

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 9 of 2009

In the matter of
Petition of M/s Indo Rama Synthetics (India) Ltd for wrongful rejection
by MSLDC of the Petitioner's request to inject additional power.

Shri V.P. Raja, Chairman
Shri A. Velayutham, Member
Shri S. B. Kulkarni, Member

Indo Rama Synthetics (I) Ltd
A-3, MIDC Industrial area
Butibori
Nagpur 441122

..... Petitioner

Vs.

1. Maharashtra State Load Despatch Centre
Maharashtra State Electricity Transmission Co. Ltd
Thane-Belapur Road
P.O Airoli, Navi Mumbai 400708
2. Maharashtra State Electricity Distribution Co. Ltd
Plot No. G-9, Prakashgad
Bandra (East),
Mumbai 400 051

.... Respondents

ORDER

Dated: July 7, 2009

M/s Indo Rama Synthetics (I) Ltd. (IRSL) have submitted a Petition under affidavit before the Commission on 23.04.2009 under Section 86(1)(f) of the Electricity Act, 2003 ("EA 2003"), complaining against alleged wrongful rejection by the Maharashtra State Load Despatch Centre ("MSLDC") of the Petitioner's request to inject additional power. It has been submitted inter alia that the Petitioner, in addition to the injection of 47 MW of power to MSEDCL, was also issued a Standing Clearance by the MSLDC for injection of 2 MW for delivery to the Indian Energy Exchange over and above the supplies to the MSEDCL. Further, by an application the



Petitioners had requested MSLDC to issue a Standing Clearance for injection of an enhanced quantity of 4 MW for delivery to the IEX on Round The Clock (“RTC”) basis, in place of the existing Standing Clearance for 2 MW. However, the Respondent rejected the said application on the grounds that the Standing Clearance of 4 MW was not feasible because of alleged inadequate transformation capacity. The following are the main prayers of the Petitioners:

- i. *quash and set aside the letter dated 25.03.2009 issued by the Respondent;*
- ii. *direct the Respondent to permit the Petitioner to inject 51 MW (or any other quantum, in consonance with the standard IS:6600:1972 issued by the Bureau of Indian Standards) of power, under the day ahead scheduling procedure;*
- iii. *direct the Respondent to make good the loss suffered by the Petitioner.”*
- iv. *grant costs of this Petition*
- v. *grant such further and other reliefs as this Commission may deem fit in the facts and circumstances of the case.*

The facts of the case as stated in the Petition are as follows:

1. The Petitioner M/s Indo Rama Synthetics (I) Ltd. is a Textile manufacturing company with its factory situated at MIDC, Nagpur and having generating capacity in excess of its captive requirement. It entered into a PPA dated 25.02.2009 with MSEDCL, Respondent No.2 to deliver upto 47 MW of power RTC (Round The Clock) at the 220 KV interconnection point between IRSL and MSETCL at Butibori, Nagpur over the period 1.03.2009 upto to 30.06.2009. Under this PPA, IRSL has been pumping 47 MW of power to MSEDCL on and from 1.03.2009, barring exceptional circumstances. It has also obtained Standing Clearance from MSLDC for injection of 2 MW for delivery to Indian Energy Exchange (IEX), over and above the supplies to MSEDCL, and thus the total injection of power by IRSL is 49 MW.

2. By an application dated 23.03.2009 IRSL requested MSLDC to issue Standing Clearance (SC) of 4 MW for delivery to IEX on RTC basis, in place of the existing SC of 2 MW. At the enhanced level of injection, the total injection of power by IRSL would be 51 MW. In response MSLDC vide its letter dated 25.03.2009 rejected the application on the grounds of alleged “inadequate transformation capacity” since the rated capacity of the transformer is 50 MVA only. Subsequently, in order to satisfy MSLDC of adequate transformer capacity for injection of 51 MW IRSL by a letter dated 30.03.2009 enclosed a certificate issued by the manufacturer of the transformer saying that it is suitable for operation at 55 MVA and reiterated the request for injection of 51 MW of power. However, IRSL was surprised to see MSLDC’s standing clearance dated 31.03.2009 of only 2 MW for the IEX without considering the certificate issued by the transformer manufacturer, thereby effectively rejecting its application for enhanced SC of 4 MW. IRSL is aggrieved that MSLDC has failed or neglected to give SC for 4 MW without giving reasons for the rejection.

3. In the meanwhile IRSL got its transformation facilities inspected by a Chartered Engineer and also obtained a certificate dated 18.04.2009 from Power System Consultants, certifying that adequate safety measures are in place at the IRSL



grid transformer. In view of the above IRSL is aggrieved by MSLDC's letter of 25.03.2009 stating inadequate transformation capacity for issuing SC of 4 MW and also MSLDC's Standing Clearance of 31.03.2009 for only 2 MW on the following grounds:

- i. MSLDC has erred in ignoring the fact that IS:6600:1972 on "Guide for loading of oil-immersed Transformers" issued by Bureau Of Indian Standards permits overloading upto 150% depending on weighted ambient temperature and maintaining winding temperature within limits.
- ii. MSLDC has erred in arriving at conclusion of inadequate transformer capacity without considering the relevant factors such as IS:6600:1972 and the certificate issued by the manufacturer of the transformer stating that the transformer is capable of operating at 55 MVA (as against the name plate capacity of 50 MVA)
- iii. MSLDC has failed to appreciate that operation of a 50 MVA rated transformer at 55 MVA does not pose any risk to system security as alleged, since it is a globally accepted practice to overload a transformer so long as the operational constraints are within permissible limits and also the certificate issued by Power System Consultants to this effect.
- iv. MSLDC is expected to exercise power vested with it as per EA 2003 in issuing SC in a reasonable and unbiased manner consistent with the objective of promoting a free and fair trade in electricity. Therefore, MSLDC's rejection of IRSL's request is ex-facie illegal, arbitrary and unreasonable and is liable to be set aside.

4. A hearing was held in the matter on 14.05.2009. Shri Madhur Baya, Advocate appeared for IRSL, the Petitioner. He submitted that IRSL is having two generating units of 52.5 MW and 30 MW rated capacity, respectively, and the entire auxiliary consumption of 3.6% of the 52.5 MW unit can be taken care of by the surplus generation available from 30 MW unit. Hence IRSL is in a position to inject 51 MW power at the interconnection point with the MSETCL grid i.e, 47 MW to MSEDCL as per PPA and 4 MW to IEX. Therefore, IRSL requested MSLDC vide letter dated 23.03.2009 to enhance the existing Standing Clearance (SC) to supply RTC to IEX from 2 MW to 4 MW for which MSLDC replied in their letter of 25.03.2009, stating that the transformer capacity is 50 MVA, as stated by IRSL in their letter, continuous over loading of transformer was planned which was not desirable in view of system security and reliability. MSLDC had further stated that any unwarranted tripping of transformer would result in power supply interruption to the customer, which was having firm bi-lateral commitment with the generator.

5. Shri. P.B. Hote, C.E, MSLDC submitted that IRSL wants to generate more power than the declared installed capacity of their generator which is not permitted. With regard to MSLDC's objection for injection of 51 MW power through the 50 MVA rated capacity of transformer, it was submitted by MSLDC that as per Section 32(d) of the EA 2003, MSLDC is vested with the function to exercise supervision and control over the intra-State transmission system and as per Section 32(e), MSLDC is responsible for carrying out real time operations for grid control and



dispatch of electricity within the State through secure and economic operation of the State Grid in accordance with the grid standards and the State Grid Code.

6. During the hearing, the Commission observed that the present case did not raise a problem pertaining to extra generation than the declared installed generation capacity, but is related to transformation capacity. The Commission observed that IRSL has informed that the auxiliary consumption of 52.5 MW generator will be met from their second 30 MW generator. IRSL wants to inject 2 MW more than already approved 49 MW capacity totalling to 51 MW injection as against transformer rated capacity of 50 MVA. The Commission further observed that MSLDC was not inclined to permit the same on the ground that IRSL did not have adequate transformer capacity. The Commission directed that MSLDC should check the technical feasibility. Shri. Hote appearing on behalf of MSLDC sought time to file reply.

7. MSLDC filed in its reply / submission dated 19.05.2009 stating as follows:

- (i) IRSL is having a PPA with MSEDCL for 47 MW of power on RTC basis for a period 1-3-2009 to 30-6-2009. The installed capacity as informed by the Petitioner is 52.5 MW and auxiliary consumption @ 4% is 2.1 MW. The ex-bus availability as informed by IRSL is 49 MW. Accordingly, standing clearance for 2 MW i.e. after fulfilling the earlier contract with MSEDCL has been given to IRSL on 20th March 2009 upto 31st March 2009. Thus full capacity is considered as informed by the petitioner. IRSL vide its letter dated 23rd March 2009 asked for additional standing clearance of 2 MW stating that its generator can generate 53.5 MW against 52.5 MW and the auxiliary consumption reduced from (4% to 3.6%) 2.1 MW to 1.93 MW. MSLDC submitted that it shall not schedule power over and above the rated capacity. The transformation capacity available with IRSL is 50 MVA.
- (ii) As regards IRSL's request for injection of 51 MW power through 50 MVA Transformer at G<> T interface point, MSLDC submitted that keeping in view its functions under Section 32(2) of the EA 2003, MSLDC shall not permit over loading of any element in to InSTS grid causing threat to the State grid. The same has been conveyed to IRSL vide MSLDC's office letter dated 25.03.2009.
- (iii) The Petitioner in its Petition has given the reference of IS 6600-1972 (Guide for Loading of Oil Immersed Transformer) to determine the load carrying capacity of the transformer. As per IS 6600:1972 on page 10 example 3 is given for derivation of rated capacity of transformer. The illustration related to determine the load carrying capacity of the transformer of the Petitioner which as per table No.6 works out to be 46 MVA with ambient temperature of more than 32°C and 50 MVA with ambient temperature of 32°C. Thus, it can be seen that the load carrying capacity is inversely proportional to the rise in Weighted Ambient Temperature. Considering, the weighted ambient temperature in Vidarbha



Region will remain 32°C and PF = 0.98 as per the Petitioners claim, Open Access has been granted for 49 MW power.

- (iv) As regards granting open access to the Petitioner, installed capacity as defined in the MERC (Terms & Conditions of Tariff) Regulations, 2005, provide as under:

“Installed Capacity” means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals) as approved by the Commission from time to time;

Hence according to MSLDC, as per the above provision of the Tariff Regulations, the installed capacity and availability of the generator is considered as per name plate details provided by IRSL. Accordingly, MSLDC has given standing clearance for 2 MW only in addition to 47 MW contract with MSEDCL. In case MSLDC grants OA to the Petitioner for the power over and above the rated plant capacity, then for monitoring the generation visibility is required. MSLDC has already directed the Petitioner to establish the communication between generator and MSLDC as per State Grid Code. The Petitioner has yet not provided the communication. Hence, MSLDC cannot ask the generator to demonstrate the capacity as declared.

- (v) MSLDC also submitted that as per the existing UI billing arrangement, open access granted to the generator / distribution licensees has a commercial impact on the energy accounting carried out by MSLDC. As per ABT Order dated 17.05.2007 (Case No. 42 of 2006) and consensus of all utilities, UI will not be charged to the generator in intra State transactions. In case of partial intra & inter-State scheduling, the energy generated by the intra-State generator is allocated first to inter-State transactions, there after balance is allocated to the utility contracted within the State. This practice has been followed in IBSM and all utilities have agreed upon so far. In such scenario, if any generator is permitted to schedule power over and above rated capacity and the generator is not able to generate the power as per the schedule, generator will avail the benefit of higher cost in collective transactions and the intra-state utility having contract with that generator will suffer.
- (vi) In view of the above mentioned points regarding the ex-bus availability based on plant rated capacity and load carrying capacity of the transformer as per IS 6600:1972, MSLDC has granted open access to the Petitioner for 49 MW inclusive of firm contract of the Petitioner with MSEDCL for 47 MW.
- (vii) MSLDC further stated that it always works in an unbiased and impartial manner within the EA 2003 and regulations made there under.



8. Having heard the Petitioner and after considering the material placed on record, the Commission is of the view that the first issue that needs to be decided is as to whether the Commission has jurisdiction to decide this case. The stand that is taken by MSLDC is that MSLDC shall not permit over loading of any element of the InSTS grid causing threat of failure thereby. It may be noted that Section 33(4) of the EA 2003 provides as under:-

“If any dispute arises with reference to the quality of electricity or safe, secure and integrated operation of the State grid or in relation to any direction given under sub-section (1) , it shall be referred to the State Commission for decision:

....

[Emphasis added in bold]

Thus, as against MSLDC’s stand that MSLDC shall not permit over loading of any element in to InSTS grid causing threat to the State Grid, Section 33(4) would take within its ambit the scope of the present dispute. Also, in view of the functions of the MSLDC under Section 33 of the EA 2003 viz-a-viz the prayers made in the present petition, the Commission is of the view that the Commission has the jurisdiction to decide this present case.

9. The Commission observes from the contentions of the Petitioner, that the Petitioner has stated the following facts:

- a) That it has adequate generating capacity and electrical infrastructure available with him to transmit 51 MW power to the grid (Intra State Transmission system),
- b) The 50 MVA transformer installed by it to transmit the power to the Intra State Transmission system is certified by the manufacturer, to be suitable for 55 MVA;
- c) Power System Consultant has certified that the transformer has been provided with adequate protection systems such that any fault on the transformer will isolate the transformer without causing disturbance to the grid.

The Commission also observes that the Respondent (MSLDC) feels that the power supply infrastructure of the Petitioner, after satisfying his power supply obligations of 47 MW to MSEDCL, has not more than 2 MW extra capacity available in the existing transmission facility to supply power through the Power Exchange.

After examining the contentions raised by the Petitioner, the Commission is of the view that sufficient generating capacity is available with the petitioner for supplying power to MSEDCL as per contract and to the IEX as per the petition made and the issue is regarding the existence of adequate capacity of the Transmission facility.

The Commission is of the view that, “Transmission capacity” on the basis of which Open Access is granted by MSLDC, does not merely refers to the capacity of the



Transmission lines but the entire supportive infrastructure which would form the path for the power to be transmitted from the source to the destination.

Here the Commission would like to refer to the definition of “Transmission Lines” stipulated in Section 2(72) of “EA-2003” which states as follows:

Section 2(72):

“transmission lines” means all high pressure cables and overhead lines (not being an essential part of the distribution system of a licensee) transmitting electricity from a generating station to another generating station or a sub-station, together with any step-up and step-down transformers, switch-gear and other works necessary to and used for the control of such cables or overhead lines, and such buildings or part thereof as may be required to accommodate such transformers, switchgear and other works;

Based on the above, the Commission observes that in conformity of the function of the MSLDC as defined under Section 32 of the EA 2003, it is the duty of MSLDC to limit the Open Access permission to the capability of the complete infrastructure required to transmit the requisite amount of power to the Intra State Transmission System.

10. With reference to the contentions of the Petitioner, the Commission observes that the Petitioner has a transmission facility with a 50 MVA rated Transformer and he intends to operate the same at 10% overload condition either continuously or intermittently. In such case, such casual certifications without specific reference to basic back-up information such as temperature rise ranges, additional instrumentation, protection and monitoring devices/procedures in place for the entire set of equipment involved, would be required to be scrutinized and the evidence of having conformity with the same would certainly be required to consider the certification as “adequate”, as all these items are included in “transmission facility” of the Petitioner. Mere reference to “International accepted practice of overloading transformer” is not adequate to ensure safety of the critical transmission infrastructure and safe operations.

11. Based on the submission of MSLDC, the Commission notes that the MSLDC issues scheduling and dispatch instructions in **Mega Watts** and **not Mega Volt Ampere.**

- a) The Commission notes that as per the clause “Reactive Power Compensation” in the “Connection Agreement” dated 17th April 2007 entered into by the Petitioner with Maharashtra State Electricity Transmission Company Ltd. (MSETCL), it is agreed by both parties that the reactive power compensation and/or other facilities shall be so located to avoid need of exchange of Reactive Power to/from the Intra State Transmission system. The Commission notes from above that the Power factor is expected to be near around Unity. Which means that the 50 MVA rated transmission facility would be considered capable of transmitting 50 MW Power (Active Power).



b) The Commission is in agreement with the argument put forth by MSLDC that, MSLDC can issue schedule and dispatch instructions based only on the declared capacity of the plant, as the Commission feels that any other assumption would lead to chaotic operation of the Intra State Transmission system. The Declared capacity of the plant and transmission facilities is manifested by the name plate rating of the same, which should be the basis for all scheduling and dispatch instructions.

12. The Commission therefore directs that in conformity with the scheduling and Despatching procedures, MSLDC should continue to make the despatch schedule in Mega Watts, based on the declared capacity or nameplate rating of the plant, whichever is lower.

13. The Commission notes that as per clauses, “Communication Facilities” and “System Recording Instruments” of the above mentioned Connection agreement entered into by the Petitioner with MSETCL, the Petitioner is required to provide adequate monitoring and Real Time data communication from IRSL generating plant to ALD Center at Ambajhari. MSLDC in their submission have mentioned that such facilities have not yet been provided by the Petitioner. The Commission therefore directs the Petitioner to provide Real Time data communication from IRSL to ALD Center at Ambajari at the earliest.

In view of the above observations and necessary directions, the prayers raised by the Petitioner cannot be granted. Accordingly, the present case stands dismissed.

Sd/-
(S.B. Kulkarni)
Member

Sd/-
(A. Velayutham)
Member

Sd/-
(V.P. Raja)
Chairman



(P.B. Patil)
Secretary, MERC