



**Registrar**

# **National Electric Power Regulatory Authority**

## **Islamic Republic of Pakistan**

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No. NEPRA/PAC-103/957-959  
January 23, 2015


**Subject: Approval of the Authority in the matter of Power Acquisition Contract filed by Lahore Electric Supply Company Ltd. (LESCO) for Purchase upto 3 MW from Brothers Sugar Mills Limited (BSML) under NEPRA Interim Power Procurement (Procedures and Standards) Regulations, 2005 [Case # PAC-103]**

Dear Sir,

Please find enclosed herewith the subject Approval of the Authority (07 pages) in Case No. NEPRA/PAC-103.

2. The Approval is being intimated to the Federal Government for the purpose of notification in the official gazette in accordance with the provisions of Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).
3. Please note that Order of the Authority at para 9 of the Approval needs to be notified in the official Gazette.

Enclosure: As above

  
23.01.15

( Syed Safeer Hussain )

Secretary  
Ministry of Water & Power  
'A' Block, Pak Secretariat  
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.



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National Electric Power Regulatory Authority  
(NEPRA)

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Approval of

Power Acquisition Contract filed by

Lahore Electric Supply Company (LESCO)

For Purchase upto 3 MW from Brother Sugar Mills Limited (BSML)

Under

Interim Power Procurement (Procedures & Standards) Regulations 2005

(NO: NEPRA/PAC-103)

Islamabad

January 23 , 2015

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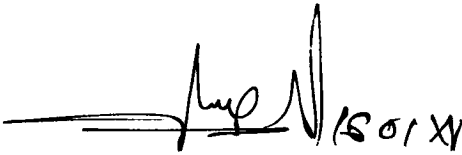
Approval of the Authority in the Matter of Power Acquisition Contract filed by Lahore Electric Supply Company (LESCO) for Purchase upto 3 MW from Brothers Sugar Mills Limited (BSML) under Interim Power Procurement (Procedures & Standards) Regulations 2005

(NO: NEPRA/PAC-103)

FILED BY

Lahore Electric Supply Company (LESCO), 22-A, Queens Road, Lahore

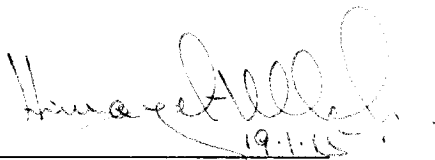
AUTHORITY



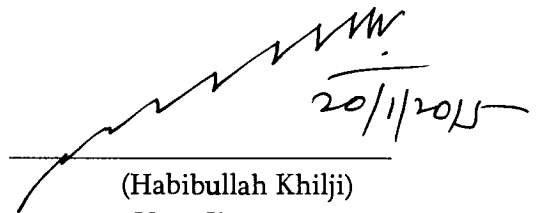
(Khawaja Muhammad Naeem)  
Member



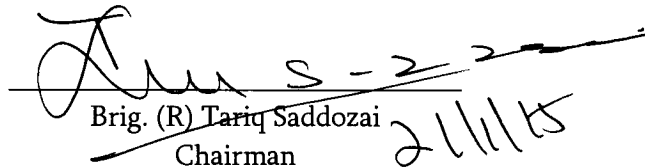
(Maj. Rtd. Haroon Rashid)  
Member



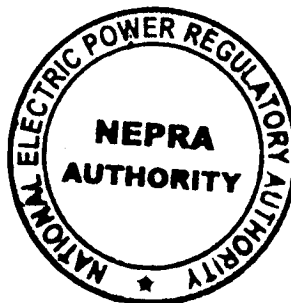
(Himayat Ullah Khan)  
Member

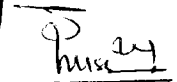


(Habibullah Khilji)  
Vice Chairman



Brig. (R) Tariq Saddozai  
Chairman



  
23.11.15

1. Based on the Power Acquisition Request of the Lahore Electric Supply Company Limited (LESCO) NEPRA in accordance with the Regulation 4(1) of the Interim Power Procurement (Procedure & Standards) Regulations – 2005 (hereinafter "IPPR-2005"), has granted permission to LESCO for negotiating Power Acquisition Contract for procurement of upto 3 MW with the Brother Sugar Mills Limited (hereinafter "BSML"). Subsequently, LESCO, vide letter dated 27.11.2013 submitted a request for approval of Power Acquisition Contract (PAC) under Regulation 5(1) of IPPR-2005 for procurement of upto 3 MW power from BSML. LESCO has, interalia, stated as below:

*"pursuant to approval of LESCO's Power Acquisition Request (PAR) for procurement of 3 MW bagasse based generation from M/s Brothers Sugar Mills Limited (BSML), please find enclosed the copies of proposed Power Acquisition Contracts (PAC), one initiated by LESCO and other by BSML..."*

2. LESCO along with the request submitted copies of following documents:
- NEPRA's letter dated 15.02.2013, whereby Authority's decision to grant permission to LESCO for negotiating power acquisition contract with BSML was granted.
  - The specifications and relevant details of power plant of BSML.
  - Filled-in Forms-I and III under Schedule-I of IPPR-2005.
  - LESCO's letter dated 04.03.2013 regarding Technical clearance for interconnection of BSML to LESCO.
  - Generation License of BSML (BSML was granted generation license No. SGC/49/2009 dated 27.07.2009 as CPP for its 13 MW (Gross) Bagasse based thermal power plant located at 02 Km Khudian Road, Chunian, District Kasur)
  - Statement Pursuant to Regulation 5(3) of IPPR, 2005.

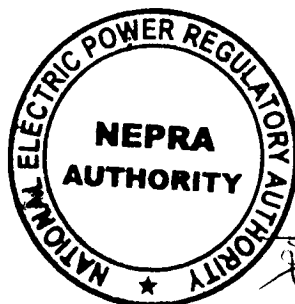
3. LESCO requested the Authority that:

*"The subject request may kindly be processed / approved under interim Power Procurement (Procedure & Standards) Regulations, 2005"*

4. As per the proposed PAC, the agreed tariff was fixed cost component of Rs. 1.53/kWh for the contracted term and fuel cost component of Rs. 3.62/kWh on reference gas price of Rs. 238.38/MMBTU. LESCO submitted two different draft PACs with the subject request, one initiated by LESCO while the other one initiated by BSML, instead of a single mutually agreed draft PAC between the two parties. The difference was cap on the gas price indexation and arrears of energy delivered.

5. Proceedings:

- 5.1 The subject request for approval of PAC was considered by the Authority on 3.12.2013 and it was admitted. During the meeting, the Authority decided to hold hearing in the matter on 5<sup>th</sup> December 2013 for which notices were issued to LESCO & BSML, vide NEPRA letter No. NEPRA/R/PAR-103/13337-38 dated 03.12.2013. Hearing in the matter was conducted on 5<sup>th</sup> December 2013 in NEPRA head office. The Authority having considered the submission of LESCO and BSML decided as under:



*"The Authority considered the working paper and decided to pend the request of the Lahore Electric Supply Company Limited (LESCO), for approval of the Power Acquisition Contract (PAC) for procurement of 3 MW bagasse based generation from M/s Brother Sugar Mills Limited (BSML), till the formulation / finalization of fuel price adjustment for the existing bagasse based co-generation facilities to make it consistent with the mechanism provided in the Upfront Tariff for bagasse based power projects."*

6. Prudency of Tariff:

- 6.1 In order to examine the prudency of rates being proposed in the PAC submitted by LESCO and the agreed terms and conditions a detailed exercise was carried out by the Authority.
- 6.2 The findings, analysis and decisions of the authority on other aspects / ingredients of the tariff, negotiated and agreed between LESCO & BSML is provided in the succeeding paragraphs.

7. Fuel Cost Component

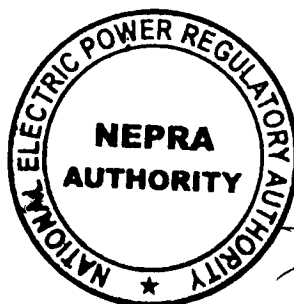
- 7.1 In the draft PAC of LESCO, the fuel cost component was indicated as Rs. 3.62/kWh with indexation mechanism with gas (the gas price was capped by LESCO on Rs. 460/MMBTU whereas the same was not accepted by BSML). Since the fuel cost component was the main concern of the LESCO and BSML therefore the Authority kept the case pending till the finalization of the proceedings with respect to linking of the fuel cost component indexation with the coal price mechanism as prescribed by the Authority in the Upfront Tariff for new bagasse based generation power plants vide its determination dated 29th May 2013 and subsequent corrigendum dated 28th August 2013. The Authority after consultative process of the stakeholders, decided that *"The fuel cost component of the existing bagasse based power plants operating as Captive Power Plants shall be indexed in accordance with the mechanism prescribed by the Authority for Upfront Tariff of co-generation power plants after adjusting the efficiency factor."*
- 7.2 Accordingly the Authority has decided to allow the same fuel cost component of Rs. 6.29/kWh allowed in the similar bagasse based captive power plants. The CIF coal price of US\$ 100.67/ton on which the bagasse price of Rs. 28,61/M.Ton has been calculated, shall be considered as floor / minimum price for the purpose of the Fuel Cost Component. The Authority may review the fuel pricing mechanism stipulated below in accordance with NEPRA Rules and after consultation with the affected parties if it is deemed that there is exorbitant/unreasonable increase in international coal prices. The fuel cost component adjustment mechanism is given hereunder:

Fuel cost component of tariff will be adjusted on account of variation in price of fuel (bagasse) on yearly basis in advance (w.e.f. 1st of October of each applicable year) as per the formula given hereunder.

$$FCC_{(Rev)} = FCC_{(Ref)} \times BFP_{(Rev)} / BFP_{(Ref)}$$

Where;

$$FCC_{(Rev)} = \text{Revised fuel cost component of tariff for the applicable year.}$$



FCC(Ref)	=	Reference fuel cost component of tariff of Rs. 6.29/kWh.
BFP(Rev)	=	Revised price of bagasse in Rs/ton as determined in accordance with mechanism set out below.
BFP(Ref)	=	Reference price of bagasse for the relevant year. Current reference price is Rs. 2861.12/ton
BFP(Rev)	=	CPCIF(Rev) x 6905/23810

Where;

$$\text{CPCIF(Rev)} = \{\text{CPFOB(Rev)} + \text{MF(Rev)} + \text{MI(Rev)}\} \times \text{ER (Rev)}$$

Where;

CPCIF(Rev)	=	Revised CIF price of coal in Rs/ton for the applicable year.
CPFOB (Rev)	=	Revised FOB price of coal expressed in US\$/ton based on monthly average of prices published in the Argus McCloskey's API4 index for relevant year.
MF(Rev)	=	Revised marine freight of coal per ton as worked out below.
MF(Rev)	=	US\$ 19.19 x BIX(Rev) / BIX(Ref)

Where;

BIX(Rev)	=	Revised monthly average of the daily Bunker Index price for 380-CST published by the Bunker Index for the relevant year.
BIX(Ref)	=	Reference monthly average of the daily Bunker Index price of 380-CST published by the Bunker Index. Current reference for the month of April 2013 is US\$ 641.8219/ton.
MI(Rev)	=	CPFOB(Rev) x 0.1%
ER(Rev)	=	Revised monthly average PKR/US\$ exchange rate for the relevant month.

The constants such as 6905, 23810 and US\$ 19.19 are fixed values representing LHV value of bagasse in btu/kg, LHV value of coal in btu/kg and fixed value of marine freight charges per ton of coal respectively.

- 7.3 LESCO is directed to incorporate modification in the draft PAC. The sale purchase has to be made in accordance with the Authority's approved PAC.

#### 8. Fixed Cost Component

LESCO and BSML have agreed Rs. 1.53/kWh as fixed cost component. The Authority in other similar cases considering the fixed cost component being reasonable allowed the same. The Authority therefore decided to allow the same fixed cost component requested in the instant case which will be fixed till contracted period.

#### 9. ORDER

- 9.1 For the foregoing reasons, the draft Power Acquisition Contract (PAC) submitted by LESCO for procurement of 3 MW power from BSML is hereby approved under Regulation 5 of NEPRA



Interim Power Procurement (Procedure & Standards) Regulations 2005 with the following terms and conditions. The procurement of power shall be on take and pay basis.

**Reference Tariff**

Description	Rs. / kWh
Fuel Cost Component	6.29
Fixed Cost Component	1.53
Total Generation Cost of delivered unit	7.82

- 9.2 The CIF coal price of US\$ 100.67/ton on which the bagasse price of Rs. 28,61/M.Ton has been calculated, shall be considered as floor / minimum price for the purpose of the Fuel Cost Component. The Authority may review the fuel pricing mechanism stipulated below in accordance with NEPRA Rules and after consultation with the affected parties if it is deemed that there is exorbitant/unreasonable increase in international coal prices. The fuel cost component adjustment mechanism is given hereunder:

Fuel cost component of tariff will be adjusted on account of variation in price of fuel (bagasse) on yearly basis in advance (w.e.f. 1st of October of each applicable year) as per the formula given hereunder.

$$FCC_{(Rev)} = FCC_{(Ref)} \times BFP_{(Rev)} / BFP_{(Ref)}$$

Where;

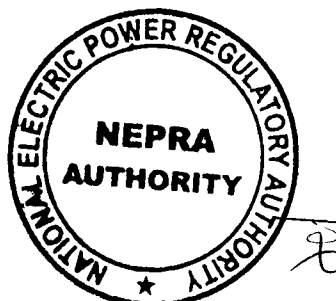
$$\begin{aligned} FCC_{(Rev)} &= \text{Revised fuel cost component of tariff for the applicable year.} \\ FCC_{(Ref)} &= \text{Reference fuel cost component of tariff of Rs. 6.29/kWh.} \\ BFP_{(Rev)} &= \text{Revised price of bagasse in Rs/ton as determined in accordance with mechanism set out below.} \\ BFP_{(Ref)} &= \text{Reference price of bagasse for the relevant year. Current reference price is Rs. 2861.12/ton} \\ BFP_{(Rev)} &= CPCIF_{(Rev)} \times 6905/23810 \end{aligned}$$

Where;

$$CPCIF_{(Rev)} = \{CPFOB_{(Rev)} + MF_{(Rev)} + MI_{(Rev)}\} \times ER_{(Rev)}$$

Where;

$$\begin{aligned} CPCIF_{(Rev)} &= \text{Revised CIF price of coal in Rs/ton for the applicable year.} \\ CPFOB_{(Rev)} &= \text{Revised FOB price of coal expressed in US$/ton based on monthly average of prices published in the Argus McCloskey's API4 index for the relevant year.} \end{aligned}$$





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MF<sub>(Rev)</sub> = Revised marine freight of coal per ton as worked out below.  
MF<sub>(Rev)</sub> =  $\text{US\$ } 19.19 \times \text{BIX}_{(\text{Rev})} / \text{BIX}_{(\text{Ref})}$

Where;

BIX<sub>(Rev)</sub> = Revised monthly average of the daily Bunker Index price for 380-CST published by the Bunker Index for the relevant year.

BIX<sub>(Ref)</sub> = Reference monthly average of the daily Bunker Index price of 380-CST published by the Bunker Index. Current reference for the month of April 2013 is US\$ 641.8219/ton.

MI<sub>(Rev)</sub> = CPFOB<sub>(Rev)</sub> x 0.1%

ER<sub>(Rev)</sub> = Revised monthly average PKR/US\$ exchange rate for the relevant month.

The constants such as 6905, 23810 and US\$ 19.19 are fixed values representing LHV value of bagasse in btu/kg, LHV value of coal in btu/kg and fixed value of marine freight charges per ton of coal respectively.

9.3 The above Order is to be notified in the official gazette in accordance with the provisions of Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997.

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