Presentation on Summary of Issues Raised by Different Stakeholders in Matter of Generation License Application of K-ENERGY (PVT) LIMITED for Units 3 and 4 of BQPS-I of K-Electric Limited

Presentation by

K-Energy (Pvt) Limited

PERTINENT ISSUES TO K-ENERGY (PVT) LIMITED

3. Whether KEPL has the capability and technical expertise to undertake the coal conversion project?

The application for the Generation License has been filed in accordance with the relevant rules and regulations, and all information required under the process has been supplied to NEPRA, which is readily available on the Authority's website for general public knowledge.

Since, KEPL has already indicated its capability and technical expertise to undertake the Project in its Generation License application in accordance with the requirements of the process, it is for the Authority to assess the same prior to grant of the Generation License.

Moreover, it is to be noted that the main sponsors of KEPL have sound industrial experience and will bring with them the coal expertise to Pakistan. Also, the general practice is to engage EPC contractors having established credentials for construction of a power plant or conversion of one to other fuels. Similarly, it is a standard practice to engage companies with O&M expertise for plant operations.

KEPL is established as an IPP structured in a manner typical of IPPs in Pakistan, and shall be performing all functions expected of an IPP in this regard.

4. Whether KEPL qualifies an Independent Power Producer (IPP)?

Various legal documents in Pakistan define IPP as “an Independent Power Producer established in private sector operating under a license issued by the Authority for the purpose of generation and sale of electric power, and governed by various Implementation Agreements executed between the Islamic Republic of Pakistan”

In light of the above and the fact that the proposed operational structure of KEPL resembles that of a typical IPP, KEPL may therefore be classified under the same category.

Moreover, this concern has already been thoroughly addressed and deliberated at the LPM stage, and does not need to be reconsidered at this stage.

5. Pakistan can face UN sanctions by allowing low efficiency coal projects as the same is in direct conflict with UN 2C regulations. Has the EIA been certified by a world class consultant like SGS / German-Lioyds etc. to check compliance with UN / EU / US laws?

UN 2C is a target to mitigate the increase in global temperature to below 2° Celsius and was recognized in the Copenhagen Accord – a document proposed for ratification during the 15th session of Conference of Parties (COP 15) to the United Nations Framework Convention on Climate Change (UNFCCC), held in 2009. The Copenhagen Accord is not legally binding, and the previous extension of UNFCCC, the Kyoto Protocol set binding emissions target for only 37 countries, not including Pakistan, and expired in 2012.

Furthermore, Pakistan, a developing country, is classified as a Non-Annexure I party to UNFCCC which recognizes the development needs of a developing country and therefore does not legally or otherwise binds the same with emission reduction targets. Therefore, all such acts for Non Annexure I countries are currently governed by the law of the land, and no threat of UN sanctions are faced on this account.

The EIA for the Project was conducted by Hagler Bailly and Environmental Management Consultants (EMC), and the same has been approved by Sindh Environmental Protection Agency (SEPA) by issuing a No Objection Certificate (NOC) for the implementation of the Project.

8. Has the Authority convinced itself that fuel conversion of the old units is more feasible as compared to installation of a new coal based power plant?

The Project Cost for the conversion Project is estimated at USD 1.37 Million per MW, as opposed to the new installation cost of USD 1.62 Million per MW (source – NEPRA Upfront Coal Tariff Determination). This enables savings of approximately USD 100 Million for a 420 MW plant.

Moreover, the only option available is conversion of the existing units, and the current transaction structure of implementation through KEPL has been proposed as it is the quickest means (two years against four for implementation of new plant) of ensuring cheaper energy generation at a lower cost of production. It is to be understood that the case at hand is either to continue generating expensive electricity using these units in their existing state or convert them to the cheaper source of coal fuel in line with National Power Policy 2013.

This framework also utilizes the existing assets to drive down the implementation costs, as the existing units would either have been idle or forced to generate electricity utilizing the more expensive RFO fuel.

It is further for the Authority to respond to this concern of the stakeholders.

10. Being located in the thickly populated area, has Environmental Protection Agency (EPA) Sindh given clearance for the operation of these units on coal?

The EIA was undertaken by Hagler Bailly and EMC, and was submitted to SEPA for assessment. SEPA approved EIA and subsequently issued an NOC for the implementation of the Project. Moreover, There is no population within the limits of Port Qasim, and the EIA found that there will be NO population impact.

11. What will be the impact on the workers of KEL, working on the Units 3 & 4 of BQPS-I of KEL, when these Units are leased out to KEPL?

The operational structure has been proposed in a manner where KEL will enter into an O&M Agreement with KEPL, and the same shall utilize the existing work force of Units 3 & 4 for their operation and maintenance.

13. What measures the Authority has taken to ensure that these Units remain operational and there is no physical progress for the proposed coal conversion, prior to approval of the Authority after observation of all Rules & Regulations?

There has been no physical progress in implementation of the Project, and the Authority may appease itself in the matter through verification measures that it deems fit. It is further for the Authority to respond on this subject.

NON-PERTINENT ISSUES TO K-ENERGY (PVT) LIMITED

1. Unit No 3 & 4 of BQPS-I were rehabilitated by using funding from GoP under Financial Improvement Plan (FIP) of KESC. What is the cost incurred on revamping / rehabilitation of these Units and why are they still de-rated?

Funding from GoP under the FIP were mainly utilized for improvements in Transmission and Distribution (T&D). A total expenditure of PKR 350.57 Million was made for rehabilitation of Units No 3 & 4 of BQPS-I.

Units	Particulars	PKR Million	Units		PKR Million
Unit 3	Replacement of Super Heater	160.30	Unit 4	Replacement of Super Heater	56.72
	Feed Water Heaters	4.46		Feed Water Heaters	28.71
	Circulating Water Pump	7.15		Replacement of Air Heater	17.78
	Debris Filter	16.38		Air Heater Elements	15.93
				Boiler Feed Pump	43.14
Total Expenditure on Unit 4		**188.29**	**Total Expenditure on Unit 3**		**162.28**

De-rating of these units is not the only concern at hand. The existing units in their current state shall be operated using RFO resulting in significantly higher cost of generation as compared to coal. Thus the Project shall enable generation of electricity, utilizing converted assets, at a higher capacity and significantly lower costs of production.

2. Why the Authority has granted “in-principle approval” of the communicated LPM of KEL excluding Units No 3 & 4 of BQPS-I, as there is no such provision in the relevant Regulations? Therefore, the same must be revoked by the Authority.

Sections 10(5)(a), 10(5)(c), and 10(5)(e) of the NEPRA Licensing (Application & Modification Procedure) Regulations 1999, particularly empowers the Authority to modify a license in accordance with a LPM, if in the opinion of the Authority the said modification, among others,

(a) does not adversely affect the performance by the licensee of its obligations;

(b) is or is likely to be beneficial to the consumers; and

(c) is reasonably necessary to ensure the continuous, safe, and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the licensee.

Units No 3 & 4 are not being excluded from the system, as KEL shall enter into a long term PPA with KEPL, thereby enabling generation of electricity at one third the cost compared to the units in their current state. Therefore, in our opinion the case of LPM of KEL was eligible for admission, and the approval granted in accordance with applicable rules and regulations is the discretion of Authority.

It is now further for the Authority to respond in this regard.

6. To achieve efficiency as required by UN (i.e. 39.5%) both the Steam Turbine and Boiler must be changed. KEPL plans to change the boiler alone, which means that efficiency will remain the same (i.e. 34%). Will it not cause (a) increased consumption of fuel per kWh, (b) CO_2 emissions violating UN 2C, and (c) increased cost per kWh?

In reiteration of the previous point, Pakistan, a developing country, is classified as a Non-Annexure I party to UNFCCC which recognizes the development needs of a developing country and therefore does not legally or otherwise binds the same with emission reduction targets for UN 2C. KEPL conducted a EIA for the Project and SEPA issued a NOC in approval of the same.

Moreover, in comparison to the units in their current state generating on RFO (due to unavailability of gas), the Project will utilize coal for power generation which is a significantly cheaper source of fuel in comparison to RFO (approximately one third the cost of RFO). Because of this, and the increase in efficiency coupled with higher capacity, the cost per kWh of electricity shall reduce considerably.

Also, the matter of generation cost (tariff) shall be the subject of tariff determination for the Project by the Authority, and is thus irrelevant at this stage.

7. Project Cost for the proposed work (i.e. changing the boiler only) may not exceed USD 50 Million, whereas KEPL has shown the same in excess of USD 400 Million.

KEPL has gone through a long and detailed bidding process, whereby bids were invited from several Chinese and other international companies. The bids were evaluated by KEL, KEPL and independent engineers. Thus the cost estimates are a result of a ICB process and the claim for USD 50 Million seems to be ignorant of basic engineering and power plant procurement.

The Project Cost and its impact on tariff shall be the subject of the tariff approval stage, and the Authority shall scrutinize all costs for justification prior to determination of tariff for the Project. Therefore, in our opinion, this is an irrelevant concern for approval of Generation License.

9. Why not KEL itself undertakes the coal conversion project as its Financial Health stands improved now?

This issue has already been discussed and deliberated in length during the KEL's LPM process and the argument was accepted by the Authority on the basis of which the LPM was approved.

12. The Sponsors of KEPL also have stakes in the coal mines located in Indonesia from where the coal will be imported for operating Unit 3 & 4 on coal. Is it a conflict of interest?

KEL is a vertically integrated utility and by bringing KEPL into the system shall enhance its supply chain to include fuel supply through long term contractual obligations.

Moreover, the CSA shall be an arm's length transaction, and the price of coal shall be set in accordance with international benchmarks, and not independently agreed between the two entities. Also, the same shall be subject to the Authority's scrutiny when determining the FCC charges at the tariff approval stage. Thus, the subject matter seems to be irrelevant at this time and the final price allowed to become part of the tariff shall be the discretion of the Authority at the relevant stage.

Further, the sponsors of KEPL shall be able to bring in extensive coal supply and handling experience, and the added advantage in the transaction in the form of long term coal supply security.

This issue has already been deliberated and discussed during the LPM process of KEL.

14. Whether the suggested Tariff is appropriate when compared to upfront Tariff determined by the Authority for other coal based power plants?

The case at hand is approval for grant of generation license to KEPL and this concern raised is the subject matter of tariff determination at the tariff approval stage by the Authority, when the issue will be subject to scrutiny and due diligence by the same. Therefore, this issue seems to be irrelevant at this forum.

15. What will be the quantum of loss borne by the consumers, if KEPL is allowed to burn coal in-efficiently in old power plants of low efficiency (i.e. 30% to 32%)?

It is to be understood that the comparison in hand is utilizing RFO as the source of fuel versus coal, therefore burning coal at the proposed efficiency as compared to the current state of the units shall allow for two-third saving in cost of production. This can be estimated at upwards of USD 700,000 per day for the end consumers.

16. What efforts have been made to ensure that prices of coal remain stable over the useful life of the power plant?

Coal is an internationally traded commodity, the price of which, similar to other such commodities are not fixed over a long term duration and fluctuate in accordance with the international market. The only factor that can be fixed is the security of the long-term supply through contractual obligations, which KEPL shall enter into to ensure the same.

THANK YOU