Response to Issues Framed For the Hearing in the Matter of Generation Licence Application of Gulf Powergen (Pvt.) Limited

Gulf Powergen (Private) Limited (GPPL)'s response to the issues raised is as follows:

Issue

(a). Presently there is idle Residual Furnace Oil (RFO) base capacity in the country. Is it not against the interest of consumers to inject more such generation which will result in more circular debt?

GPPL Response

GPPL, in its application for the grant of Generation Licence, has indicated various options for the operation of its plant, which, besides the proposed sale of the output to NTDC as a short term IPP pursuant to ECC decision dated 27th March, 2014, includes options for sale of the entire or a part of output to a bulk power consumer or to participate in the Competitive Trading Market as and when established by NEPRA/NTDC. The grant of Generation Licence to GPPL does not in any way involve any commitment for purchase of power by any public sector utility. In our opinion, this issue is not relevant in regard to processing of the application for the grant of Generation Licence by NEPRA. Nevertheless, GPPL makes the following submissions in this regard:

- Pakistan has been facing the worst electricity crisis of its history since the year 2007. The gap between power demand and supply has been widening over the years. Consequently, almost daily load-shedding for an average period of 8-10 hours is being currently carried out. Due to non-availability of RFO for various reasons including financial constraints, some of the RFO-based plants have not been operating at times resulting in additional load-shedding during those periods. The short-fall will, however, persist even if all the oil-fired plants are fully operated.
- According to NEPRA's 'State of Industry Report, 2013', the power deficit even for the very conservative growth rates will persist beyond 2017, the target given by the GOP for zero gap between power supply and demand. The power shortage has retarded the growth process in the country. The economy is suffering perpetual losses due to the unserved energy. The losses include costs of substitute arrangements i.e. UPS, generators, etc., consequential costs and the costs and lost profits of the third parties. These would be much higher than the cost of supply. This aspect needs to be considered while considering proposals for capacity additions.
- Thermal power plants with appropriate fuel mix will be required in Pakistan in future to meet peaking power needs and to serve as back-up for the hydropower plants during the low water months. Reciprocating Engine-based power plants have several advantages over the other types

of thermal plants. These are low cost, have reasonable thermal efficiency, can be quickly started/stopped, and are best suited for the peaking duty.

- GPPL plant was installed at Eminabad in the year 2010 pursuant to the approval by the GOP. Except for the Used Engines/Alternators, all equipment is new. Engines had previously completed between 23000 to 47000 operating hours. On completion, the plant was inspected and tested by the world-renowned testing and commissioning experts i.e. KEMA of Holland. The relevant copies of KEMA test reports are attached. Details regarding operating hours completed by each used engine are given in the application for the Generation Licence. This plant under the Generation Licence obtained by the Northern Power Generation Company has been operating successfully for about 23 months and supplying 62 MW power to the national grid. The Plant is in an excellent condition and can be put into operation within a short time. It is not a case of fresh injection of capacity. Instead it is a matter of utilization of the available capacity lying idle for the last about three years.

- The guaranteed net efficiency (LHV) of GPPL plant averaged over the contract period is **37.73%**. It also caters for the engine start-ups on HSD, heat rate degradation over time, partial load operations and oil leakages/wastage. This efficiency is better than those of several RFO-Fired Units of GENCO power plants operating in the national grid. The efficiency of some of the GENCO units on RFO operation in the national grid is given in the following table:

GENCO Units	**Efficiency (LHV)**
Guddu Units 3 & 4	31.7%
Jamshoro Units 1 to 4	Ranges from 29.6% to 33.3%
Mazaffargarh Units 1 to 6	Ranges from 29.7% to 33.8%
SPS Faisalabad Units 1, 2	25.1%

Since the GPPL plant is more efficient and reliable compared to some of the GENCOs' Units and **is located in the load centre**, its operation in the national power system is technically and commercially justified. The operation of GPPL plant which is cheaper than those already operating in the national grid, therefore, merits consideration and acceptance.

- The Merit Order for Power Generation Plants (PEPCO System) as on 16th June, 2013 given at pages 96 and 97 of NEPRA's 'State of Industry Report, 2013' ranks 76 Generators for economic despatch operation in the PEPCO system. Generators listed at Merit Order # 1 to 33 are Gas-fired, 34 to 37, 39, 40, 55 and 56 operate either on Gas or RFO while the Units against the other positions operate on RFO or HSD. It is considered worth-while to determine the ranking position of GPPL plant in the said

Merit Order. Based on the RFO price of Rs.69,434 per ton as of the same date (16th June, 2013), the fuel cost component for the GPPL plant works out as Rs.16.32/kWh and adding an estimated amount of Rs.1.10/kWh for the Variable O&M cost, the specific cost for the purpose of determining Merit Order comes to Rs.17.42/kWh. Assuming GPPL plant's operation in the PEPCO System, it would have been ranked between **Serial # 56 and 57** in the said Merit Order i.e. 16th position among 37 generators operating on oil. This is a much senior position among the competing generators operating on oil. This adequately justifies the operation of GPPL plant in the PEPCO system.

- If GOP/NEPRA offer a reasonable upfront tariff for purchase of power on take-and-pay basis and a reasonable dispatch criteria is defined, GPPL will be willing to sell 62 MW power on that basis without any capacity charge. This would mean that the Power Purchaser will pay only for the received energy to the extent it despatches the plant and takes the power. The Power Purchaser will not thus be obligated to buy power from GPPL if it does not fit in its **Economic Despatch Merit Order**.
- Sub-rule (3)(vi) of Rule 17 of NEPRA (Tariff Standards and Procedure) Rules, 1998 provides that the Authority shall have preference for competition rather than regulation and shall adopt policies and establish tariffs to that end. Accordingly, a Competitive Electricity Trading market was required to be developed and should have been in place by now. If that market is established, GPPL would then prefer to participate in it and compete with the other generators.
- As regards circular debt, it has to be resolved by the GOP.

Issue

(b). Gulf Powergen (Pvt.) Limited (GPPL) has settled its dues with the CPPA/NTDC and GENCO's etc.?

GPPL Response

Pursuant to the directions given by the Supreme Court of Pakistan, NAB had investigated the case and confirmed through its letter dated 24th July, 2012 (copy attached with GPPL's Application for Generation Licence) that the case against GRPPL now GPPL including its Sponsors, Directors, Co-Owners, Chairman, Chief Executive, legal heirs, representatives, successors-in-interest, or employees **stood closed**. Further, under the aegis of NAB, GRPPL has reconciled and settled accounts with Northern Power Generation Company Limited (NPGCL), pursuant to which, a Settlement Agreement was signed between NPGCL and GRPPL on 20th July, 2012 as witnessed by the representative of the NAB (copy attached with GPPL's Application for Generation Licence).

Issue

(c). Whether GPPL is in litigation with the Government of Pakistan or any other entity?

GPPL Response

GPPL is not in litigation with the GOP or any other entity.

Issue

(d). What is the status of payment of Rs.22 Billion loan taken by NTDC for onward disbursement to the RPP's?

GPPL Response

GPPL, has already reconciled and settled accounts as explained in response to item (b) above.

Issue

(e). Whether GENCO's have cleared their loans in the RPP scheme of things?

GPPL Response

GPPL is not in a position to comment on it.

Issue

(f). GPPL plant is based on open-cycle (with used machines) running on low efficiency. Will it be prudent to allow such low efficiency plants in the system?

GPPL Response

As stated above, the open cycle LHV efficiency of GPPL plant is **37.73%** which is quite reasonable and also better than many plants operating in the national grid. The conversion of the Reciprocating Engines-based plant to the combined cycle mode improves efficiency by about 5% (as against about 50% in the case of gas turbines) and takes about two years to complete (Heat Recovery System and Steam Turbine are especially designed and manufactured for the specific conditions of each plant). Further, the full benefit of combined cycle is only achieved if the plant is continuously operated at full load. Being a short-term arrangement and low efficiency gain, its conversion to combined cycle has not been considered viable particularly when it is intended to operate at varying loads on as needed basis.

Issue

(g). The plant equipment of GPPL was imported on temporary basis for a period of 36 months from the date of its import and was supposed to be repatriate after the said period. Whether the use of the equipment be in accordance to the SRO under which its import was allowed?

GPPL Response

The plant was imported for a period of five years in accordance with the then policy of the GOP. The plant is lying idle and its utilization will be in the

national interest. The period can be extended with the approval of the GOP if the plant is accepted for the national grid.

Issue

(h). Economic Coordination Committee of the Cabinet while approving the summary of Ministry of Water and Power directed Private Power and Infra structure Board (PPIB) to formulate a Policy for the use of RPPs. Has PPIB formulated such policy or otherwise?

GPPL Response

GPPL is not in a position to comment.