# Before the MAHARASHTRA ELECTRICITY REGULATORY COMMISSION World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400005 Tel. 022 22163964/65/69 Fax 22163976 Email: mercindia@merc.gov.in Website: www.mercindia.org.in/www.merc.gov.in

## Case No. 5 of 2017

#### Date: 28 February, 2017

### <u>Coram:</u> Shri. Azeez M. Khan, Member Shri. Deepak Lad, Member

Petition of Reliance Infrastructure Limited (Generation) (RInfra-G) and Reliance Infrastructure Limited – Distribution (RInfra-D) under Section 86 (1) (a), 86(1) (b) of EA2003 and Regulation 20.1 of MERC MYT Regulations, 2015 for approval of Power Purchase Arrangement between RInfra-G and RInfra-D.

Reliance Infrastructure Limited (Generation)	Petitioner 1
Reliance Infrastructure Limited (Distribution)	Petitioner 2

Maharashtra State Load Despatch Centre (MSLDC)	Impleaded Parties 1
State Transmission Utility (STU)	Impleaded Parties 2

Appearance

Representative for the Petitioner 1:	Shri. Rajendra Nandi (Rep.)
Representative for the Petitioner 2:	Shri.Ghanshyam Thakkar (Rep.) Shri. Abaji Naralkar (Rep.)
Representative for Impleaded Parties 1: Representative for Impleaded Parties 2:	Shri. E.T. Dhengle (Rep) Shri. S.B. Petkar (Rep.)
Authorised Consumer Representative:	Dr. Ashok Pendse, TBIA

#### DAILY ORDER

Representative of Petitioners made a detailed presentation on the cost of power of Dahanu Thermal Power Station (DTPS) of RInfra-G, comparative analysis of competitive bids elsewhere vis a vis RInfra-G tariff under Section 62 of the Electricity Act, 2003. The presentation also set out various advantages of entering into long term PPA by RInfra-D with RInfra-G for 500 MW for the period of 23 February, 2018 to 15 August, 2036.

Representative of Petitioners stated the following advantages of a PPA with RInfra-G:

- 1. DTPS is a highly efficient Plant
- 2. Only 30 % useful life is consumed as per RLA Study
- 3. Secured Fuel Linkage (FSA) with SECL
- 4. One of the lowest Fixed Costs as compared to new Plants, which may be beneficial for the Consumers of Mumbai in case of backing down of the Plants while operating Merit Order Despatch (MOD) due to additional renewable generation.
- 5. Major part of Mumbai islanding scheme
- 6. Low Transmission loss as the Plant is situated near the load centre.
- 7. Provision of VAR support for voltage stability

The Commission asked RInfra-G to provide the Capital Cost of DTPS at the time of CoD, and scheme wise capex incurred under R&M and other activities from CoD till December, 2016, which Representative of Petitioners stated would be submitted. The Commission asked whether DTPS will run upto 41 years (25 years useful life + additional term of PPA) to which Representative of RInfra-G stated that, as per the RLA study done of Unit 1, , the machines are in good condition and, with regular maintenance and overhaul, it will last upto 43 years from the CoD. The Commission further asked whether such long life can be sustained without any major Renovation and Modernisation, to which he replied that the Plant may sustain its operations upto 41 years by incurring the regular Capital Expenditure during the course of its operation, The Commission enquired regarding RLA study of Unit 2 which has not been done. Representative of RInfra-G stated that RLA study of Unit 2 will be undertaken within a year, and the result is expected to be similar as both Units are of the same make/technology and also had been maintained in a similar manner.

The Commission asked why, when the DTPS's fixed cost and/or tariff lower than the Competitive Bids also, RInfra as a business concern had not explored the opportunity of selling power at a higher rate by participating in bids elsewhere. RInfra-G should submit its response on this issue.

The Commission asked RInfra-D to make enquiry about the Capital Cost of other Power Plants, and also whether RInfra-G is prepared for a lower RoE as the assets have been depreciated during the useful life of the Plant.

The Commission asked the representative of MSLDC whether it has faced any problem when the DTPS was under outage and if it had resulted in any transmission constraint in the past. Representative of MSLDC stated that the system had catered to the load requirement even when DTPS was under outage, but there were instances of over loading on the Transmission lines.

Representative of STU stated that it has filed its Reply. The tie-line capacity available in the system as on today is 2011 MW, which will gradually improve to 2550 MW by the year 2018-19. The reactive power support to the grid, supplied by DTPS, can be made available from the MSETCL network, and also that the Power Factor is much maintained in the Mumbai Network.

The Commission asked whether STU has done any exercise on different scenarios about likely transmission capacity that could be made available considering different level of availability of embedded generation of TPC-G and RInfra-G and the time-lines.

Representative of STU stated that, without a Distribution Licensee having a Long Term or Medium PPA, it is difficult to have future planning and to enhance transmission capacity to eliminate constraints.

The Commission directed STU to furnish different realistic scenarios of the possible transmission capacity enhancement, which could cater to the load of Mumbai with lower levels of embedded power generation in Mumbai, and the time required for augmentation of such transmission capacity in such scenarios.

Dr. Ashok Pendse of Thane-Belapur Industries Association (TBIA, an authorised Consumer Representative) stated that the variable cost of DTPS is Rs.3.25/kWh and it is seeking PPA for 18 years. Maharashtra is in a Surplus Power situation and Mumbai Discoms have been taking considerable quantum of power from the State Grid in case of non-availability of Mumbai generation. Transmission capacity enhancement to cater to the Mumbai load is an ongoing process and will not continue over such long tenure of 18 years. He further stated that, as per the MOD, MSLDC is scheduling power upto the technical minimum of the Plant. Whether zero scheduling of any Plant is to be decided by MSLDC or the Generator/Licensee is a fundamental question.

The Commission observed that the provisions of the draft PPA would need to be looked into in detail and should be aligned with the existing PPA approved by the Commission.

The Commission directed as follows:

1. RInfra-D should submit its power procurement plan, including both medium term power procurement and long term power procurement. The Plan should consist of demand projections and supply arrangements envisaged to cater to such demand. The Plan should take into account considering Renewable Energy Technologies including as Solar roof top, Solar-Wind Hybrid and storage technologies likely to emerge on a larger scale in future, possible in future, and rising trajectory of RPO targets.

- 2. RInfra-D should submit the details of the opportunities it has explored for PPAs under Section 62 of the EA, 2003 with other Generators in Maharashtra and other parts of India along with an impact analysis. If it has not done so, the reasons may be given.
- 3. Similarly, RInfra-G should also indicate the opportunities explored for the sale of power from DTPS to other licensees under Section 62, and also for participating as competitive bids under Section 63.
- 4. RInfra-G should respond as to why the RoE should not be reduced as the assets have been depreciated during the major useful life of the plant and submit its say on the RoE to be given beyond the useful life of the Plant (25 years).
- 5. RInfra-D should comment as to why consideration of future purchase from DTPS should not be limited to Unit 1 since the RLA study has been conducted only for that unit.
- 6. STU is required to submit various scenarios based on non-availability of embedded Mumbai Generation (considering Unit-wise/Plant-wise non-availability of embedded generation of TPC-G and RInfra-G, or non-availability of partial or entire embedded generation); and also whether the islanding scheme is still, required for the operation of the Distribution Licensees in Mumbai considering N-2 Reliability in the system.
- 7. STU should also give its view on the VAR support required in case of unavailability of embedded Mumbai generation (considering Unit-wise/Plant-wise non-availability of embedded generation of TPC-G and RInfra-G, or non-availability of partial or entire embedded generation).
- 8. STU is also required to submit realistic scenarios regarding the transmission capacity enhancement which is possible in the short term, medium term and long term with timelines and likely capex required, in addition to the existing projects for augmentation of transmission capacity to cater to the Mumbai load. The scenarios should consider the likely generation coming up, stranded generation, and other possible generation source within and outside Maharashtra. While running the simulations, it should also consider the possible utilization of Transmission lines of hydro generation.

9. MSLDC to submit its say on the issue of transmission constraints faced by it during operation of the Grid when RInfra-G and TPC-G units were under outage, and with regards to smooth operation of the Grid in case the embedded generation in Mumbai is partially or fully un-available.

The Commission informed that Prayas has requested 10 days time to respond to the Petition. STU and MSLDC may submit their say within 10 days, and RInfra may respond to the issues raised above, and to the STU, MSLDC and Prayas submissions in 2 weeks thereafter.

Sd/-

(Deepak Lad) Member Sd/-

(Azeez M. Khan) Member