed to NPGCL to compensate the disallowed amount of financing cost on foreign loans, FPAD and indexation in USD for potentially availed foreign currency loans. It is therefore requested to allow 3% spread over KBOR of 8.53% matching to the benchmark allowed to the IPPs and modify the reference tariff accordingly.

17.2. The submissions of the Petition have been examined. The existing tariff has been worked out on the basis of 8.53% KIBOR and a premium of 2.292% after sharing the savings of 1.18% (benchmark 3%-actual 1.82%) in the ratio of 60:40 between power purchaser and the Petitioner. The sharing in the savings in interest cost is provided in the Power Policy and uniformly applied in the cases of all IPPs. The submission of the Petitioner to allow benchmark premium of 3% to cover the disallowed cost associated with unavailed foreign financing is not justified and the Authority has decided to maintain its earlier decision in the matter.

18. Whether to allow one-time adjustment in Heat Rate for efficiency loss adjusting factors?

18.1. The Petitioner submitted that during performance testing of the plant operational parameters have been measured, while there are various factors which contribute towards heat loss and cannot be measured during plant performance testing. As per Generally Accepted Engineering Practices, international standards and NEPRA practice, one-time adjustment is allowed for various factors contributing towards heat rate loss during normal operation of the plant for which adjustments have been proposed by the independent engineer and outlined below.

i. Recoverable and non-recoverable adjustment
ii. Blow down adjustment
iii. Ambient Temperature adjustment
iv. efficiency adjustment due to miscellaneous factors

18.2. According to the Petitioner, the calculation of One Time adjustment of Complex Efficiency was managed from the EPC Gas conversion contractor for allowing the same by NEPRA as under:

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i.	Recoverable and non-recoverable adjustment	=	0.181%
ii.	Blow down adjustment	=	0.180%
iii.	Ambient Temperature adjustment	=	0.000%
iv.	Miscellaneous adjustment	=	0.100%
	Total one Time Adjustment to Efficiency	=	**0.461%**

18.3. In view of above, NPGCL is seeking 0.461% one-time efficiency adjustments, based upon above factors, which is less than 0.898% one-time adjustment already allowed by NEPRA in case of UCH-II power plant, in its determination dated 16-10-2009.

18.4. The Petitioner also requested for determination of efficiency of 47% and 46.53% after above onetime adjustment for intermittent operation from 8-5-2017 to 6-10-2017. Under Section 12 of the Petition, the Petitioner also requested partial load adjustment charges, degradation factor and start-up charges.

18.5. The submissions of the Petitioner have been examined. Under Para 50(a) of the decision dated 27-1-2016, the determined efficiency is subject to adjustment at the time of COD tariff adjustment. Partial load adjustment, Heat Rate Degradation and Start-up Charges shall also be determined at the time of COD tariff adjustment or shall be determined through separate proceedings.

19. Whether to allow increase of 7 Paisa per unit in Fixed O&M charge?

19.1. The Petitioner submitted that NPGCL carries out operation and maintenance of its power plants through in-house O&M team. However, the O&M of CCPP Nandipur has been outsourced to M/s. Hydro Electric Power System Engineering Company, China (HEPSEC) through competitive process. The agreement in this regard was signed on 06.02.2017. As per terms of the agreement. NPGCL will pay contract price of Rs. 2,742,384,418.48 and USD 130,345,217.28 during a period of 10 years. Some of the charges are to be paid monthly, quarterly and on event basis during the tenor of the O&M Contract.

19.2. According to the Petitioner, for reference purposes, the Fixed O&M of contract in foreign currency is to be paid annually for Rs 763.93 million worked out at the rate of PKR 0.2245/kW/h for generation of 34,028,279,568 kWh in 10 years. In addition, to supervise the O&M contract, NPGCL has to incur an estimated amount of fixed O&M cost of Rs 282 million per annum comprising of mainly expenses of salaries & benefits of security personal, O&M-contract execution staff and- land lease rentals as per breakup shown in table below:

NPGCL Fixed O&M margin per annum	Rs. Mln
Security expenses	200.40
Corporate office admin cost	81.60
Land lease rental	8.99
Total	282.00

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19.3. According to the Petitioner the total annual fixed O&M cost works out as Rs 1,045.93 million (Rs 763.93 M Foreign + Rs 282 M Local). The fixed O&M rate at Reference Net Dependable Capacity on operation on RFO and Gas works out as under:

Yearly O&M Expenses	PKR Millions	PKR/kWh (RFO)	PKR/kWh (Gas)
Fixed O&M – Foreign	763.93	0.2120	0.1936
Fixed O&M – Local	282.00	0.0783	0.0715
Total Fixed O&M	**1,045.93**	**0.2903**	**0.2651**
Reference Net Dependable Capacity		411.351 MW	450.4777 MW
Yearly NEO at Reference Capacity		3,603.4 GWh	3,946 GWh

19.4. According to the Petitioner, NEPRA has allowed adjustments in O&M charge on quarterly basis, whereas under the O&M Agreement the USD parity is indexed naturally while making monthly payment of O&M service fee. Therefore, same is required to be indexed monthly as per provisions of the O&M contract. the Petitioner requested NEPRA to modify Reference Tariff of Fixed O&M charge as per actual for both operations i.e. on RFO and on Gas as shown in the table above and also change the indexation of O&M charge from quarterly to monthly basis.

19.5. The submissions of the Petitioner have been examined. The Petitioner was allowed fixed O&M cost as per its request on both fuels while variable O&M cost was allowed on the basis of June 2015 variable O&M of similar KAPCO plant. The O&M cost is subject to adjustment at actual at the time of COD in case the revised actual number is less than the allowed. A synopsis of the approved O&M cost is provided hereunder:

Fuel	Variable O&M			Fixed O&M		
	Foreign	Local	Total	Foreign	Local	Total
	Rs./kWh			Rs./kW/h		
RFO	0.4800	-	**0.4800**	0.1273	0.0898	**0.2171**
Gas	0.3435	-	**0.3435**	0.1170	0.0826	**0.1996**

19.6. The Petitioner has requested for revision in fixed O&M cost only in the light of O&M Agreement entered into between Hydro Electric Power System Engineering Company (The "Operator") and Northern Power Generation Company Limited (The "Owner") dated 6th February 2017 for 10 years or upto completion of second major inspection whichever is later. The plant achieved COD on 23-7-2015 on RFO fuel and has been operating on RLNG fuel only since 6-10-2017 after conversion from RFO to gas.

19.7. According to the O&M contract Schedule B Appendix-I item No. 2, the fixed cost of turnkey O&M contractor comprises local portion of Rs.2,568.39 million and foreign portion of US$ 49.24 million with total of Rs. 7,640.09 million on reference exchange rate of Rs. 103/US$. This cost include 1 year plant operation on HSFO and 9 years plant operation on gas/RLNG.

19.8. The variable cost of turnkey contract comprises of local portion of Rs. Rs.174 million and foreign portion of US$ 76.61 million (including fuel additive of $ 4.693 Mln for RFO fuel only) with total of Rs. 8,064.83 million on reference exchange rate of Rs. 103/US$. This cost include 1 year plant operation on HSFO and 9 years plant operation on gas/RLNG.

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19.9. The calculation of O&M cost on the basis of contract price is provided hereunder:

Description	Fixed O&M		Variable O&M	
	Rs. Mlns	Rs./kW/h	Rs. Mlns	Rs./kWh
Local	2,321.26	0.0654	156.60	0.0049
Foreign	4,530.20	0.1276	6,666.74	0.2099
Sub-Total Contract Cost	**6,851.46**	**0.1930**	**6,823.34**	**0.2148**
Local-Annual NPGCL Overhead cost	282.00	0.0715	-	-
Total	**7,133.46**	**0.2645**	**6,823.34**	**0.2148**
* Variable O&M has been worked out on the basis of reference unit generation of 31,764.87 GWh for 9 years as per O&M contract Appendix-I				
**Fixed O&M has been worked out on the basis of reference net capacity of 450.4777 MW for gas as per approved tariff which shall be subject to downward adjustment if net capacity is established higher than the reference.				

19.10. The O&M contract is effective from the commencement date which is 6th January 2018. The plant has been providing electricity on single gas/RLNG fuel since 6th October 2017 and the O&M operator never operated the plant on RFO fuel, therefore, O&M components on RFO fuel under O&M contract has not been worked out. Before the commencement date, the complex was operated by NPGCL itself, therefore, it would be appropriate to allow actual O&M cost post COD of the complex on RFO and gas/RLNG till commencement date subject to maximum of the approved O&M tariff. NPGCL shall submit verifiable documentary evidence of the actual fixed and variable O&M cost in PKR and the same shall be considered for determination of O&M.

19.11. The Petitioner's request for monthly indexation is not in line with the Policy and other power plants, therefore, has not been accepted. The approved local and foreign O&M cost under the O&M contract shall be subject to local CPI and US CPI/ exchange rate variation respectivelyThe following reference indexation values as specified in Schedule G of the Contract shall be applicable:

i. Exchange Rate Rs. 103/US$
ii. US CPI 236.151
iii. Local CPI 198.80

19.12. Overhead cost include security cost, admin cost and land lease rentals. NPGCL shall submit verifiable documentary evidence at the time of COD tariff adjustment for admissibility of local overhead cost.

20. Whether to allow increase of 9 Paisa per unit in cost of working capital on gas?

20.1. The Petitioner requested cost of working capital component on Gas/RLNG of Rs. 0.1319 /kW/h against already determined component of Rs. 0.0405 /kW/h. According to the Petitioner, reference tariff was determined based upon assessed working capital cost of Rs

159.76 million for operation of power plant on gas. According to the Petitioner, SNGPL has signed an Interim Agreement for supply of 100 MMCFD gas/RLNG on 10-05-2018, which requires NPGCL to provide cash deposit/ SBLC of Rs 2.087 billion and make payment in 3 days for weekly billing. According to the Petitioner, this contractual arrangement has increased working capital need of NPGCL to Rs 520.53 million, hence modification in Reference Tariff is required for the increased working capital cost on operation of Power Plant on gas. The Petitioner provided following modified working capital cost on Gas/RLNG has:

1. Cost of Cash Deposit/ SBLC	
Amount of Cash Deposit/SBLC (Mln. Rs)	2,087
6 Month KIBOR	11.25%
Spread	2.00%
Interest Rate (11.25+2.0)	13.25%
Sub. Total Working Capital Cost	276.53
2. Cost of Current billing/payment (7+3) days	
Last 3-year average generation on Gas (GWh)	1,925
Last 3-year average Gas supplied (MMCF)	15,888
Last 3-year average Gas supplied (MMBTU) CV= 933.37 BTU/SCF	14,824
Average Gas Supply per month (MMBTU)	1,235
RLNG Price (USD/ MMBTU)	10.5338
USD Conversion Rate	141.519
RLNG Price (PKR/ MMBTU) (10.5338*141.519)	1,490.73
Gas price assessed (Mln.RS)	1,841.53
Interest Rate (11.25+2.0)	13.25%
Sub. Total Working Capital Cost	**244.00**
G. Total Working Capital Cost (1+2)	**520.53**

20.2. The Petitioner requested Cost of Working Capital component of the reference generation tariff to be indexed to (a) change in FCC due to fuel price variations, and (b) the 3 Month KIBOR rate as notified by the State Bank of Pakistan.

20.3. The submissions of the Petitioner have been examined. Under the existing annual approved cost of working capital of Rs. 159.764 million translated into Rs. 0.0405/kW/h, only cost of 30 days receivable at 60% load was allowed at LHV gas price of Rs. 956.97/MMBTU, net

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capacity of 450.48MW, thermal efficiency of 49%, exchange rate of Rs.100/US$, GST of 17%, 8.53% KIBOR and spread of 2%. The approved cost is subject to adjustment according to the actual gas/RLNG price at the time of COD along with the actual KIBOR. The approved cost is also subject to onetime adjustment in accordance with the net capacity test mechanism. During the post COD period, the approved component is subject to quarterly or biannually adjustment as the case may be, with 3 months or 6 month KIBOR.

20.4. The Petitioner's request for allowing cost of SBLC/cash deposit (30 days) is in line with the arrangement with other large RLNG power plants of approximately 1200 MW each. In case of three operational plants, one month cash deposit along with 2 months' SBLC have been approved in accordance with the GSA. In case of Punjab Thermal Plant which is under construction phase, 3 months SBLC was approved in the tariff, however, as per negotiated GSA only one month SBLC is required. The approved cost of SBLC is 1.5%. The cost of SBLC @1.5% shall be allowed in accordance with the terms of the GSA for RLNG supply and shall be incorporated in the cost of working capital at the time of COD tariff adjustment.

20.5. In case of fuel cost receivables from the power purchaser, cost of 30 days at 60% load was approved. In case of referred RLNG power plants, cost of receivables have been approved on the basis of actual payment cycle of 26 days keeping in view the GSA and PPA with actual load factor on the basis of energy delivered in the preceding quarter. The similar mechanism is approved in the instant case. The receivable cost shall be determined with actual payment cycle in accordance with the PPA and GSA and load factor and the requisite adjustment shall be made at the time of COD tariff adjustment.

20.6. During the Post COD period, the cost of working capital shall be adjusted on account of fuel price, KIBOR and actual load factor in line with the referred RLNG power plants.

20.7. The subject plant was initially commissioned on RFO fuel but later converted to gas/RLNG with no backup fuel, therefore, the Petitioner did not require cost of inventory of the backup fuel.

20.8. The Petitioner under Para 10.4 of the Petition also requested adjustment of cost of working capital on account of RFO price and revised KIBOR. As per the approved mechanism, the subject adjustments shall be made at the time of COD tariff adjustment.

21. Whether to allow reduction in Return on Equity Charge from 15% to 10%?

21.1. The Petitioner requested return on equity @10% instead of 15% in accordance with the decision of the government communicated vide letter No. CPPA/CFO/DGMF-1/20950-52 dated 09.10.2020. The Petitioner requested reference ROE components of Rs. 0.7277/kW/h and Rs. 0.6856/kW/h on RFO and gas/RLNG respectively. The Petitioner requested that the Return on Equity shall be quarterly indexed to the USD / PKR exchange rate based on the revised TT & OD selling rate of USD as notified by the National Bank of Pakistan.

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21.2. NPGCL vide letter No. CEO/MZG/1730(7) dated 8th December 2020 requested to decide the matter of reduction in ROE by issuing interim order as per power conferred to the Authority under Rule 4(7) of NEPRA (Tariff Standards and Procedure) rules, 1998, which states that:

> *"The Authority may, while admitting a petition, allow the immediate application of the proposed tariff subject to an order for refund for the protection of consumers, or for the satisfactory security to be provided for refund, while the proceedings as pending before the Authority"*

21.3. The Petitioner requested following revision:

Ref. Tariff annual NEO on Gas	(GWh)	3,946.18
Reference Tariff Return on Equity-Gas	(Rs./kW/h)	0.7760
Annual ROE Charge	(Mln.Rs)	3,062.24
Rate of ROE	%	15%
Ref. Equity Investment (Equity=ROEDC)	(Mln.Rs)	20,414.90
Revised rate of ROE	%	10%
Revised annual ROE Charge	(Mln.Rs)	2,041.49
Revised Reference Tariff ROE-Gas	(Rs./kW/h)	0.5173
Revised Tariff Petition		
Revised equity investment (Equity=ROEDC)	(Mln.Rs)	27,053.17
Revised rate of ROE	%	10%
Revised annual ROE Charge	(Mln.Rs)	2,705.32
Revised Reference Tariff ROE-Gas	(Rs./kWh)	0.6856

21.4. The Authority considered the request of Interim Tariff and decided to allow interim tariff of Rs. 0.3818/kW/h vide its decision dated 12th January 2021 on the basis of equity investment of Rs. 15,066.31 million and return on equity of 10% in line with the CCOE decision dated 27/8/2020.

21.5. Being aggrieved of the interim decision, the Petitioner filed a motion for leave for review on 21st January 2021and stated that the Authority's decision is not in line with CCOE decision. The Petitioner referred Annex- III to the CCOE decision wherein the annual impact for CCPP Nandipur block has been shown as follows:

Present ROE		Proposed ROE		Annual Reduction
Rate	Rs. Mlns	Rate	Rs. Mlns	Rs. Mlns
15%	3,062	10%	2,041	1,021

21.6. The Petitioner requested to review the impugned determination and reduced amount of ROE tariff component for CCPP Nandipur block may be approved amounting to Rs. 2,041.49 million calculated @ 10% per annum which translates into Rs. 0.5173 per unit.

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21.7. The submissions of the Petitioner have been examined. The instant issue pertains to the disapproval of ROEDC. The following comparison quantifies the issue:

Description	Reference	Requested	Approved
Rate of Return	@15%	@10%	@10%
ROE	2,260	1,507	1,507
ROEDC	802	535	-
Total	**3,062**	**2,041**	**1,507**

21.8. The Authority disapproved the ROEDC purely on the basis of CCOE's decision which is reproduced hereunder:

"With regard to GENCO, impact of reduction of RoE of all GENCOs to 10% would be around Rs. 3.5 bln for FY-21. The payables of GENCOs as on Jun-20 is around Rs.48 bln. At present the profit making GENCOs are supporting the loss making GENCOs which will require budgetary support to cover their losses (Annex-III)."

21.9. The Authority evaluated the above decision with the decisions in case of nuclear and RLNG projects which are reproduced hereunder and decided to allow only ROE at 10%:

Nuclear Projects:

*"After fixing ROE of nuclear power plants at **14.50% IRR and freezing PKR to US dollar rate at Rs. 148** the impact of the nuclear power plants would be around 2.07 bln for FY 2021. The payables of Nuclear power plants as on June-20 is Rs. 59 bln"*

RLNG Projects:

*"To compare the Returns on Equity of Govt owned RLNG IPPs with the other Government owned Projects, the Return is reduced to **12% IRR with dollar indexation**. The projected reduction in RLNG projects will be Rs. 6.71 bln. Currently the projects owned by the NPPMCL (Federal Government Owned Plants) is in the privatisation list and bidding process is near to finalization stage. Post prizatisation the returns will be dependent on the new investors in case of local investor's returns will be 17% without dollar indexation using US$ to Rupee parity at Rs. 148 per US$, however, foreign equity will get 12% with dollar indexation. The payables to NPPMCL and QATPL as on Jun-20 is Rs. 42 bln"*

21.10. Accordingly, the Authority decided to allow only ROE at 10% in the instant case. Para 4(b) of CCOE's decision is silent with respect to dollar indexation and IRR basis of ROE in case of GENCOs, while in cases of nuclear power plants and Government owned RLNG power plants the issue of dollar indexation and IRR basis of ROE has been clearly addressed. Nevertheless, the concerned GENCO was asked to seek clarification in this respect from CCOE. NPGCL (GENCO-III) vide letter No. CEO/MZG/16 dated 25/03/2021 requested GENCO Holding Company Limited to approach Ministry of Energy (MOE) to take-up the matter with the CCOE to review its decision and bring ROE of CCPP Nandipur at par with RLNG plants of NPPMCL with dollar indexation. GENCO Holding Company Limited vide

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letter No. GHCL/CEO/CFO/1247-48 dated 09/04/2021 requested MOE that the competent forum may please be approached to consider and allow ROE of CCPP Nandipur at par with other Government owned RLNG power plants because Nandipur power project is also operating on RLNG and is also at active list of privatisation. However, no response has been received till date.

21.11. NPGCL highlighted that CCOE in its decision dated August 27, 2020 approved reduction of ROE from 15% to 10% with financial impact of Rs. 1.021 Billion. As per the Annex-III of the CCOE's decision the existing annual ROE (including ROEDC) @ 15% return of Nandipur block amounts to Rs. 3,062 Million while the annual ROE (including ROEDC) @ 10% return amounts to Rs. 2,041 Million. NPGCL requested that the reduced amount includes ROEDC, therefore, the same maybe allowed to the Petitioner.

21.12. As presented above, the comparison shows that the reduced amount in the Annex-III includes the impact of ROEDC and impliedly the intention was to reduce the impact of ROE to 10% with other things remaining the same. The misunderstanding arises because the tariff of old blocks of all GENCOs do not include ROEDC and dollar indexation except for two new blocks of Nandipur and 747 MW. In the case of Nandipur since the tariff has not been trued up at COD so far, the reference tariff is applicable without dollar indexation and the impact was also calculated without dollar indexation in referred Annex-III.

21.13. In a similar case of Guddu 747 MW, the Authority considered the matter of allowing ROEDC and dollar indexation and decided to allow the same on the basis of Annex-III of the CCOE decision and plant being in the privatization list. Being similar case, the Authority has decided to revise the approved ROE of 10% on IRR basis along with dollar indexation.

21.14. The amount of ROEDC in the existing tariff was Rs. 5,267.14 million on 15% which was reworked on 10% to Rs. 3,408.73 million. Accordingly, on the basis of equity of Rs. 15,066.31 million, ROEDC of Rs. 3,408.73 million, IRR of 10% and exchange rate of Rs. 103/US$, the reference ROE component on gas/RLNG fuel has been revised to Rs. 0.4734/kW/h. The revised component shall be effective from 12th January 2021 and shall supersede the interim component issued vide decision dated 12-1-2021. The revised component shall be re-established at the time of COD tariff adjustment. After conversion, the plant is only available for dispatch on gas/RLNG, therefore, reduced ROE component is neither required nor approved on RFO fuel

21.15. Since the issue highlighted in review dated 21-1-2021 against the interim decision dated 12-1-2021 pertaining to ROEDC and exchange rate indexation on ROE component has been addressed in the instant petition, the review against interim decision shall stand disposed of accordingly.

22. Engineering & Consultancy Cost

22.1. The Petitioner requested additional consultancy charges of Rs. 173,230,646 on account of preparation and evaluation of bids for O&M contract (60%) and EPC claim verification (40%). The Petitioner requested Rs. 103.938 million under O&M mobilization cost and Rs. 69.292 million under local portion of EPC. In the original petition, engineering &

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consultancy cost was considered under separate head, therefore, there is no justification to allow the additional cost under EPC and O&M mobilization and accordingly is being considered separately.

22.2. In the original petition, the Petitioner requested consultancy charges of Rs. 498.58 million which were later revised to Rs. 432.59 million including amendment No. 3. The Authority disallowed Rs. 26.22 million being delay cost related to NESPAK work and remaining cost of Rs. Rs. 406.37 million was allowed. The Petitioner was asked to provide the documentary evidence of the additional work order. The petitioner provided Amendment No. 4, 5 & 6 in support. According to the price schedule of Amendment No. 6, total contract price is Rs. 497.62 million. The additional cost works out Rs. 65.03 million (Rs. 497.62m - Rs. 26.22 m -406.37m) and being approved (total Rs. 471.4 million) which shall be subject to payment verification at the time of COD tariff adjustment stage as complete payment has not been made till date. Further the Petitioner will also satisfy that the additional cost pertains to O&M contract and EPC claim verification pertaining to gas conversion.

22.3. The impact of Punjab Sales Tax on consultancy charges has not been accounted for in the approved cost as the same is adjustable under the Sales Tax Act. In case of non-adjustability of provincial sales tax, the same may be claimed at the time of COD tariff adjustment.

23. Insurance Cost

23.1. The Petitioner referred Para 84 of the determination dated 14-4-2015 which provides mechanism for adjustment of Insurance cost at actual with maximum of 1.35% of EPC approved cost at the time of COD. The Petitioner also referred para 67 of the Determination dated 27.01.2016 which provides that the actual insurance cost for the minimum cover required under contractual obligations with the Power Purchaser not exceeding 1.35% of the EPC cost will be treated as pass-through. Insurance component of reference tariff shall be adjusted as per actual on yearly basis upon production of authentic documentary evidence.

23.2. According to the Petitioner, insurance cost @ 1.35% of adjusted EPC cost of Rs 32,683 million works out as Rs 441.22 million per annum which translates into cost of Insurance charge as Rs 0.1225/kWh on RFO operation and Rs 0.1118/kWh on gas operation, the same is requested to allow in the revised Reference Tariff.

23.3. The submissions of the Petitioner have been examined. The mechanism for adjustment of insurance cost is already in place and insurance cost shall be adjusted at the time of COD tariff adjustment stage.

24. Pre-COD Operating Cost

24.1. According to the Petitioner, NPGCL is operating the CCPP Nandipur during pre-COD period on the request of power operator. From May 2014 to Jul 2015 NEO of 328.204 GWh was delivered to national grid from CCPP Nandipur. NPGCL raised invoices of PKR 6,765.091 million including GST of PKR 982.962 million to CPPA. CPPA-G is not verifying the claims on the ground that NEPRA has not determined power sale rates during

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pre-COD period. The Petitioner requested to approve power sale rates for pre-COD period to resolve the matter.

24.2. The submissions of the Petitioner have been examined. The Petitioner was required to seek approval of tariff for each pre-COD period. In case of IPPs, under Section 8.7(a) of the PPA, any net electrical output delivered after synchronization of the complex to the grid system and prior to the commercial operations date, the power purchaser shall pay the company only the fuel cost component of the energy price for net electrical output. The Petitioner is also entitled to receive payment of fuel cost component on the rates approved by NEPRA. For this purpose, the Petitioner has to file separate request for approval of fuel cost component for each period/month.

24.3. It has been observed from the information provided by the Petitioner that some of the energy delivered out of 328.204 GWh was produced on diesel. The Authority did not approve the tariff on diesel, therefore, the same shall be assessed on the basis of RFO at applicable/prevailing prices in the relevant period.

Privatization of CCPP Nandipur

24.4. According to the Petitioner, Nandipur plant is part of the privatization program of Government of Pakistan (the "GOP"). The privatization process is currently underway with the GOP having engaged advisors who are undertaking the required seller's due diligence and transaction structuring tasks therefore, NPGCL may file application to the Authority subsequently for further modification of Reference Tariff if required.

25. Claw Back Mechanism

25.1. In case the company earns profit in excess of the approved return including ROEDC, the excess profit shall be shared between the power producer and power purchaser through a claw back mechanism to be decided by the Authority through the relevant framework after taking into account the provision for periodic/major overhauls and other requisite adjustments, if any.

26. ORDER

26.1. Pursuant to Section 31 (7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 read with Rule 16 (11) of NEPRA Tariff Standards and Procedure Rules, 1998, the National Electric Power Regulatory Authority (hereinafter "the Authority") has modified the decision of the Authority dated 27th January 2016 to the extent of followings:

i. Approval of gas connection infrastructure cost of Rs. 2,808. 688 million.

ii. Approval of gas conversion cost of Rs. 2,146.344 million against assessed amount of Rs 2,089.87 million.

iii. Approval of cost of spares inventory of Rs. 1,798.605 million against assessed amount of Rs. 1,483.986 million.

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iv. Approval of cost of completed and planned civil works of Rs. 654.186 million subject to verification as per actual expenditure with maximum cap after adjusting cost of disallowed items.

v. Approval of actual mobilization cost of Rs. 470.05 million against assessed cost of Rs. 515 million.

vi. Approval of Rs. 2,326.07 million on account of EPC cost payables against assessed amount of Rs. 2,203.47 million.

vii. Approval of Rs. 471.4 million on account of Engineering and Consultancy charges of NESPAK against assessed amount of Rs. 406.37 million.

viii. Approval of local variable O&M of Rs. 0.0049 /kWh and foreign variable O&M of Rs. 0.2099/kWh against assessed component of Rs. 0.3435/kWh after commencement date.

ix. Approval of local and foreign fixed O&M cost of Rs. 0.1369/kW/h and Rs. 0.1276/kW/h against assessed component of Rs. 0.0826 kW/h and Rs. 0.1170 /kW/h respectively subject to verification of NPGCL's overhead cost after commencement date.

x. Before commencement date, O&M cost shall be determined as per actual subject to maximum allowed in the determination.

xi. Approval of cost of SBLC @1.5% in accordance with the terms of the GSA for RLNG supply as part of working capital cost. The receivable cost part of working capital shall be determined with actual payment cycle in accordance with the PPA and GSA and load factor.

xii. Approval of reduced ROE component of Rs. 0.4734/kW/h on gas/RLNG fuel against reference component of Rs. 0.7760 kW/h.

26.2. The above adjustments shall be made in the project cost and relevant tariff components at the time of COD tariff adjustment stage.

26.3. The revised ROE component shall supersede the interim tariff determined vide decision dated 12th January 2021 and shall be effective from 12th January 2021.

26.4. The capacity payments shall be linked to the hourly availability of the power plant and fuel supply shall be the responsibility of the power producer. The burden of non-availability of the fuel shall not be passed on to the consumers and no capacity payments shall be made in case of non-availability of fuel.

26.5. NPGCL is also directed to seek required modifications in the generation license and remove inconsistencies particularly regarding primary/secondary fuel.

27. NOTIFICATION

27.1. The above tariff is intimated to the Federal Government for notification in the official gazette in accordance with Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997.

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National Electric Power Regulatory Authority
Islamic Republic of Pakistan

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No. NEPRA/TRF-271/NPGCL/ 2273 May 27, 2022

The Manager
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Khayaban-e-Suharwardi,
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Subject: **NOTIFICATION REGARDING THE DECISION OF THE AUTHORITY IN THE MATTER OF PETITION FILED BY NORTHERN POWER GENERATION COMPANY LTD. FOR MODIFICATION/REVISION OF REFERENCE TARIFF OF COMBINED CYCLE POWER PLANT (CCPP) NANDIPUR**

In pursuance of Sub-Section 7 of Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997); enclosed please find herewith '*Decision of the Authority in the matter of Petition filed by Northern Power Generation Company Ltd. for Modification/Revision of Reference Tariff of Combined Cycle Power Plant (CCPP) Nandipur'* for immediate publication in the official Gazette of Pakistan. Please also furnish thirty five (35) copies of the Notification to this Office after its publication.

Encl: Notification (33 Pages) & CD

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(Syed Safeer Hussain)