



Registrar

National Electric Power Regulatory Authority
Islamic Republic of Pakistan

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No.NEPRAPAR-136/15483-15485
October 22, 2015

Subject: **Decision of the Authority in the matter of Motion for Leave for Review against Decision of the Authority (dated 28.04.2015) on Power Acquisition Request (PAR) filed by K-Electric Ltd. (K-Electric) under NEPRA Interim Power Procurement (Procedures and Standards) Regulations, 2005 for Permission to Negotiate Power Acquisition Contract for purchase of 12.5 MW (Coal Fired) with Al-Abbas Sugar Mills Ltd. (AASML) [Case # NEPRA/PAR-136]**

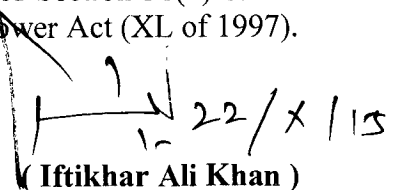
Dear Sir,

This is in continuation of this office letter No. NEPRA/PAR-136/6395-6397 dated April 28, 2015 whereby Decision of the Authority in the matter of Power Acquisition Request filed by K-Electric Ltd. under the NEPRA Interim Power Procurement (Procedure & Standards) Regulations, 2005 for permission to Negotiate Power Acquisition Contract for purchase of 12.5 MW (Coal Fired) from Al-Abbas Sugar Mills Ltd. was sent to the Federal Government for notification in the official Gazette.

2. Please find enclosed herewith the subject decision of the Authority (06 pages) in the matter of Motion for Leave for Review filed by K-Electric Ltd. (K-Electric) against Decision of the Authority dated 28.04.2015.

3. The Decision 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).

Enclosure: As above


(Iftikhar Ali Khan)

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.

DECISION OF THE AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW AGAINST DECISION OF THE AUTHORITY (dated 28.04.2015) ON POWER ACQUISITION REQUEST(PAR) FILED BY K-ELECTRIC LIMITED (K-ELECTRIC), UNDER INTERIM POWER PROCUREMENT REGULATIONS, 2005 (IPPR) FOR PERMISSION TO NEGOTIATE POWER ACQUISITION CONTRACT FOR PURCHASE OF 12.5 MW (COAL FIRED) WITH AL ABBAS SUGAR MILLS LTD (AASML).

1. The Authority issued its decision dated April 28, 2015, in the matter of Power Acquisition Request (PAR) filed by K-Electric Limited (K-Electric) for acquisition of 12.5 MW power (Coal fired) from Al Abbas Sugar Mills Limited (AASML), under NEPRA's Interim Power Procurement (Procedures & Standards) Regulations 2005 (hereafter referred to as the "Regulations), whereby the Authority along with the other terms and conditions approved the following tariff:

Tariff Table								
Component	FCC	Ash Removal	Var. O&M	Fixed O&M	Cost of W/C	Insurance	ROI	Total Tariff Rs. /kWh
Rate (Rs. / kWh)	7.2773	0.2200	0.2000	0.5932	0.1997	0.0403	0.9202	9.4506

2. The Authority in pursuance of the Regulation 4(1) of the Regulations, granted permission to K-Electric Limited for power acquisition from Al-Abbas Sugar Mills Limited on take and pay basis. The Authority also directed K-Electric to submit its proposed Power Acquisition Contract to be executed with AASML for approval of the Authority as required under the Regulations.

Motion for Leave for Review filed by AASML

3. AASML filed a Motion for leave for review vide letter no. AASML/KE-06/15 dated May 07, 2015 (hereafter referred to as the "Review Motion") against Authority's decision of April 28, 2015 on the following issues:
- I. Fuel Price
 - II. Return on Investment
 - III. Auxiliary Consumption
4. The Authority admitted the Review Motion on May 28, 2015 and decided to provide an opportunity of hearing to AASML. Notices of the hearing were issued to the concerned parties on July 26, 2015. AASML also submitted its written submissions vide letter no. AASML/KE-09/15 dated June 16, 2015.



5. The hearing was held on July 2, 2015 at NEPRA Tower Islamabad, wherein AASML reiterated its written submissions. A brief of submissions made by AASML is as under;

I. Fuel Price

6. AASML submitted that Authority has determined "All Other Costs" such as L/C Opening Charges, Insurance, Excise & Taxation, document Retirement Charges, Stevedoring, Weightment, Wharfage, KPT dues, Clearing & Forwarding Charges, Inland transportation, to be 10% of Free on Board (FoB) price, which is a subjective estimate of a regular cost item and has material impact on the final price of coal delivered at the storage.
7. AASML further submitted that at 19% efficiency for the given coal calorific value, the impact of price differential (i.e., Rs. per ton 9,975 less 9,648) is around Rs. 0.23 per kWh which is quite substantial.
8. AASML also submitted vide letter No. AASML/KE-09/15 dated June 16, 2015 that in the Authority's notified Coal upfront tariff dated October 17, 2014, the actual inland freight (Ft (inland)) in Rs/Ton is excluded from the other costs of 10%. It should be noted that although during peaks of coal price, AASML may gain because of fixed 10% cap on FoB; but AASML would rather request the Authority to allow an objective and fair pricing mechanism with respect to "All Other Costs" so that neither the power producer nor the final consumer suffers.
9. During the hearing AASML submitted that marine insurance on actual basis is around 0.25% of the FoB Price and all other costs will always be above than the 10% Cap allowed by the Authority. AASML mentioned that other costs including the cost of LC opening, Custom Duty, Port Expenses including wharfage, freight weightment, cess, clearing and forwarding charges, and coal transport to the site, are all paid on actual in Pak Rupees. Moreover, Import Duty on coal has also increased from 1% to 5% from July 2015.
10. AASML also submitted that LC opening charges are 0.65% of FoB, Custom Duty is 5% of FoB, Port Expenses 5.1% of FoB, Document Retirement Charges are 0.15% of FoB and Inland Transportation of Coal from Port to Dhabeji Site is about 6% of FoB Price, which in total are around 16.9% of FoB price.
11. AASML requested the Authority to allow all other costs as per actual based on the invoices and the documentary evidences.



12. The Authority considered the submissions of AASML and noted that in its decision dated April 28, 2015, the Authority has allowed "all other costs including the inland freight" @ 10% of the FoB price. The Authority also observed that in the upfront coal tariff "all other costs" have been allowed @ 10% of the FoB price and inland freight as per actual.
13. In view of above, the Authority has decided to allow AASML "all other costs @ 10% of FoB price" plus inland freight as per the following generic formula based on the assumptions as hereunder:
- Distance for transportation of Coal fuel from port to project site at Dhabeji has been taken as 70 km.
 - An average truck carries 10 ton of Coal.
 - The per litre fuel (Diesel) consumption of truck has been assumed to be 3 km.
 - Other truck costs (such as truck maintenance, driver salary, truck driver profit margin etc) are half of truck fuel cost.
 - Loading and unloading charges are also half of truck fuel cost.

Based on above assumptions, coal transportation cost would work out to be as under;

Coal transportation Cost = Diesel Cost for 70 km/ton + (truck other cost/ton + Loading & Unloading charges/ton).

Applying the above formula, the transportation cost of coal works out to be Rs. 315.14/ton as given hereunder;

Coal transportation cost = $(67.53/3*70)/10$ = Rs. 157.57/ton. (Fuel (HSD) price of Rs. 67.53/ litre is ex GST for the month of July, 2015)

Truck other cost = $Rs. 157.57/2$ = Rs. 78.78/ton

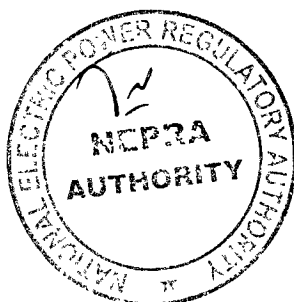
Loading & Unloading charges = $Rs. 157.57/2$ = Rs. 78.78/ton

Coal Transportation cost will be adjusted / revised with revised HSD price for the month immediately preceding the applicable month.

Truck other costs will be half of the coal transportation cost, whereas Loading & Unloading Charges will be indexed with CPI General.

II. Return on Investment

14. AASML submitted that the Authority in its decision allowed a Return on Investment (RoI) on the basis of Weighted average Cost of Capital (WACC) assuming a Debt to Equity ratio of 75:25 while allowing 24.5% Return on Equity (RoE) and 3 months KIBOR of 10.16%+300



basis points return on debt. The WACC is applied on the total assets cost of Rs. 550 million. Accordingly the RoI component has been determined to be Rs 0.9202/ kWh.

15. AASML also submitted that in its PAR, it had requested the Authority for Return on assets and not WACC basis and therefore did not include the depreciation on plant and machinery. The Authority has determined the RoI based on WACC formula, AASML has therefore requested to allow the depreciation component as well. As per AASML, calculation of the depreciation is as follows:

(Value of Plant and Machinery - residual value)/ Life of plant and machinery:

The value of plant and machinery is Rs. 550 million

- The residual value is 10%
- Life of 30 years
- Depreciation per annum Rs. 16.5 million
- Depreciation tariff Rs. 0.17 per kWh.

16. The Authority noted that in its decision dated April 28, 2015, AASML has been allowed RoI on the basis of Weighted average Cost of Capital (WACC) assuming a Debt to Equity ratio of 75:25 while allowing 24.5% RoE and 3 months KIBOR of 10.16%+300 basis points return on debt to be adjusted as per the prevailing quarterly KIBOR on the first day of supply of electricity to K-Electric. The WACC was assessed considering the total assets value of Rs. 550 million which resulted in RoI component of Rs 0.9202/ kWh. However, the Authority during the proceedings of the review motion noted that in other cases of Captive Power Plants (CPP) only a RoE component has been allowed to these CPPs and no debt servicing has been approved by the Authority. Accordingly, the Authority has decided to revise its earlier decision dated April 28, 2015 in terms of RoI allowed to AASML and has decided to allow only RoE @24.5% by assuming 25% of the total asset value of Rs. 550 million as equity. The revised RoE component works out to be Rs. 0.3529/kWh which is hereby allowed to AASML.

III. Auxiliary Consumption

17. AASML in its review petition submitted that the plant gross capacity based on the operating condition is 13.72 MW and the net electrical output delivered to K-Electric is 12.5 MW, thus the auxiliary consumption is 8.75%.

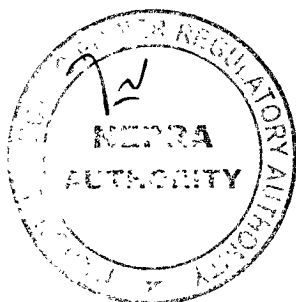


18. AASML also submitted that the Authority has allowed auxiliary consumption based on the value as per the Generation License i.e. gross capacity 14 MW, net capacity 13.10 MW, and auxiliary load 0.9MW (6.42%). The plant output is degraded from 14MW to 13.72 MW hence auxiliary consumption is higher than 0.9 MW. The actual auxiliary load with all Lighting & HVA loads of Dhabeji Factory during plant operation will always be higher than what it is assessed. Auxiliary consumption of 6.42% as assessed is unrealistic which has an impact on the calculation of all fixed cost component of assessed reference tariff. Auxiliary consumption of a coal fired power plant is always > 8% due to steam boiler design having FD fan, SA fan, and ID fan, coal conveyors etc which can be verified with the value of auxiliary consumption allowed by NEPRA in coal Up-front Tariff i.e. 9% for 220MW and 8% for other capacity.
19. AASML requested the Authority to consider the following and adjust the fixed cost component accordingly;

Description	Allowed (MW)
Gross Capacity	15
De-rated Capacity	13.72
Auxiliary Consumption	1.0976
Net Capacity	12.622
Annual Net Electrical Energy	93,983,412 kWh (At 85% availability)

20. The Authority in its earlier decision dated April 28, 2015 had allowed AASML an auxiliary consumption of 6.42% i.e. 0.88MW on the same basis as allowed in its Generation License.
21. While considering the de-rated capacity of 13.72 MW with licensed auxiliary consumption of 0.90 MW, the auxiliary consumption value comes out to be 6.55% and same is allowed to AASML. Increased auxiliary consumption will result in lesser available net capacity i.e. from 12.84 MW already allowed by the Authority vide decision dated April 28, 2015, to 12.82 MW and resultantly annual generation @ 85% will decrease from 95.600 GWH to 95.468 GWH.
22. In view of the forgoing, the revised reference tariff on unit delivered basis is as hereunder;

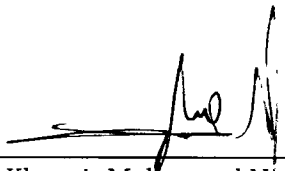
Tariff Table								
Component	FCC	Ash Disposal	Var. O&M	Fixed O&M	Cost of W/C	Insurance	RoI	Total Tariff Rs. /kWh
Rate (Rs. / kWh)	7.5150	0.2200	0.2000	0.5940	0.2062	0.0403	0.3529	9.1284

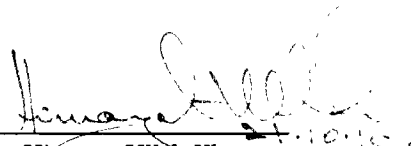


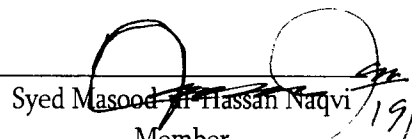
The aforementioned revised reference table shall be subjected to indexation / adjustment mechanism as already provided in the decision of the Authority dated April 28, 2015 in the matter of PAR file by K-Electric.

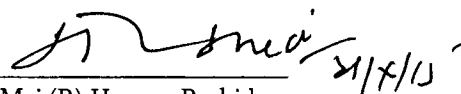
23. The above Decision is to be notified in the official gazette in accordance with the provisions of section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997.


AUTHORITY

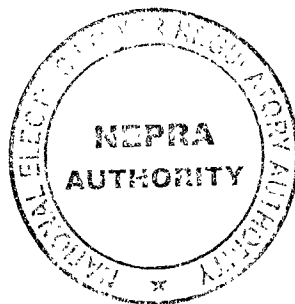

19/x/15
Khawaja Muhammad Naeem
Member

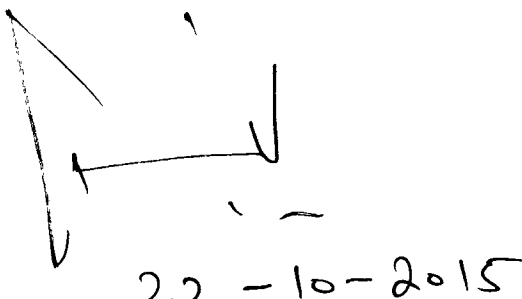

Himayat Ullah Khan
Member


19/x
Syed Masood Ali Hassan Naqvi
Member


21/x/15
Maj (R) Haroon Rashid
Vice Chairman


Brig (R) Tariq Saddozai
Chairman
22/x/15




22-10-2015