

KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

Present: Shri.K.J.Mathew Chairman
Shri. Mathew George Member
Shri.P.Parameswaran Member

March 25, 2011

In the matter of
Approval of Power Purchase Agreement between KSEB and M/s. MPS Steel
Castings Pvt. Ltd

Petition No. OP-35/2010 Dt 13/12/2010	Shri.M.Paramasivam, Managing Director, M/s. MPS Steel Castings Pvt Ltd, 476 Wise Park, Kanjikode, Palakkad Kerala State Electricity Board	Petitioner Respondent
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ORDER

1.0 Background

1.1 The petition has been filed by M/s. MPS Steel Castings Private Ltd for the approval of the Power Purchase Agreement (PPA) to be signed with the Kerala State Electricity Board on the Thermal Plant of the Company. Approval requested is for the modified PPA approved by KSEB. The plant is a 10 MW combined Co Generation thermal Plant in their Sponge Iron Factory at 476, Wise Park ,

Kanjikkode in Palghat District. The system is designed to generate electric power by utilizing flue gases generated during the process of sponge iron manufacture.

2.0 Prayer

Approval of Power Purchase Agreement between Kerala State Electricity Board and M/s. MPS Steel Castings Pvt. Ltd

3.0 Hearing of petition

3.1 In the hearing of the petition held on 02.02.2011 and 18.02.2011 at the Commission's Office at Vellayambalam, Trivandrum, the petitioner stated that they had set up a 10 MW Thermal Power Plant at their plant at 476 Wise Park, Kanjikkode in Palakkad District. The Power Plant is designed to generate electricity by burning coal inside a Rotary Kiln as well as in a Fluidized Bed Combustion Boiler. The Power Plant has a single turbine coupled with an Alternator and four boilers Three Waste Heat Recovery Boilers (WHRB), each boiler designed to generate 2 MW of power and one Fluidized Bed Combustion Boiler (FBC) designed for 4MW power. Thus the Capacity of the plant is 10 MW and construction of the power plant was started on 1-04-2005 and was synchronized with the State Grid on 13-09-2008 and on 19-02-2009 the power plant was declared to be under Commercial Operation. The energy was purchased by KSEB based on the understanding between the parties, enumerated in the B.O. (FM) No. 2015/2008/CP/Plg.III/MPS/2008 dated 14.8.2008 and the undertaking given by the petitioner to KSEB on 6.9.2008. The petitioner requested modifications in some clauses in the draft PPA furnished by KSEB.

3.1 Petitioner requested amendments on the following

1) Page1 Para 2 Line 2

For correcting their registered office address as 17/50, D.P.F Street, P.N.Palayam, Coimbatore-37.

2) Article 2.1.1: Term of agreement

The agreement has to be valid for a period of 5 years from the date of COD i.e. 19.2.2009.

3) Article 3.1(c) (Evacuation System) :

The generating company is located near the 220kV Kanjikode substation and 110kV DC Kanhjikode – Kollengode feeder is passing adjacent to the plant. For the past 18 months the power generated from the plant is being pumped through a tapline to one of the above feeders and the petitioner wanted to permit them to continue the same due to the following reasons:

- a. The 110 kV DC Kanjikode – Kollengode line is having adequate current carrying capacity (around 250 Amps), for pumping a low quantum of power i.e. 5.00 to 6.00 MW.
- b. Pumping the power is going on for the past 18 months and there are no disturbances to the grid.
- c. The construction cost for the dedicated feeder will be more than Rs.1.00 Crore. Since, the petitioner is in a huge financial crunch it is very difficult to bear the above cost in the present situation.
- d. There are many numbers of feeders like Kanjkode – Palakkad 110kV line, Madakkathara – Kanjikode 220 KV line Kanjikode – Kollengode 110kV DC line, 66kV line, three 22kV feeders and LT lines passing through the plant as well as in the road. So, constructing one more feeder among the above is difficult and will give lot of problems.
- e. The period for the PPA is only for 5 years, already one year is completed. So, for the remaining period the petitioner has requested to allow the existing system for evacuation.

4) Article 4.3. and 1.1.(af) (Guaranteed Capacity)

The total 10.00 MW power is generated through 3 nos. of waste heat recovery Boilers (3x2 mw=6) and one FBC boiler (4.00 MW). The power generation from the WHRB is not constant and is dependent upon the availability of the raw material like Iron ore and coal, its quality, characteristics and all other natural

phenomena. Now coal is imported from South Africa and Indonesia and Iron ore from Karnataka. Besides, there is an internal consumption of around 1.5 MW and one kiln (2.00MW) will be always under maintenance round the year. The major portion of power generation is dependent on the WHRB. Hence, guarantee for the supply of power cannot be assured. Whatever is generated the same will be transmitted/pumped to the grid after their own and auxiliary consumption. So the Guaranteed Capacity clause may be removed from the PPA.

5) Article 5.1 & 7.4 (Dispatch schedule)

Since the generating company is very small and its installed capacity is only 10MW, the supply of power cannot be guaranteed because its major portion is dependent on production of sponge iron. So, the dispatch schedules and procedures cannot be applied to the plant and they are only applicable for higher capacity plants. The request is to remove the above conditions and clauses.

6) Article 5.2 & 8.3 (Tariff for Infirm Energy):

The Tariff fixed for the company is only single part. The petitioner has been paid all the amount for the entire supply of energy as agreed by the respondent and as per the undertaking. Between the date of synchronization and COD the petitioner supplied more than 70.00 Lakhs units to the respondent and the same was produced through FBC by burning Coal. The generation cost during the period will be around Rs.4.00. So there is no possibility to sell the power as infirm energy as it will affect them seriously. Hence requested to remove all the clauses related to infirm energy.

7) Article 5.3(a,b&c) (other benefits):

Since the generating company is a combined thermal – co generation plant the benefits for the co generation plants are not applicable for the petitioner. The rate fixed for the sale of per unit is Rs.2.31 is comparatively very low and there will be loss of Rs. 1.20 per unit. Considering the fact, all the clauses in the 5.3 has to be removed. Moreover, the respondent shall bear all the taxes, surcharges, Central Excise duties and levies on account of sale of energy by the company.

8) Article 6.2 (Metering):

The Company has provided 0.2 Class, accuracy Energy Meters having the capability of measuring and recording all the parameters for both import and export energy and provision for down loading the data as advised by the Board. Moreover the tariff for the company is a Single part tariff so the ABT is not applicable for them and hence there is no need for providing SEM. So, the Commission may allow the existing metering system.

9) Article 8.5 & 9.4(Tariff, billing and payment)

Though, the petitioner is having diesel generator facility to restart the plant in case grid gets tripped occasionally, there may be some import from the KSEB grid and for that KSEB is charging demand charges from the respondent (75% of the 2000kV contract demand). The petitioner requested to issue the following direction to the respondent.

- (a) Exemption from collecting the demand charges
- (b) The import energy has to be adjusted with the export energy i.e. unit to unit adjustment

10) Article 8.6: (purchase of reactive energy by the Board)

The company has a single generator with 4 numbers of Boilers having various parameters. So, the generator further cannot be over loaded. Hence the supplying of reactive power may not be possible. The same clause may be removed.

11) Article 9.8 (Rebate for prompt payment):

The respondent is availing 2.5% Rebate amount for the payment of claims within the due date. This will further reduce their sale cost into Rs.2.25. Already the petitioner is in heavy loss on account of supply of the power and hence the same clause may be removed.

3.2 Objections of KSEB

Article 3.1(c) (Evacuation System) :

The respondent explained the necessity of constructing a dedicated feeder for the petitioner's co-generation plant to 220kV Kanjikkode Station. The utilization of 110kV Kanjikkode – Kollengode DC line is reduced due to the tapline arrangement of 10MW plant on this line. System stability at Kollengode substation is reduced by 50% by the reduction of tapping arrangements of the petitioner. Propriety of the distance relay scheme cannot be assured when load of generator is connected as tap of a feeder.

As per the undertaking between the respondent and the Petitioner dated 6.09.2008, selling energy generated at the combined co-generation and thermal plant has been agreed to subject to the following conditions.

1) The proposed tap line from Kanjikkode-Kollengode 110kV feeder is not technically feasible for evacuating the power and it will affect the stability of the operation of the Kollengode substation. In view of the present power crisis and as an immediate measure to enable evacuation of power from the proposed 10 MW captive plant of M.P.S. Steel Casting (P) Ltd. At Kanjikkode, a tap line can be constructed from feeder-II of the existing DC line of 110kV Kanjikkode – Kollengode line, exclusively for M/s MP Steel Casting (P) Ltd., with isolation at Kollengode substation end. This will serve as a dedicated 110kV line to Kanjikkode 220kV substation from the co-generation plant. Board will have the right to conduct periodic review and to take suitable remedial measures to ensure supply stability at Kollengode substation as and when required. If any outage occurs in 110kV Kanjikkode-Kollengode feeder-I, the same feeding to Kollengode substation will be arranged through feeder-II after isolating the co-generation plant, if required. This is only a temporary arrangement.

2) As a permanent measure for evacuation of power from 10MW Co-generation plant at M/s. MPS Premises, the company shall establish a dedicated feeder at its

cost from their generating station to 220kV Kanjikode station. At present, there is a proposal for constructing a multi circuit line from the 220kV substation Kanjikode to the proposed 110kV substation KINFRA. It is possible to evacuate power from Co-generation plant at M/s MPS Premises by constructing 110KV line from KINFRA to the premises of M/s MPS Steel at Kanjikode, Palakkad.

The Respondent, KSEB reiterated that clause 3.1 I(c) is in tune with the undertaking given by the petitioner and the provisional arrangements made for evacuation of power. The clause has to be retained.

Article 4.3. and 1.1.(af) (Guaranteed Capacity)

The guaranteed capacity only indicates the maximum capacity and not expected to deliver the guaranteed capacity on a continuous basis. The available capacity has to be informed at least 24 hours in advance.

Agreed to delete clause 4.3 on the liquidated damages but definition 1.1(af) has to be retained.

Article 5.1 & 7.4 (Dispatch schedule)

The respondent argued that this provision is necessary to ensure grid discipline by the generation Company. However, they agreed to evolve a common despatch procedure for all small projects in consultation with the officials of SLDC.

Article 5.2 & 8.3 (Tariff for Infirm Energy):

Board will pay a tariff as decided by the Hon'ble Commission.

The petitioner has been supplying power to the respondent from 10.09.2008, from the date of synchronisation, after getting an undertaking from the petitioner to accept the terms and conditions including tariff as per the PPA to be approved by the Hon'ble Commission and Government of Kerala. KSEB has been making provisional payment at Rs. 2.02 per unit from the date of synchronisation. From the date of COD ie., from 19.02.2009 payment was made as per the approved tariff for the project as Rs. 2.31 per unit.

Article 5.3(a,b&c) (other benefits):

As per the prudent utility practice the benefits offered for Co-generation, tax holiday benefit, benefit on account of carbon credit for the project shall be shared equally between the respondent and the petitioner.

Article 8.5 & 9.4(Tariff, billing and payment)

The petitioner's request for exemption from collecting demand charges and adjustment of import energy with export on unit to unit adjustment (adjusting with the consumption of other factories) is not agreeable to the respondent because of the following:

1. KSEB has agreed to procure power from the plant as an IPP only
2. The adjustment of own consumption of their industries against the generation is permitted only in CPPs

The proposed amendment is outside the purview of the proposed PPA.

Article 9.8 (Rebate for prompt payment):

Respondent has been availing rebate for prompt payment for all IPPS, CGS, PGCIL and Traders and ready to offer 2% instead of 2.5%

4.0 Analysis by the Commission

The Commission heard the matter in detail. As per Section 86 (1) (b) of the Electricity Act 2003 the Commission has to regulate electricity purchase and procurement process of distribution licensees through agreements and under 86(1) (f) adjudicate upon the disputes between the licensees and generating companies. Section 86(1)(b) and 86(1)(f) of the Electricity Act, 2003, amply equip the Commission to intervene in the matters relating to PPA and disputes between licensees and generating companies. The petitioner as a generating company expressed its inability to follow certain provisions in the draft PPA, as insisted by KSEB. As per Section 60, the Commission has to issue directions in a situation where a licensee or generating company has the advantage of a

dominant position. The objections raised by the petitioner are looked into in the above background. The Commission has also been guided by the fact that small generators, captive plants and co-generation plants need encouragement and support from all sides for reducing the dependence of the state on high cost sources.

3) Article 3.1(c) (Evacuation System) :

The tariff fixed by the Commission is at the inter connection point. As per the definition - 'Inter Connection Point' shall mean gantry point in the project switchyard at 110kV level from where the evacuation system starts.

'Evacuation system' means transmission facilities built from the inter connection point in the Companies switchyard at 110kV up to the existing transmission system of KSEB; which shall mean a tap line constructed from 110kV Kanjikode-Kollenkode feeder II on temporary arrangement and a dedicated 110kV line from the interconnection point up to the existing 220kV substation, Kanjikode, Palakkad on permanent arrangement, which will be constructed by the company and transferred to KSEB. Operation and maintenance of the line will be done by KSEB. Board shall have the right to access these lines after commissioning.

The tap line constructed from 110kV Kanjikode- Kollenkode feeder II was only a temporary arrangement for enabling the evacuation on immediate basis. The KSEB has raised certain technical and operational issues on the Kanjikode - Kollengode 110kV feeding system and pointed out that using this DC feeder for evacuation on a permanent basis is not technically feasible. The Commission does not wish to adjudicate on the matter at present. Hence the provision for permanent and independent evacuation system has to be retained, as provided in the undertaking dated 6.9.2008 given by the petitioner to KSEB. The provision for permanent evacuation system as provided in clause 3.1 (c) shall be retained.

4) Article 4.3. and 1.1.(af) (Guaranteed Capacity)

Since there is no firm power guaranteed as the output of the power plant depends on production of sponge iron, there is no relevance in the guaranteed capacity

and hence article 4.3 shall be deleted. But definition 1.1. (af) may be retained for the sake of clarity and future reference.

5) Article 5.1 & 7.4 (Dispatch schedule)

In the case of system constraints the generation company has to support the system by increasing or decreasing the generation as per the instruction from SLDC to the extent possible, so also prearranged shutdown or maintenance of the machines will be with intimation to SLDC. The clause does not have any financial bearing on the company as the tariff is a single part. For operational purposes the clause shall be retained.

6) Article 5.2 & 8.3 (Tariff for Infirm Energy):

Single part preferential tariff was determined for the combined coal and co-generation plant treating the unit as a co-generation plant by the Commission in line with the National Policy in the matter. The plant cannot guarantee a firm power of 10 MW, since the generation depends on the production of Sponge Iron. The plant cannot assure a guaranteed capacity. The system operator cannot back down or ramp up the generation of such small units from time to time as per the system requirement. Linking capacity charges to the pre-declared capacity is not practically possible in the case of such units. Such units will not be able to take part in the intra-state ABT regime as and when implemented. Because of these reasons capacity charges are embedded in the single part tariff approved by the Commission. So also the conventional concept of infirm tariff cannot be applied in such cases. Hence it would not be appropriate to include the provision for infirm tariff in the PPA. As a measure to encourage small generators, captive units, Co-generation plants etc to come up in the state, the Commission decides that, in future, whatever energy pumped by them to the grid from the date of synchronisation may be paid as per the approved tariff.

Hence the Commission decides that the provision for and definition of infirm energy shall be deleted from the PPA. The Commission also notes that the

Commercial operation of this plant has been declared within 6 months from the date of synchronisation in the instant case.

7) Article 5.3(a,b&c) (other benefits):

CERC regulation provides sharing of benefits. Hence sharing of benefits applicable to co-generation plant, tax holiday benefit if eligible and sharing of carbon credit has to be retained. As per the regulation tax on income streams of the generating company shall not be recovered from the beneficiaries. The taxes, surcharges, Central Excise duties and levies are not applicable to the sale of power.

8) Article 6.2 (Metering):

The clause is to be retained. The question of providing SEM becomes relevant only when Inter State ABT is introduced.

9) Article 8.5 & 9.4(Tariff, billing and payment)

The Commission analysed the clauses on the rates payable by the Company to KSEB in the case of power drawn from the KSEB grid. Clause 8.5 and 9.4 in the draft PPA are related to this.

In the instant case the petitioner is not only a generator but also could be a consumer occasionally. If netting of units as per clause 8.5 is done the question of fixed charges for the KVA demand would remain unresolved. But the petitioner cannot be asked to pay the fixed charges for the whole month for the reason that they had to draw power from KSEB grid for a few days due to emergency. On the other hand KSEB has to be compensated for providing the capacity reserved for supply of power to the petitioner during emergencies.

The Commission analysed the matter in detail and concluded that in order to encourage such small Co Generation plants the fixed charges payable for the standby power should be reasonably limited to fair levels. Fixed charges payable shall be computed on a proportionate basis for the actual number of days on which the Company had to draw power from the Grid, subject to the condition that the MD charges shall be computed for 75% of the Contract Demand .In other

words, when the company draws power from the KSEB Grid, they have to pay the energy charges for the actual number of units as per the applicable tariff rates and the fixed charges shall be payable for the actual number of days of drawals only. The company shall inform the KSEB in advance whenever they propose to draw power from the KSEB grid.

10) Article 8.6: (purchase of reactive energy by the Board)

The cost of reactive power at 0.9 PF has already been covered in the Tariff and hence the issue of pumping reactive power at above 0.9 PF only arises. The supplying of such reactive power may not be possible by the petitioner and hence clause 8.6 may be deleted.

11) Article 9.8 (Rebate for prompt payment):

As per CERC regulation rebate of 2% shall be allowed for prompt payment. Hence the rebate may be amended from 2.5% to 2%.

5. Order of the Commission

Based on the above observations, the Commission decide that certain amendments are required for some of the clauses of the PPA. Hence the Commission Orders as follows:

1) Page1 Para 2 Line 2 shall be corrected as as 17/50, D.P.F Street, P.N.Palayam, Coimbatore-37.

2) Article 2.1.1: Term of agreement

The agreement shall be valid for a period of 5 years from the date of COD i.e. 19.2.2009.

3) Definition of infirm energy [1.1(ak)], Article 5.2 & 8.3 (Tariff for Infirm Energy) Article 4.3. (Guaranteed Capacity) and Article 8.6: (purchase of reactive energy by the Board) shall be deleted

4) Article 8.5 & 9.4

When the company draws power from the KSEB Grid, they have to pay the energy charges for the actual number of units as per the applicable tariff rates and the

fixed charges shall be payable for the actual number of days of drawals only. The company shall inform the KSEB in advance whenever they propose to draw power from the KSEB grid.

Article 8.5 shall be deleted.

9.4 of the PPA shall be modified as follows:

Energy consumed by the Company from the Board's Grid for consumption or during maintenance /shut down period of the power plant shall be billed by the Board as given below: the energy consumed will be billed as per the applicable tariff rates and the KVA demand shall be billed at the applicable rates per KVA for the actual number of days of drawals subject to the conditions that the MD charges shall be computed for 75% of the Contract Demand or actual demand whichever is higher and the company shall inform the KSEB in advance whenever they propose to draw power from the KSEB grid.

5) Article 9.8 (Rebate for prompt payment) shall be modified as 'If the Board pays the amount due within the due date of payment, then a rebate of 2% shall be given to the Board by the Company.'

With the above cited observations, the petition is disposed of with directions contained in this order to the parties. The modifications as directed above shall be incorporated in the PPA. The KSEB is also directed to evolve a simple model PPA applicable to Small Generators, less than 10MW, and submit to the Commission for approval.

Sd/-
Mathew George
Member

Sd/-
P. Parameswaran
Member

Sd/-
K.J.Mathew
Chairman

Authenticated copy for issue
Secretary

