



# National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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**Registrar**

No.NEPRA/TRF-145/NPGCL- 2009/1389-1391

December 24, 2009

**Subject: Determination of the Authority in the matter of Petition filed by Northern Power Generation Company Ltd. for Approval of Generation Tariff for Additional 150 MW Rental Power Plant (Unsolicited) of Techno-E-Power (Pvt.) Ltd. at Summundri Road G/S Faisalabad [Case # NEPRA/TRF-145/NPGCL-2009] Intimation of Determination of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)**

Dear Sir,

Please find enclosed the subject Determination of the Authority along with Annexure-I & II (08 pages) in Case No. NEPRA/TRF-145/NPGCL-2009.

2. The Determination is being intimated to the Federal Government for the purpose of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) and Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.

3. Please note that only Annexure-I & II of the Determination needs to be notified in the official Gazette.

**Enclosure: As above**

Secretary,  
Ministry of Water & Power,  
Government of Pakistan  
Islamabad.

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad
2. Secretary, Ministry of Finance, Islamabad.

  
Registrar



NATIONAL ELECTRIC POWER REGULATORY AUTHORITY  
(NEPRA)

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December 24, 2009

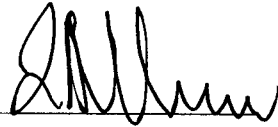
DETERMINATION OF THE AUTHORITY IN THE MATTER OF PETITION FILED  
BY NORTHERN POWER GENERATION COMPANY LIMITED (NPGCL) FOR  
APPROVAL OF GENERATION TARIFF FOR ADDITIONAL 150 MW RENTAL  
POWER PLANT (UNSOLICITED) OF TECHNO-E POWER (PVT.) LTD. AT  
SUMMUNDRI ROAD G/S FAISALABAD

PETITIONER


Northern Power Generation Company Limited (NPGCL),  
Mehmood Kot Road, TPS, Muzaffargarh

AUTHORITY

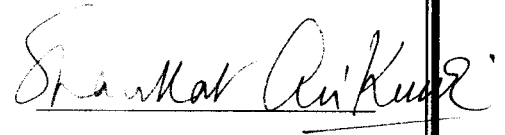
Zafar Ali Khan  
Member

  
18/12/09


Maqbool Ahmad Khawaja  
Member



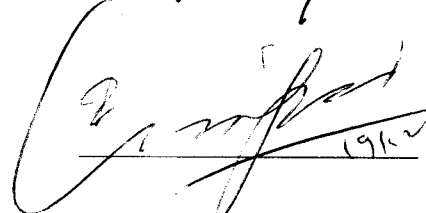
Shaukat Ali Kundi  
Member



Ghiasuddin Ahmed  
Member / Vice Chairman

  
18/12

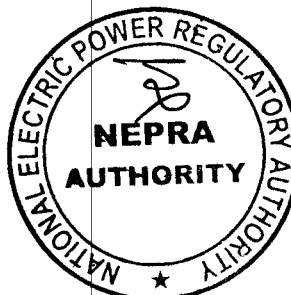
Khalid Saeed  
Chairman

  
19/12



## BACKGROUND

1. Northern Power Generation Company Limited (NPGCL) filed petition on October 5, 2009 for Determination of Generation Tariff for additional 150 MW Rental Power Plant (Unsolicited) of Techno-E-Power (Pvt.) Ltd. at Summundri Road G/S Faisalabad in accordance with the decision taken in ECC and Cabinet meeting on Rental Power Projects.
2. The Authority admitted the petitions on October 12, 2009. Notice of admission/public hearing was published on October 17, 2009 in order to invite participation of the stakeholders in tariff setting process. Individual letters were also sent to the stakeholders inviting them to assist the Authority in arriving at just and informed decision. In response to the advertisement and letters comments from Central Power Purchasing Agency received. Hearing in the matter was held on November 3, 2009 at NEPRA main office in which representatives of Ministry of Water & Power, Power Purchaser, petitioner, and other stakeholders participated.
3. According to the petitioner Techno-E-Power (Pvt.) Ltd. submitted an unsolicited proposal on May 8, 2009 to MD PEPCO with a copy to Additional Secretary, MoW&P for expansion in capacity of Rental Power Project from 150 MW to 300 MW at same terms and conditions as are applicable for existing 150 MW Rental Power Project awarded to Techno on February 14, 2008. The petitioner stated that PEPCO in its meeting dated June 6, 2009 approved the Rental Services Contract for the additional 150 MW on RFO at Summundri Road, Faisalabad subject to its approval from ECC. The Rental Services Contract was signed between NPGCL and Techno-E-Power on June 11, 2009 According to the terms of Rental Service Contract the Petitioner will pay lump sum contract price of US\$ 135,000,000/- for three years Rental Term at an indicative Rental Rate of 3.892 Cents/kWh at Guaranteed Availability of 88% and reference fuel cost component of 6.268/kWh worked out on the basis of RFO HHV reference fuel price of Rs. 26,000 per metric ton including transportation charges.
4. The petitioner submitted that Ministry of Water & Power initiated a summary for ECC dated August 17, 2009 seeking approval for unsolicited rental power projects. The relevant extract of Para 5 of the summary is reproduced as under:  
*"The MoW&P received a few unsolicited proposals which were offering a reasonable tariff compatible to the average rental tariffs received through ICB and are compliant to the ECC guidelines. The efficiency and available standards for these power plants and the financial model are the same as ICB projects".*
5. At para 6 of the summary it was proposed:  
*"MoW&P proposes that in view of the prevailing energy crises in the country, the Ministry may be allowed to fill the gap of 484 MW mentioned at Para 3 of the Summary and go ahead with the unsolicited proposals mentioned in Para 5 above. The tariffs for the unsolicited projects shall also be*



duly submitted to NEPRA for scrutiny and vetting. In view of the fact that load-shedding has to be brought to an end by December 2009, the Ministry is closely and constantly monitoring the progress of all these projects. In case of any default/slippage, the Ministry would update the ECC accordingly”.

6. The ECC in its decision No. ECC-121/15/2009 dated August 21, 2009 desire NEPRA’s approval for generation tariff. The extract of Sr. No. iii of the ECC decision is given hereunder:

*“The approved, unsolicited projects shall be required to obtain approval of their proposed tariff from NEPRA within the minimum period prescribed.”*

7. The petitioner further submitted that Ministry of Water & Power moved another summary on August 26, 2009 for approval of the ECC. The Para-2 and 4 are as under:

Abstract from Para-2

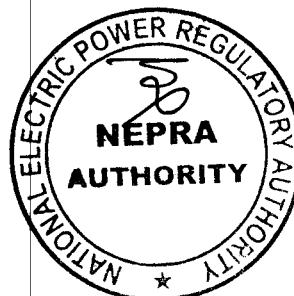
*“However, since certain slippages are likely to occur on account of financing constraints and the security situation, the Ministry has desired to substitute some of these RPPs with unsolicited proposals received by the Ministry and which were offering a reasonable tariff compatible to the average rental tariffs received through ICB and are compliant to the ECC guidelines. The efficiency and availability standards for these power plants shall be the same as ICB projects.”*

Abstract from Para-4

*“It is therefore requested that in view of the prevailing energy crises in the country, and Government’s public announcement to end load-shedding the Ministry of Water & Power may be allowed to go ahead with the balance of ICB projects. The ECC vide its decision on 21.8.2009 has already authorized the Ministry to undertake suitable adjustments/substitution and capping from the projects already in pipeline. The unsolicited projects shall however, be to obtain approval of their proposed tariff from NEPRA within the minimum period prescribed, as already decided by ECC as well.”*

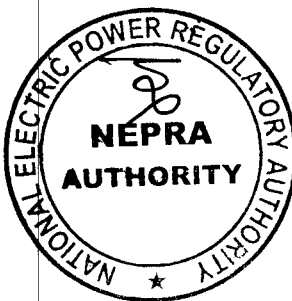
8. In pursuance of the ECC’s directions, the petitioner filed petition for determination of generation tariff for additional 150 MW Rental Power Plant (Unsolicited) of Techno-E-Power (Pvt.) Ltd. at Summundri Road G/S Faisalabad. The petitioner requested for approval of the following tariff:

Additional Summundri Road G/S Additional Block on RFO			
	Year 1	Year 2	Year 3
CPP Rs./kWh	4.1345	2.7779	2.7779
EPP Rs./kWh	6.2680	6.2680	6.2680
Total Average Tariff (Rs./kWh)	10.4025	9.0459	9.0459
US Cents/kWh	12.5331	10.8986	10.8986



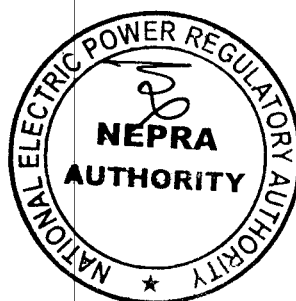


9. According to the Petitioner reference tariff is based on the following;
- i) Rental Payments
  - ii) Fuel Cost
  - iii) Supplemental / Pass Through Items
    - a) Non-refundable Custom Duties on consumables stores items and any other material imported for the Rental Power Project.
    - b) Interest, Markup, commission and any other financial charges i.r.o. any finance/credit facility obtained to meet financial obligations under Rental Service Contract dated 11<sup>th</sup> June, 2009 including but not limited to establishment and maintaining of Fuel Payment L/C, Loan for Advance Payment etc.
    - c) Actual Income/Turnover, Tax, any other duties/taxes etc.
    - d) Variation in fuel prices.
10. The petitioner also requested for adjustment of fuel cost component and indexation in rental charge on account of exchange rate variation.
11. Central Power Purchasing Agency supported the NPGCL application for determination of rental tariff as provided in the signed Rental Service Contract on the following grounds:
- a. The project is included in the list of solicited/unsolicited Rental Power Projects totaling up to 2216 MW that have been given go ahead signal by the Cabinet in view of the prevailing energy crises in the country;
  - b. Additional 150 MW Rental Power Project at Summundri Road Grid Station would add much needed power to the system on expeditious basis;
  - c. The tariff offered for the 150 MW Summundri -II extension project is comparable to recently signed RSC;
  - d. Techno-E-Power has developed necessary expertise and infrastructure at site during installation of Phase-I 150 MW Rental Power Project. This would help the Company to expedite construction activities and achieve Target Commercial Operations Date for 150 MW Summundri -II extension;
  - e. The project would be interconnected to existing 132 kV bus bar at Summundri Grid, thus, alleviating need for laying transmission lines for the project.



## DECISION OF THE AUTHORITY

12. The Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (hereinafter the Act) requires the Authority to determine tariff primarily on a cost plus basis wherein the Authority allows the generating companies (GENCOs) and IPPs all prudently incurred costs in connection with the generation facility. For that purpose the Authority has laid down elaborate criteria and procedures including but not limited to insistence on a firm EPC contract price and quotations from O&M contractors and evidence for other costs incurred on setting up the project. In the case of rentals, however, the Act, Rules and Regulations of the Authority do not provide for any elaborate procedure or guideline for evaluation of the offers made and determination of tariff for rental project through unsolicited offers. The Authority discussed the case in detail and decided that in the absence of the applicability of the criteria for the new plants of GENCOs and IPPs the following benchmarks or criteria will act as guidelines for the Authority while determining the tariffs being requested by the sponsors of the IPPs:
- The ECC in its decision ECC-37/03/2008 dated 15.02.2008 clearly laid down a guiding principle that efforts should be made that the tariffs being allowed to these rental plants should be below the first ten years tariffs for the same technology given to IPPs.
  - Recently PPIB has also conducted ICB for rental power projects on 16.02.2009 and the tariffs which were accepted by the Government therein and subsequently also approved by the Authority are also available for reference.
  - Likewise PEPCO had also invited rental projects proposals on 21.11.2007 and 10.12.2007 through the process of bidding. The tariff obtained through this bidding could also be taken into account as a reference.
13. Based on the above benchmarks and the criteria, the Authority has evaluated the proposal of Summundri extension and it considers that in the case of RFO based plant, the proposed rental of US Cents 3.4247/kW/hr is comparable with the average fixed capacity charge of US Cents 3.28/kW/hr for the first ten years determined for the IPPs. For the purpose of apple to apple comparison the capacity charge component of the IPPs for the first ten years has been adjusted with the common parameters. The Authority has recently approved rental charges of US Cents 3.4247/kW/hr in the case of first phase of Summundri for a period of 3 years. The rental charge of US Cents 3.4247/kW/hr as approved shall however be subject to adjustment for financial charges i.e. KIBOR plus 3% on advance rental, if any, the Petitioner is required to pay.
14. The Authority in other similar cases of unsolicited proposals has determined fuel cost component on the basis of 36% efficiency. Accordingly the proposed fuel charge part of tariff based on 36% thermal efficiency and calorific value of 18364 Btus/Lb has been worked out Rs. 6.0870/kWh. The heat rate and

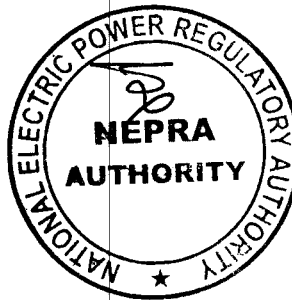




efficiency will be adjusted on the basis of test to be carried out at COD in the presence of NEPRA representative. In case the heat rate and efficiency is established higher than the minimum determined heat rate and thermal efficiency, the relevant tariff components will be adjusted accordingly. However, no adjustment shall be allowed in case the heat rate and efficiency is established less than the above referred benchmarks. This will be adjusted for fuel price and CV variation based on the documentary evidence.

15. Regarding the petitioner's request for reimbursement of the supplementary charges/pass through items on actual basis at Para 9, the Authority considers that the petitioner request except (ii)(c) is reasonable. The Authority however considers that the petitioner would require prior approval of the Authority for claiming such costs from the power purchaser on the basis of verifiable documentary evidence.
16. The Authority considers that the agreed timeline for project execution needs to be ensured; therefore in case of delay on the part of the sponsors of rental project in achieving the agreed COD, the relevant penalties clause of the Rental Service Agreement must be invoked by the Power Purchaser without any further extension. In pursuance of the Section 31 of the Regulation of Generation, Transmission and Distribution of electric power Act, 1997, the **Annex-I & II** of this determination are required to be notified in the official gazette.

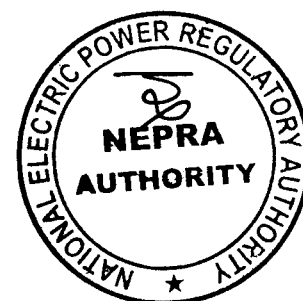
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# Northern Power Generation Company Limited

Advance	\$ 18.90 Million
Term	36 Months
3- Month KIBOR November 23, 2009	12.65%
Premium	3.00%

Month	Sammundari Road Extension 150 MW Rental Power Plant		
	Advance Outstanding	Advance Adjustment	Financing Cost
	Million US\$	Million US\$	Million US\$
1	18.9000	0.5250	0.2465
2	18.3750	0.5250	0.2396
3	17.8500	0.5250	0.2328
4	17.3250	0.5250	0.2259
5	16.8000	0.5250	0.2191
6	16.2750	0.5250	0.2123
7	15.7500	0.5250	0.2054
8	15.2250	0.5250	0.1986
9	14.7000	0.5250	0.1917
10	14.1750	0.5250	0.1849
11	13.6500	0.5250	0.1780
12	13.1250	0.5250	0.1712
13	12.6000	0.5250	0.1643
14	12.0750	0.5250	0.1575
15	11.5500	0.5250	0.1506
16	11.0250	0.5250	0.1438
17	10.5000	0.5250	0.1369
18	9.9750	0.5250	0.1301
19	9.4500	0.5250	0.1232
20	8.9250	0.5250	0.1164
21	8.4000	0.5250	0.1096
22	7.8750	0.5250	0.1027
23	7.3500	0.5250	0.0959
24	6.8250	0.5250	0.0890
25	6.3000	0.5250	0.0822
26	5.7750	0.5250	0.0753
27	5.2500	0.5250	0.0685
28	4.7250	0.5250	0.0616
29	4.2000	0.5250	0.0548
30	3.6750	0.5250	0.0479
31	3.1500	0.5250	0.0411
32	2.6250	0.5250	0.0342
33	2.1000	0.5250	0.0274
34	1.5750	0.5250	0.0205
35	1.0500	0.5250	0.0137
36	0.5250	0.5250	0.0068



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**Northern Power Generation Company Limited**  
**Reference Rental Tariff -RFO**  
**Sammundri Road Extension**

Description	Lump sum US\$ Million	Year1	Year2	Year3	Average
<b>a) Rental</b>					
1) Rental for 36 Months	135.00				
2) Advance Rental @ 14% of 36 months Rental	18.90	45.00 (2.51)	45.00 (1.52)	45.00 (0.53)	45.00 (1.52)
3) Annual Rental - Million US\$		42.49	43.48	44.47	43.48
4) Adjusment of Financing of advance Rental - Million US\$					
5) Annual Adjusted Rental - Million US\$					
<b>b) Rental Tariff</b>					
1) Rental USCents/kW/hr		3.4247	3.4247	3.4247	3.4247
2) Rental Tariff after adjustment of financing cost of Advance Rental - US Cents/kW/hr		3.2339	3.3090	3.3840	3.3090
3) Rental Rs./kW/Hour		2.6842	2.7465	2.8087	2.7465
<b>c) Fuel Cost Component - Rs./kWh</b>		6.0870	6.0870	6.0870	6.0870

Net Capacity at mean site conditions - MW

150

Availability

88%

Exchange Rate - Rs./USD

83

Net Thermal Efficiency

36.00%

Calorific Value (Btus/Kg.)

40,483

RFO Price per Matric Ton

26,000

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