

Appellate Tribunal for Electricity
(Appellate Jurisdiction)

APPEAL No. 297 of 2013

Dated: 23rd April , 2015

Present: Hon'ble Mr. Rakesh Nath, Technical Member
Hon'ble Mr. Justice Surendra Kumar, Judicial Member

In the matter of:

GMR Gujarat Solar Power Private Limited ...Appellant(s)
SKIP House, 25/1, Museum Road
Bangalore – 560 025, Karnataka

Versus

- 1. Gujarat Electricity Regulatory Commission** ...Respondent(s)
6th Floor, GIFT ONE,
Road 5C, Zone 5, GIFT City
Gandhinagar – 382 355, Gujarat
- 2. Gujarat Urja-Vikas Nigam Limited**
Sardar Patel Vidyut Bhawan
Race Course Circle, Vadodara – 390 007

Counsel for the Appellant (s) : **Mr. Amit Kapur**
Mr. Vishrov Mukherjee
Mr. Rohit Venkat

Counsel for the Respondent(s): **Ms. Suparna Srivastava,**
Ms. Nishtha sikroria and
Mr. S.R. Pandey (Rep.) for R-1

Mr. M.G. Ramachandran,
Mr. Anand K. Ganesan,
Ms. Swapna Seshadri,
Ms. Poorva Saigal and
Mr. P.J. Josni (rep.) for R-2

JUDGMENT

RAKESH NATH, TECHNICAL MEMBER

The main issue raised in this Appeal is **whether import of power by Solar Power Plant during the period when it is not generating power should be billed by the Distribution Licensee at the same tariff at which the Distribution Licensee purchases power form the Solar power plant?**

2. The Appellant has challenged the order dated 31.07.2013 passed by Gujarat Electricity Regulatory Commission (“State Commission”) deciding that the Solar Power Plant has to pay to the Distribution Licensee for the power imported during the period when it is not generating power at the same rate at which the Distribution Licensees purchases power from the Solar plant.
3. GMR Gujarat Solar Power Private Limited is the Appellant. The State Commission is the Respondent no.1. GUVNL which procures power for the State Distribution Licensees is the Respondent no.2.
4. The brief facts of the case are as under:-
 - a) On 06.01.2009, the Government of Gujarat announced a Solar Power Policy 2009 providing for certain incentives for setting up Solar power projects in the State of Gujarat.
 - b) The State Commission passed tariff order no. 2 of 2010 dated 29.01.2010, hereinafter referred to as “Solar Tariff Order”, for determination of tariff for procurement of power by the Distribution Licensees from solar power projects which provided

for certain incentives/benefits to the developers setting up solar power projects in the State.

- c) On 22.06.2010, Government of Gujarat announced an amendment to the Solar Power Policy 2009 to adopt the new solar tariff as determined by the State Commission by order dated 29.01.2010. The State Government invited various developers including the Appellant to consider investment to set up Solar power projects in the State. The Appellant submitted an application for setting up of a Solar PV power project of 25 MW capacity in August 2010. The State Commission vide letter dated 14.10.2010 allocated the said project to the Appellant. Thereafter, the Appellant entered into a Power Purchase Agreement (“PPA”) with GUVNL, the Respondent no.2 herein for supply of 25 MW of power.
- d) On 27.03.2012, GUVNL by an e-mail provided the invoice format to the Appellant according to which the Appellant was required to raise invoices on GUVNL. The invoice format stated that the power supplied by GUVNL to the Appellant was to be charged at Rs. 15 per unit and the same was to be deducted from the power supplied by the Appellant. The Appellant took up the matter with GUVNL to charge them at temporary HT power rate for import of power according to the solar tariff order dated 29.01.2010. However, GUNVL did not agree to do so. Accordingly the Appellant filed a petition before the State Commission under Section 86(1)(f) of the Electricity Act, 2003.
- e) On 31.07.2013, the impugned order was passed by the State Commission dismissing the Appellant’s petition seeking a

declaration that Appellant is only entitled to make payments for imported energy at the rate prescribed for a temporary HTP consumer.

5. The Appellant has made the following submissions:
 - a) The impugned order is contrary to the solar tariff order dated 29.01.2010 as also the provisions of the Power Purchase Agreement. By the impugned order the State Commission has unlawfully rewritten terms of executed PPA besides suo motu altered the solar tariff order qua terms and conditions of the tariff applicable to the Appellant in terms of the solar tariff order.
 - b) By the impugned order the State Commission has in effect reviewed the Solar tariff order as well as order passed by the State Commission approving the model PPA after the same had attained finality and the State Commission had become *functus officio* in that behalf. Such review is barred by the limitation in terms of Regulation 72 of the Conduct of Business Regulations.
 - c) The State Commission has acted without jurisdiction to effectively strike down provisions of the PPA which was approved by the State Commission prior to inviting and inducing investments in developing Solar Power Plants in the State. The State Commission has, therefore, violated the legitimate expectations of investors of Solar PV power projects of earning the assured tariff in terms of the solar tariff order. The Appellant is also prejudiced due to the State Commission holding the definition of 'Delivered Energy' in the PPA to be illegal and void.
 - d) The State Commission has erred in holding that the energy drawn by the Appellant during the time when the plant is not

operational i.e. during the night, is auxiliary power. Therefore, even if auxiliary consumption has to be adjusted on normative basis, the same can be done only during the day and not during the night when the power project is not in operation due to absence of sun light.

- e) The contention that the energy imported by a Solar plant ought to be charged at the same rate at which the Solar plant is injecting power into the grid was expressly rejected by the State Commission due to difference in cost of production of Solar power and conventional energy sources in the solar tariff order dated 29.01.2010. Thus, the impugned order is contrary to the solar tariff order.
 - f) The State Commission has also erred in holding that the Appellant had not applied to avail power supply at temporary HT rates and that a consumer has to sign Supply Agreement for supply of power by the Distribution Licensee which has not been done in the present case. It has been submitted that based on the Solar tariff order and Article 1.1 of the Power PPA, no separate application is required to be made by the Appellant to avail power as a temporary HT consumer.
6. The State Commission has made submissions supporting the findings in the impugned order.
7. GUVNL, the Respondent no.2, has made the following submissions in reply:-
- a) The State Commission had specifically upheld in the solar tariff order that there was no need to provide for auxiliary consumption with regard to Solar PV projects. With regard Solar thermal

projects, the State Commission fixed the auxiliary consumption at 10% . Thus, in both cases auxiliary consumption which includes consumption during non-generation hours was duly considered and factored in the tariff. But the State Commission consciously took the position that net CUF of 20% needs to be fixed for the Solar PV projects and no auxiliary consumption needs to be factored into the tariff. The Clauses of PPA dated 08.12.2012 entered into between the Appellant and the Respondent no.2 subsequent to the solar tariff order dated 29.01.2010 needs to be read consistent with the above position.

- c) In the cases of all generators the payment by the purchaser is made for the net electricity injected into the grid at the tariff fixed by the State Commission. If the principle propagated by the Appellant is applied to all generators it will lead to anomalous conclusions. The auxiliary consumptions even in the cases of conventional energy system is netted off. The Delivered Energy in the PPA is the energy actually fed and measured at the Delivery Point in a billing month.
- d) For tariff calculations the auxiliary consumption for wind generators is adjusted in the CUF as in the case of Solar PV. The same interpretation of netting of supply in case of auxiliary consumption has been applied in case of wind energy projects also. The HT temporary tariff is applied only for standby supply when the plant is under shutdown. The question of standby supply arises when the generators are under shutdown/breakdown for maintenances and repair when the

machine is not capable of generation even during hours of solar radiation. It does not arise in day to day situations when part of the day there is no generation due to lack of solar radiation. The tariff rate of temporary HT power consumption fixed by the State Commission in the retail supply tariff order dated 02.06.2013 and the formula thereon has no application to the daily drawl of electricity by the Appellant from the grid for its auxiliaries, transformers, lighting and airconditioning purposes. The above HT tariff rate would apply when GMR project is net importer of energy from the grid.

8. We have heard Shri Amit Kapur, Learned Counsel for the Appellant, Ms. Suparna Srivastava Learned Counsel for the State Commission and Mr. M.G. Ramachandran, Learned Counsel for the Respondent no.2. On the basis of the submissions made by the parties, the following questions would arise for our consideration.
 - (i) **Whether the State Commission has erred in holding that the Appellant was not entitled to be charged for power imported by its solar power plant during the period when the plant is not operating at the same tariff as applicable for temporary supply of HTP category?**
 - (ii) **Whether the State Commission has erred in deciding that the Appellant is liable to pay for the power imported during the period when its plant is not operating at a tariff which is applicable for sale of power by the Appellant to the Respondent no.2?**

- (iii) **Whether the State Commission has erred in not considering and giving effect to the terms of the PPA executed between the parties?**
 - (iv) **Whether the impugned order has been passed contrary to the generic solar tariff order passed by the State Commission on 29.01.2010?**
 - (v) **Whether the State Commission has erred in declaring the provisions of the PPA pertaining to “Delivered Energy” and imported energy and applicable tariff thereon to be illegal and *void ab initio*?**
9. All the above issues are interwoven and are being dealt with together.
10. Let us examine the findings of the State Commission in the impugned order. The same are summarized as under:
- a) While determining tariff for Solar Power Projects in order dated 29.01.2010, the Commission has categorically considered that auxiliary consumption for Solar PV Projects is negligible, whereas for Solar Thermal Projects auxiliary consumption has been taken as 10%. Accordingly, the tariff allowed under the said order provides that the auxiliary consumption in Solar PV Projects has to be met from the generation from the plant itself and only for the balance quantum of electricity injected into the grid, tariff as determined by the Commission is payable by the distribution licensee to the Solar Power Project.
 - b) Clause 6.2 of the tariff order is not relevant in the present case since this Clause is applicable for start-up power or stand-by supply. In case of a Solar PV project, no start-up power is required. Similarly stand-by supply is required by a plant under

complete shutdown for a long period. Day to day requirement of power for lighting, AC, control panel supply etc. is in the nature of auxiliary consumption and not stand-by supply.

c) Clause 1.1 of the PPA regarding “Delivered Energy” provides that the energy which is imported by the power plant be considered as the power supply at temporary HT tariff rate by the Distribution Licensee to the consumer. The said Clause is not valid and legal for the following reasons:

- (i) Prior to availing the power supply from the Distribution Licensee whether temporary or permanent, the consumer is required to apply in the prescribed application form and to pay necessary fee as per the Electricity Supply Code notified by the State Commission. Based on such application the Distribution Licensee carries out survey and recovers charges for infrastructure like transformer/lines, etc. utilized for creation of distribution/transmission supply network. There is no document on record to indicate that the petitioner has applied to avail power supply at temporary HT tariff of the Distribution Licensee.
- (ii) No supply Agreement signed between the parties has been produced.
- (iii) Temporary tariff under HTP category is applicable to consumer who is consuming electricity for a temporary period and not on a regular basis. In the present case the life of the power plant is 25 years and it requires electricity during some hours on daily basis throughout its life of 25 years. Hence power supply for auxiliary consumption

purpose is not temporary in nature. Therefore, the same does not qualify as a temporary power supply.

- d) The second part of definition of “Delivered Energy” as stated into the PPA is inconsistent with the decision of the State Commission in the solar tariff order dated 29.01.2010 and various tariff orders of the Commission. Therefore, the same is illegal and *void ab initio* and the same is not to be given effect. It is declared as *null and void*. Accordingly, the petitioner and the respondents are directed to amend the PPA suitably.

Thus, by giving above reasons, the State Commission dismissed the petition filed by the Appellant.

11. Let us examine the solar tariff order passed by the State Commission on 29.01.2010 under Section 61(h), 62(1)(a) and 86(1)(e) of the Act regarding determination of procurement of power by the Distribution Licensees and others from solar energy projects with a view to promote development of solar power in the State.

- a) Regarding auxiliary consumption, the State Commission held that in Solar PV project, auxiliary consumption is negligible. However, for Solar Thermal Projects the State Commission decided to provide for auxiliary consumption at 10%. The generic tariff for Solar PV power projects was determined considering the auxiliary consumption as nil. The State Commission determined the tariff for generation of electricity from Solar PV projects at Rs.15 per kWh for the initial 12 years starting from the date of commercial operation of the project and Rs. 5 per kWh from the 13th year to 25th year of operation.

- b) The State Commission in Para 6.2 of the tariff order also considered general issues related to the Solar projects.

“6.2 Start-up power/ Stand-by supply

The commission has in the draft order proposed that STU/Distribution Licensee shall provide start-up power for the solar generator under kWh to kWh adjustment basis.

The GUVNL has suggested that whenever start-up power is provided by distribution licensee under shutdown period of the solar project, the developer has to settle the energy account for drawal of power from the grid by paying the tariff rate of Solar Power as decided by the Commission to the distribution licensee to avoid imbalance in energy account settlement.

Commission’s Ruling

The Commission decides that the start-up/ stand-by supply provided by the distribution licensee to the Solar Power Project Developers should be charged as per the temporary charges provided for HTP category of the consumer in the tariff order by the Commission from time to time. The tariff of solar power generation and the pooled power purchase cost of the discoms are not on equal footing. There is large price difference in the two tariffs. Hence, the suggestion of GUVNL is not accepted by the Commission.”

12. It is clear from the above that the State Commission rejected the proposal of GUVNL that whenever start-up/stand-by supply is provided by the Distribution Licensee under shutdown period of the Solar project the developer has to settle the energy account for drawal of power from the grid by paying tariff rate of Solar power as decided by the State Commission to avoid imbalance of energy accounts settlements. The State Commission rejected the submission of GUVNL and decided that Solar project should be charged for start-up power/stand-by supply provided by the Distribution Licensee as per the temporary connection

charges provided for HTP category of consumers as decided in the State Commission's orders from time to time.

13. The Learned Counsel for the State Commission has made following submissions:
 - a) In a Solar PV plant generation takes place during day time. A Solar PV power plant meets its auxiliary consumption out of such energy generation and supplies the net electricity available after meeting its auxiliary consumption into the grid. During night time there is no energy generation at Solar PV plant and during this period the plant draws its auxiliary power consumption from the grid. A Solar PV plant unlike a Solar Thermal generating plant consumes minimal energy for running auxiliary viz. airconditioning in inverter and control room, cleaning water softening and pumping system, security lighting and general office lights and fans. The Commission has initially estimated auxiliary consumption of a PV power plant as negligible and in subsequent tariff order fixed auxiliary power consumption of 0.25% for such plants. Due to nature of operation, no start-up power is required by Solar PV plant.
 - b) In case of Solar Thermal Power Projects, the heat energy of the solar energy is converted into electrical energy by utilization of various heating equipments and auxiliaries associated with it to run the plant. In such a case, utilization of electrical energy available from the grid becomes necessary. Thus, in case of Solar Thermal Power Projects, the start-up power and stand-by power is required along with auxiliary power consumption. Thus, Clause 6.2 of the tariff order regarding start-up power and stand-by supply pertains to Solar thermal projects and not Solar PV projects. Thus, the Appellant cannot take benefit of Clause 6.2 of the tariff order.

- c) Clause 1.1 of the PPA regarding “Delivered Energy” was not in accordance with the Solar tariff order dated 29.01.2010 under which the PPA had been executed. The supply at temporary HTP rate was not applicable in case of Solar PV projects.
14. We have carefully examined the generic Solar tariff order of the State Commission dated 29.01.2010. In the tariff order the State Commission has decided the various operational and financial norms for Solar PV and Solar thermal power projects. While the auxiliary power consumption of 10% tariff has been allowed for Solar thermal power project in determining the tariff, the State Commission fixed the auxiliary consumption as zero for Solar PV project considering that in a Solar PV project auxiliary consumption is negligible.
15. When Solar PV power plant is generating power at the time when Solar radiation is available, the consumption of electricity for lighting and air-conditioning in office, control room and control panel, etc., is met out of power generated by the Solar PV plant and the power after meeting the station consumption is injected into the grid to be charged at the tariff determined by the State Commission in the solar tariff order dated 29.01.2010. When the Solar PV plant is not operating at night or at time when Solar radiation is not available the electricity required for lighting, air-conditioning and control panel, etc., is imported from the grid on the same transmission line on which power is evacuated from the Solar power project.
16. We find that the GUVNL during the proceedings in the tariff order dated 29.01.2010 suggested that whenever start-up/stand-by power is provided by the Distribution Licensee under shutdown period of the Solar project the developer has to settle the energy account for drawal

- of power from the grid at the same tariff rate as that of Solar power decided by the State Commission to avoid imbalance of energy settlements account. The State Commission rejected the proposal of GUVNL and decided that Solar power project developer should be charged at the temporary charges for HTP category consumer for start-up power/stand-by supply. Hence the suggestion of the GUVNL was not accepted by the State Commission. In the arguments that is being advanced by the Learned Counsel for the State Commission is that this provision pertaining to start-up power/stand-by supply is not applicable for Solar PV project and applicable only for Solar thermal project. Such distinction has not been made in the solar tariff order.
17. We find that in case of Solar thermal project the State Commission had already provided for auxiliary power consumption of 10% in determination of tariff i.e. the cost of auxiliary power consumption was passed on in the tariff. Too much emphasis is being raised on the use of word start-up power/stand-by supply. From the discussions under Para 6.2 of the tariff order it is very clear that GUVNL wanted setting off of the energy imported by Solar projects with the energy exported by the Solar projects so as to make payment for the net power supply by the Solar power project. This was not accepted by the State Commission as it found that there was much price difference in the two tariffs i.e. the tariff of Solar power generation and pooled power purchase cost of the Distribution Licensee. There is no force in the argument that the Clause 6.2 of the solar tariff order is restricted to only Solar Thermal Projects. Firstly, there is no distinction made in the paragraph 6.2 of the solar tariff order that provision of start-up/stand-by

- supply at temporary HTP tariff would be made available only to Solar Thermal Projects. Secondly, the State Commission had decided auxiliary power consumption of 10% for determination of tariff for Solar Thermal Power Projects while for Solar PV plants the auxiliary consumption was decided as nil. Therefore, there is no logic in allowing start-up/stand-by power at temporary HTP tariff only to Solar Thermal Project for which provision of auxiliary consumption of 10% was kept and not for Solar PV plants for which auxiliary power consumption was decided as zero for determination of tariff.
18. Admittedly, the Solar PV project does not require start-up supply to start generation. However, it requires stand-by supply for plant lighting, airconditioning of converter, control room and office, control panels, etc. during the period when Solar PV plant is not generating power when there is no sunlight. During the sunlight hours when Solar PV plant is generating power such loads are supplied by the power generated by Solar PV plant. Only when the Solar PV plant is not generating power, stand-by power is needed to be drawn from the grid for the above mentioned loads. Thus stand-by supply referred to in paragraph 6.2 of the solar power order dated 29.01.2010 pertains to supply to all solar plants including Solar PV plants for the period when Solar PV plant is not generating power. We do not find force in the argument of the respondents that the stand-by supply referred to in paragraph 6.2 is for Solar Thermal Power plant when the Solar Thermal Power plant is under shutdown and not for Solar PV plants under similar situation. Solar Thermal Power plant would require stand-by supply during the period of planned or forced outage for lighting, airconditioning of control room, offices, etc. Similarly Solar PV plants

- during outage and non-operation hours will also require stand-by supply for similar loads. Therefore, finding in paragraph 6.2 of solar tariff order was not intended to restrict the use of stand-by supply only to Solar Thermal Power Projects.
19. According to Shri Ramachandran, Learned Counsel for Respondent no.2, the State Commission in solar tariff order dated 29.01.2010 consciously took the position that the net CUF of 20% need to be fixed for Solar PV project and no auxiliary consumption needs to be factored into the tariff. Therefore, the Clauses of the PPA dated 08.12.2010 subsequent to the tariff order dated 29.01.2010 needs to be read consistent with the above position. We do not agree with the contention of Learned Counsel. In the solar tariff order dated 29.01.2010 the Commission has decided CUF of 20% for Solar PV and 25% for STP projects. There are gross CUFs. The auxiliary consumption has been considered as a separate component of tariff. For Solar PV, the State Commission decided to take auxiliary consumption nil due to negligible auxiliary consumption and for solar thermal project auxiliary consumption of 10% was considered.
 - 20 Comparison of Solar PV project with wind energy and other conventional projects by the Respondent no.2 is not correct. In case of conventional power, wind energy and biomass project the tariff is calculated after accounting for the auxiliary consumption which takes into account start-up power, whereas in a case of Solar PV project, auxiliary consumption has been taken as nil. Further, price of power from conventional and wind energy plants is comparable to or less than temporary HTP supply tariff. Therefore, netting out of energy is beneficial to wind/conventional power plants.

21. When the Solar Power Plant is not generating, for example during night hours, the energy drawn by the Solar PV plant is supplied by the Distribution Licensees from various conventional and non-conventional energy sources, the tariff of which is less than the tariff fixed for Solar PV power project (Rs. 15 per kWh). At such time the GUVNL/Distribution Licensees do not procure any power from Solar PV projects. Therefore, pricing the energy supplied to Solar PV projects during the shutdown of Solar PV plant at generic tariff of solar PV plants is not reasonable besides being contrary to the tariff order dated 29.01.2010.
22. If the State Commission had considered auxiliary consumption of Solar PV plant including the energy required for meeting the load of control room, air-conditioning, lighting, electrical penal etc. in the tariff then it was logical to charge same tariff for export of power Solar PV projects as well as for import of power and making payment for the net energy supplied to the Distribution Licensee after setting off the energy drawn by Solar PV project. That is not the case in the present Appeal as the State Commission has considered the auxiliary consumption of Solar PV plant as nil and allowed stand-by supply at temporary HTP tariff in the solar tariff order.
23. We have also been informed by the Appellant that the PPA entered into with the Distribution Licensees is as per the model PPA which was approved by the State Commission in the year 2009. This is not disputed by the Respondents. The PPA had a provision for charging energy supplied by the distribution companies to Solar PV project at temporary HTP supply rate. Therefore, the State Commission was not correct to declare that Clause regarding 'Delivered Energy' as provided

- for in the PPA as illegal. The PPA was based on the solar power tariff order dated 29.01.2010 of the State Commission and the model PPA approved by the State Commission. Therefore, the State Commission was wrong in declaring the Clause relating to 'Delivered Energy' as illegal and *void ab initio*.
24. We are also not in agreement with the State Commission that for import of energy the Appellant is required to apply in the prescribed application form and pay necessary connection fee and based on such application the Distribution Licensee would carry out survey and recover charges for infrastructure like transformer, lines etc. The State Commission itself has held in the tariff order that the power requirements of Solar PV project are negligible. However, power has to be drawn by the Solar PV project on the same lines on which power is evacuated by it into the grid. No separate connection or infrastructure is required for meeting the station requirement during the period when the Solar PV plant is non-operational. Only the amount to be charged for supply of stand-by power to Solar PV plant at temporary HTP rate is to be adjusted in the bill for sale of solar power by the Solar PV plant to GUVNL. The Contention that temporary power supply tariff cannot be made applicable to the Appellant as its requirement for the life time of the project is also not correct and contrary to the generic tariff order dated 29.01.2010. In the said tariff order the State Commission itself decided that the stand-by supply of power to Solar projects would be at the rate of temporary charges provided for HTP category of consumer. It does not mean that the energy drawn by the Solar PV project becomes a temporary consumer. It is only the application of the rate which was decided by the State Commission as there was no separate

- tariff category for such consumption by Solar power plant in the tariff order.
25. The impugned order has been passed contrary to the generic tariff order dated 29.01.2010 for solar projects. The PPA entered into between the Appellant and GUVNL was based on model PPA and the tariff order dated 29.01.2010. The State Commission has illegally interfered with the PPA which was in order and was in consonance with the solar tariff order dated 29.01.2010. The Solar PV plant has to be charged at temporary HTP category tariff for import of stand-by power supply as determined by the State Commission in retail supply tariff order from time to time in consonance with the solar tariff order dated 29.01.2010 and the amount has to be adjusted in the bill for supply of solar power by the Solar PV Power Plant to GUVNL.
26. In view of above the Appeal is allowed and the impugned order is set aside. The Appellant is entitled to be charged for import of power at temporary HTP category tariff as determined by the State Commission in retail supply tariff order from time to time and the amount is to be adjusted in the bill to be paid for supply of solar power by the Solar PV plant to GUVNL. No order as to costs.
27. Pronounced in the open court on this **23rd day of April, 2015.**

(Justice Surendra Kumar)
Judicial Member

(Rakesh Nath)
Technical Member

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REPORTABLE/NON-REPORTABLE
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