16th Floor, The Harbor Front Building, HC#3, Marine Drive, Block 4, Clifton, Karachi-75600, Pakistan
U 00 92 (21) 111-211-211
T 00 92 (21) 35297875-84
F 00 92 (21) 35293665

engro powergen qadirpur

20th February 2020

To,
THE REGISTRAR
NEPRA
Government of Pakistan
Islamabad

Subject: Communication in connection with the Motion for Leave for Review dated December 12, 2019 (the "Communication").

Dear Sir,

This is with reference to the Motion for Leave for Review filed on 12th December 2019 (the "Motion for Leave for Review ") against the determination of National Electric Power Regulatory Authority ("NEPRA") titled "Decision of the Authority in the matter of Engro Powergen Qadirpur Limited ("EPQL") Tariff Adjustments on Mixed Fuel Operations at Commercial Operations Date – [Case No. NEPRA/TRF-72/EPQL-2007]", bearing reference No. NEPRA/TRF-72/EPQL-2007/16166-16168, dated December 10, 2014.

EPQL would like to submit additional facts and information pertaining to our discussions regarding EPQL Gas Depletion Mitigation Plan with stakeholders that have transpired since submission of Motion for Leave for Review. This Communication shall be deemed to be an integral part of the Motion for Leave for Review and should be read with the same.

We thank you for your consideration and remain available for any questions.

Best Regards,

Shahab Qader Khan
Chief Executive Officer,
Engro Powergen Qadirpur Limited

REGISTRAR Dy No: 3421 Dated: 25-02-20

Senior Advisor Tariff-I Dy No: 1826 Date: 26-2-20

engroenergy.com
engro.corporation
EngroCorp
engro-corp
engrocorporation
EngroCorp

16th Floor, The Harbor Front Building, U 00 92 (21) 111-211-211
HC#3, Marine Drive, Block 4, Clifton, T 00 92 (21) 35297875-84
Karachi-75600, Pakistan F 00 92 (21) 35293665

engro powergen qadirpur

EXTRACT OF THE MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF ENGRO POWERGEN QADIRPUR LIMITED HELD ON 22ND NOVEMBER, 2019

BOARD RESOLUTIONS:

The following resolutions were discussed in detail by the Board and approved unanimously:

"**RESOLVED THAT,** ENGRO POWERGEN QADIRPUR LIMITED, a company incorporated under the laws of Pakistan with its registered office located at 16TH FLOOR, THE HARBOR FRONT BUILDING, HC-3, MARINE DRIVE, BLOCK 4, CLIFTON (the "**Company**"), be and is hereby authorized, to file tariff petition, unconditionally accept any notified upfront tariff or to file review petition and ancillary applications for any announced upfront or determined tariff issued by National Electric Power Regulatory Authority (NEPRA) in respect of its 217.3 MW Dual Fuel based Power Plant to be located at Qadirpur, Sindh (the "**Project**"), and in relation thereto enter into and execute all required documents, make all filings and pay all applicable fees, in each case, of any nature whatsoever as required."

"**FURTHER RESOLVED THAT** Mr. Shahab Qader Khan, Chief Executive Officer of the Company, be and is hereby authorized to sign all documents including tariff petitions, review petitions if any and file unconditional acceptance of upfront tariff determination, pay all filing fees, appear before NEPRA and provide any information required by NEPRA in respect of the Project, and do all acts and things necessary, processing, completion and finalization of the aforementioned petition."

"**AND FURTHER RESOLVED THAT** Mr. Shahab Qader Khan, Chief Executive Officer, be and is hereby authorized to delegate all or any of the above powers in respect of the foregoing to any other officials of the Company as deemed appropriate."

FOR AND ON BEHALF OF
ENGRO POWERGEN QADIRPUR LIMITED

SAMEEN ASAD
COMPANY SECRETARY

R363572

100
Rupees

۱۰۰
روپیہ

HAHNAWAZ STAMP VENDOR
Licence # 122
Shop No: ... Falak Corporate City,
alpur Road, ... Market, Karachi

NO. .... DATE ....
UED TO WITH ADDRESS: MUHAMMAD NAEEM
ROUGH WITH ADDRESS: Advocate HC 326
RPOSE ....
UE RS .... ATTACHED ....
P VENDOR'S SIGNATURE ....
NOT USE DIVORCES & WILL PURPOSE

04 FEB 2020

RUPEES

Muhammad Naeem ... Advocate ... KARACHI PAKISTAN

BEFORE
THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

AFFIDAVIT

AFFIDAVIT of SHAHAB QADER, **CHIEF EXECUTIVE OFFICER** and authorized representative of ENGRO POWERGEN QADIRPUR LIMITED.

I, the above-named Deponent, do hereby solemnly affirm and declare that:-

1. I am the Chief Executive Officer of Engro Powergen Qadirpur Limited, a company incorporated under the laws of Pakistan with its registered office located at 16th Floor, Harbor Front Building, HC-3, Marine Drive, Block 4, Clifton, Karachi, Pakistan.

2. The contents of the accompanying Communication, by the full strength of the Authority under Rule 16(6) of the Tariff Standards and Procedure Rules, 1998, read with the provisions of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997) and the rules and regulations made thereunder, including all supporting documents are true and correct to the best of my knowledge and belief, and nothing material or relevant thereto has been concealed or withheld therefrom.

3. I also affirm that all further documentation and information to be provided by me in connection with the aforesaid motion for leave for review shall be true and correct to the best of my knowledge and belief.

Shahab Qader
DEPONENT

VERIFICATION

It is hereby verified on solemn affirmation at Karachi on 20th February 2020, that the contents of the above Affidavit are true and correct to the best of ...

1. DETAILS OF THE PETITIONER

NAME AND ADDRESS

NAME:	Engro Powergen Qadirpur Limited
ADDRESS:	16th Floor, Harbor Front Building, HC-3, Marine Drive, Block 4, Clifton, Karachi.
PHONE #:	021-35297875-84
FAX #:	021-35293665

AUTHORIZED REPRESENTATIVE OF ENGRO POWERGEN QADIRPUR LIMITED

NAME:	SHAHAB QADER KHAN
DESIGNATION:	CHIEF EXECUTIVE OFFICER
PHONE #:	021-35297875 (EXT. 4102)

2. ADDITIONAL INFORMATION

I. Engro Powergen Qadirpur Limited ("EPQL") submitted the Gas Depletion Mitigation Plan to Private Power and Infrastructure Board ("PPIB") (with copy to NEPRA and CPPA-G) on 18th October 2019 and held discussions with stakeholders on 19th November 2019 (Minutes of the Meeting issued on 4th December 2019 a copy of which was shared with NEPRA by PPIB). During the stakeholder meeting RLNG was identified as a viable alternate fuel under the Gas Depletion Mitigation Option and EPQL was advised to discuss modalities for RLNG supply with SNGPL and work out details including dispatch and financial analysis of operation on RLNG with CPPA-G.

EPQL has held discussions with SNGPL for provision of additional gas from Qadirpur at RLNG rates (swap gas operation); this proposal would have deferred incurring of CAPEX for RLNG pipeline and plant conversion for next few years. SNGPL has however expressed technical constraint to supply any indigenous gas in swapping arrangement and proposed that RLNG from the main network be taken by laying a dedicated 3.5KM pipeline and by EPQL incurring some CAPEX in its Gas Turbine since the incoming RLNG gas is of high CV (1050 BTU/SCF – 1170 BTU/SCF).

EPQL has, in consultation with CPPA-G, analysed the dispatch scenario for EPQL plant on RLNG. The analysis of dispatch simulations indicates that probability of EPQL plant getting dispatch on RLNG in next four-five years is minimal; this is because of addition of must run plants and availability of cheaper thermal plants on imported and local coal. Analysis is included in Annexure-A.

II. Referring to Paragraph 78 III (iv) of the Determination by the Authority on 19th July 2007 reference NEPRA/R/TRF/-72/EEPL-2007/3062-64 (the "Original Determination"), the Authority has permitted the company to comingle HSD to meet the shortfall of Permeate till

the point that the fuel cost component does not exceed the prevailing RFO rate (the "Depletion Point"). The order is reproduced below:

> *"(iv) During gas reservoir depletion phase that shall be established through the documentary evidence to be provided by the power producer, the shortfall in available gas will be met by comingling HSD fuel. In this case the maximum fuel cost component per kWh will not exceed the prevalent average fuel cost component per kWh of RFO (HSFO) based power plants. The composite applicable fuel cost component (permeate gas - HSD) per kWh will be on actual mix of fuel calculated in accordance with mechanism given in reference tariff table III. This arrangement will be applicable till such time the composite fuel rate per Kwh does not exceed the prevalent average fuel cost component of RFO (HSFO) based power plants."*

The Authority further on 10th December 2014 through determination TRF-72/EPQL-2007/16166-16168 ("Mixed Mode Determination") defined the Depletion Point as the latest notified fuel cost component of Attock Gen Limited on RFO (the "AGL Depletion Point"). It is pertinent to mention that as per the Original Determination the sole purpose of defining the Depletion Point and subsequent the AGL Depletion Point was that upon reaching such a point EPQL would either convert the plant to RFO or to any other viable fuel which the Authority permits. Such decision is recorded in Paragraph 78 III (v) of the Original Decision which is produced below:

> *"(v) At any time during the reservoir depletion phase , if there is sufficient cause shown by the power producer supported with concrete evidence to the fact that it is commercially no longer viable for EEPL to continue with existing tariff arrangement as given in para (iv) above and therefore , it considers modification in the existing facility, the company in that case will seek approval of the Authority for any additional investment or change of fuel for the proposed modification"*

In addition to the Original Determination and the Mixed Mode Determination, Section 5.7 of the Implementation Agreement signed between EPQL and GoP dated 29th October 2007; provides coverages and mechanism for converting the plant to an alternate fuel when the AGL Depletion Point reaches.

RELIEF AND DETERMINATION SOUGHT:

Considering the above-mentioned facts in Section I and II , EPQL is of the view that it is not prudent to incur CAPEX at this stage for converting the plant to operate on RLNG since dispatch on RLNG based on current fuel structure is unlikely and additional CAPEX will further burden the consumer. Hence, the plant should continue operating on Mixed Mode (Permeate gas and HSD) with permeate given priority in dispatch.

We further request that a revised AGL Depletion Point be re-defined to a point when Permeate gas availability reduces to a level that it is not technically possible to operate the plant on Permeate gas alone; this event is projected to occur in 2024 / 2025 (Permeate Gas projected profile included as Annexure-B). This will also allow EPQL more time to continue searching for alternative and cheaper sources of fuel as a Gas Depletion Mitigation Option.

FOR AND BEHALF OF

ENGRO POWERGEN QADIRPUR LIMITED

.....

Shahab Qader
Chief Executive Officer
Engro Powergen Qadirpur Limited

ANNEXURE A

RLNG Dispatch Analysis

EPQL's tariff on RLNG

Table 1: EPQL's estimated tariff on RLNG

Fuel Cost Component on Permeate (Rs. /kwh)	Fuel Price (Rs. / mmbtu) including GIDC	RLNG Price* ($/mmbtu)	Exchange Rate (Rs. / USD)	Fuel Cost Component on RLNG (Rs. /kwh)
7.6810	924	9.4245	155	12.14

*Provisional Price, SNGPL Transmission, for Jan 2020, OGRA

Power Demand

Power demand has been projected using growth rates from NTDC's Indicative Generation Capacity Expansion Plan (IGCEP) 2018-40, under the low, normal and high growth scenarios. Energy purchase data by CPPA-G for 2019 (~124 Twh) has been used as base year.

Power Supply

Capacities of up to 10GW are expected to be added in the medium term. Projects that have reached an advanced stage of development have been included in our supply projections. These include committed projects as per IGCEP as well as wind projects for which PPAs have been signed recently. The table below presents technology wise capacity additions:

Table 2: New Capacity Additions

CAPACITY (MW)	2020	2021	2022	2023	2024
HYDRO	283	720	122	870	
WIND		200	450		
SOLAR		100			
BAGASSE		870			
NUCLEAR		1,100	1,100		
RLNG	1,243				
IMPORTED COAL				1,620	
THAR COAL			990	330	1,650

EPQL's dispatch on RLNG

Figure 1 presents the demand scenarios and the power supply available in the country to meet demand, which is more competitive as compared to EPQL on RLNG (assuming fuel prices as per Table 1 above). Must-run plants include power from hydel, renewables, bagasse, nuclear and imported power. The newly commissioned RLNG plants in Punjab, Bhikki, Balloki and Haveli Bahadur Shah, operate at significantly higher efficiency as compared to EPQL, while Thar and imported coal-based power projects are more competitive due to lower fuel prices.

Other projects include plants that currently rank above EPQL's RLNG Energy Purchase Price as per recent economic merit order dated 22nd January 2020. In real terms, merit order is expected to follow similar trend, given the following fuel price projections.

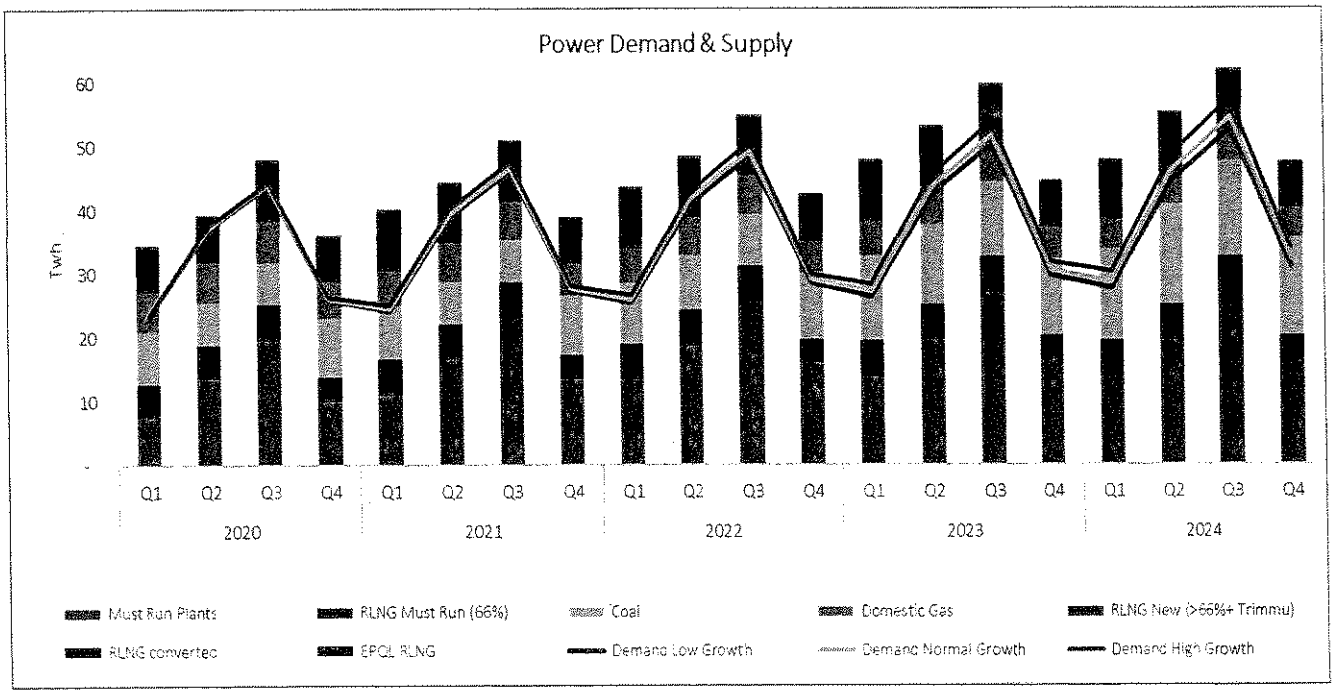
Table 3: Fuel Price Projections

	2020	2021	2022	2023	2024
Imported Coal Price[1]	62.9	71.3	75.4	75.4	76.5
LNG Price (USD/MMBTU)[2]	9.9	10.1	10.1	10.4	10.8
Brent (USD/barrel)[3]	73	74	74	76	79

[1]Richard's Bay FOB 6000kcal/kg from IHS
[2]LNG prices are linked to brent at historical slope 12.5%; terminal charges have been included
[3]Brent Crude oil projections from U.S. Energy Information Administration (EIA)

As shown in the figure below, sufficient capacity is under development to be able to fulfil power demand in the medium term and it seems unlikely that EPQL will receive dispatch on RLNG. This is evident that even on the assumption of High Growth Demand (as per IGCEP) the demand curve will not touch EPQL capacity on RNG (red marked section on Figure 1).

Figure 1: Power Demand and Supply Capability



ANNEXURE B

Permeate Gas Projected Profile corresponding to plant generation

Year	Permeate Gas (MMSFCD)	Plant Output[3] (MW)
2019-20[1]	37 – 45	166
2020-21	33 – 40	147
2021-22	29 – 35	129
2022-23[2]	31	114
2023-24	27	100
2024-25	23	85

[1]OGDCL's updated gas insufficiency notice dated April 17, 2019

[2]OGDCL's Production forecast of permeate gas dated August 27, 2018

[3]Based on max supply

EPQL's minimum continuous load on permeate gas: 40% (as per PPA) to plant generation