

BEFORE THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

Case No. _____

CENTRAL POWER GENERATION COMPANY LIMITED (GENCO-II)

..... Petitioner

in the matter of:

TARIFF MODIFICATION PETITION TO INCLUDE AN OPEN-CYCLE TARIFF
FOR THE 747MW CCPP AT GUDDU IN CPGCL'S NOTIFIED TARIFF UNDER
S.3(1) OF THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
(TARIFF STANDARDS AND PROCEDURE) RULES, 1998 AND PROCEDURE)
RULES, 1998

Central Power Generation Company Limited (GENCO-II)
Thermal Power Station Guddu, District Kashmore
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30th July 2020

National Electric Power Regulatory Authority
NEPRA Tower, Attaturk Avenue (East),
G-5/1, Islamabad

**Re: Submission of Tariff Modification Petition on Behalf of Central Power
Generation Company Limited (GENCO-II)**

Sir,

1. We are submitting the attached Tariff Modification Petition on behalf of
Central Power Generation Company Limited (GENCO-II)

Yours faithfully,

Rizwan Faiz Associates

RIZWAN FAIZ ASSOCIATES

For in *Formal* & *u/s M*
- DR-I / *AM*
- MF
copy to
SAT-1
cc: chairman
- VC / *MC*
- MC / *CA*
- MC / *ME*
- MC / *li*

REGISTRAR
By No: *10660*
Dated: *05/08/20*

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RULES, 1998 AND PROCEDURE) RULES, 1998

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 PETITIONER
Through

ENGR. HAMMAD AMER HASHMI
Chief Executive Officer / Authorized Representative

Central Power Generation Company Limited (GENCO-II)
Thermal Power Station Guddu, District Kashmore
Tel: 0722-679088 Fax: 0722-679085
Email: genco2_guddu@yahoo.com

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RULES, 1998

The Petitioner submits as under: -

I. PARTIES AND RELEVANT FACTS

1. The Petitioner is a public limited company wholly owned by the Government of Pakistan ("**GOP**") incorporated on 26th October 1998 for the purpose of taking over the properties, rights, assets, obligations and liabilities of the thermal power stations located at Guddu, Sukkur and Quetta, formerly owned by the Water and Power Development Authority ("**WAPDA**"). The total installed capacity available at the Petitioner's various thermal power stations ("**TPS**") is 2,400MW, however, the net dependable capacity available for generation and purchase is 2,120MW.

2. On 1st July 2002, CPGCL obtained generation license No. GL/02/2002, from National Electric Power Regulatory Authority (*the* "**Authority**") to operate the power plants inherited from WAPDA ("**Generation License**"). The Generation License was subsequently modified on 26th April 2013 to include the 747MW Combined-Cycle Power Plant at Thermal Power Station, Guddu ("**747MW CCPP**"), and again on 10th July 2019 to exclude Units 1-4 of TPS Guddu, and to extend the expiry of the Generation License to 30th June 2042.

3. On 4th June 2015 the Petitioner submitted a tariff petition to the Authority for a determination of tariff for its 747MW CCPP ("**Tariff Petition**") [**ANNEX-A**]. Accordingly, on 26th April 2016, the Authority approved the

initial tariff (No. NEPRA/TRF-322/CPGCL-2015/5716-5718) for 747MW CCPP (“Initial Tariff”) [ANNEX-B]. Thereafter, the Petitioner applied for a review of the Initial Tariff on various ground challenging *inter alia* various construction, operation, and startup costs, which was disposed of through the Authority’s decision on 7th April 2017 (No. NEPRA/TRF-322/CPGCL-2015/4815-4817) (“Final Tariff”) [ANNEX-C], modifying the previous decision. Thereafter, the Petitioner signed a Power Purchase Agreement and Amendment No. 1 with the Central Power Purchasing Agency (Guarantee) Limited (“CPPA-G”) on 20th September 2015 (“PPA”). The Petitioner is furthermore awaiting formalities to bring into effect Amendment No. 2 to the PPA which will make provision for 747MW CCPP in the PPA.

4. In clause 4.3.2 of the Tariff Petition, the Petitioner clearly stipulated that the fuel cycle component (“FCC”) of open-cycle operations would be; “...1.5 times that of combined cycle operations”. The Authority acknowledged the Petitioner’s plea for an open-cycle operation tariff in clause 3.1(iv) of the Initial Tariff stating:

3.1

...

(iv) Heat Rates: The petitioner proposed combined cycle Net LHV Heat Rate of 6,608 kJ/kWh on gas (Gross 6,376 kJ/kWh) and 7,482 kJ/kWh on HSD (gross 7,199 kJ/kWh). The petitioner also proposed open cycle rates to be 1.5 times that of combined cycle's operation.

[Emphasis added]

However, neither the Initial tariff, nor the Final Tariff explicitly ruled on the issue of open-cycle operations. That said, both the Initial Tariff and the Final Tariff stated that all other assumptions not covered by the actual decision of the Authority to the relevant PPA:

General assumptions, which are not covered in this determination, may be dealt with as per the standard terms of the Power Purchase Agreement.

5. The PPA itself caters for open-cycle billing in the “Reference Tariff NEPRA Tariff Dated 24.02.2006” under Table 1 of Schedule-VI [ANNEX-D], where an explanatory note to that table states:

**These rates are for combined cycle operation. If operated on simple cycle mode on the instructions of NTDC, these rates will be charged at the rate of 1.5 times.*

[Emphasis Added]

6. The aforementioned provision is also reiterated under the reference tariffs described under both Table 1 and Table 1-A of Schedule-VI of the soon to be signed Amendment No. 2 to the PPA.

7. Subsequently, before and after the commercial operation date ("COD") of 747MW CCPP in December 2014, the Petitioner was compelled by the National Power Control Center ("NPCC" or "**System Operator**") to operate the plant in an open-cycle configuration. Before the COD, the Petitioner operated 747MW CCPP on open cycle at various intervals as part of the plant commissioning phase, but nonetheless supplied electricity to the grid. After the COD, NPCC, when confronted with exigent circumstances in the power sector, required the Petitioner to operate 747MW CCPP's various gas turbines units under open-cycle operation, knowing full well that their associated steam-generator or auxiliary machinery were under maintenance or the steam generators were not available for routine technical reasons. The total financial impact of the open-cycle operations on the Petitioner to date is Rs. 4.916 billion [ANNEX-E]. This amount has not been paid by CPPA-G on grounds of the absence of an explicit open-cycle tariff from the Authority in respect of the 747MW CCPP.

8. Furthermore, in order to help address the serious issue of load-shedding and power outages in Pakistan, the Petitioner has written to CPPA-G expressing its intention to formalize arrangements to supply electricity through open cycle operations of 747MW CCPP through its letter dated 10th July 2020 [ANNEX-F]. Resultantly, CPPA-G wrote to the Authority on 13th July 2020 endorsing the Petitioner's aforementioned proposal [ANNEX-G].

9. In all likelihood, the Petitioner will continue to be called upon by NPCC to conduct open-cycle operation of 747MW CCPP given the lack of sufficient cost-effective generation capacity in Pakistan at this time, and the exigent circumstances which have emerged in the power sector. Therefore, the Petitioner applies for modification of its Final Tariff on, *inter alia*, the

following grounds: -

II. GROUNDS

a. That, the Petitioner in any case originally applied for an open-cycle operations tariff in its Initial Tariff, clearly indicating the Petitioner's intention to provide electricity to the grid with maximum flexibility, including in those times when combined cycle operations were unavailable due to routine technical reasons.

b. That, the Petitioner's open cycle operations of 747MW CCPP before COD, were a necessary part of the commissioning process and provided the benefit of additional electricity to the grid. To deprive the Petitioner, a state-owned company, of the benefit of additional tariffs for open cycle operations of 747MW during commissioning would be damaging to the public exchequer and would be taking undue advantage of the Petitioner's efforts.

c. That, the Petitioner's open cycle operations of 747MW CCPP after COD were conducted on the instructions of NPCC, which knew full well that the Petitioner's routine maintenance work of 747MW CCP Unit (ST-16) meant that only open-cycle operations could be undertaken at that time.

d. That, the PPA (and the upcoming Amendment No. 2) in any case originally envisioned a higher tariff to be paid to the Petitioner for open-cycle operations. Furthermore, both the Initial and Final Tariffs in any cases impliedly accepted the open-cycle operations tariff by referring the issue of other assumptions to the PPA.

e. That, open cycle operations of 747MW CCPP are far cheaper than other Independent Power Producers, due to the state-of-the-art efficiency of the Petitioner's plant, and its reliance on indigenous natural gas (gas supplied through the dedicated gas pipeline from Kandhkot gas field) rather than high speed diesel or furnace oil.

f. That, the Petitioner's open cycle operations of 747MW CCPP will help combat the scourge of load shedding currently confronting Pakistan.

III. PRAYER

10. In view of the foregoing, it is humbly prayed that the Authority may kindly grant the following:

a. Allow the Petitioner to undertake open cycle operations of 747MW CCPP on the System Operator / NPCC's demand;

b. Allow the Petitioner an FCC tariff of 150% (1.5 times); the FCC in the Final Tariff for open-cycle operations of 747MW CCPP, according to the following formula:

Fuel Cost Component				
Guarantee Data		Unit	Value	
			Fuel Gas	HSD Oil
	Combined Cycle operation			
1	Net heat rate referred to LHV of Fuel	kJ/kWh	6,608	7,482
2	Conversion factor in kJ to BTU	kJ to BTU	0.947817	0.947817
3	LHV-HHV factor	LHV-HHV	1.1076	1.05
4=1*2*3	Net heat rate	BTU/kWh	6,937	7,446
5	Applicable Fuel Rate	Rs. /MMBTU/Rs. /Ltr	924	46.213
6=4*5 /1000000	FCC rate Combined Cycle	Rs. /kWh	6.4099	9.5535
7=6*1.5	Open / Simple Cycle operation (1.5 times) *	Rs. /kWh	9.6148	14.3303

*where 1.5 is the factor accounting for Open Cycle operation due to Non-availability of fuel-free Combined Cycle Generation.

c. Grant Any other relief, which the Authority may consider appropriate in the circumstances.

Islamabad, 30 July ~~August~~ 2020

PETITIONER / CENTRAL POWER GENERATION COMPANY LIMITED

Through



ENGR. HAMMAD AMER HASHMI
Authorized Representative / Chief Executive Officer