

KERALA STATE ELECTRICITY REGULATORY COMMISSION

THIRUVANANTHAPURAM

Petition No: OP 43/ 2022

Present : Adv. A. J. Wilson, Member (Law).

In the matter of : **Petition filed by M/s World Wide Iron and Steel Industries Private Limited for additional power allocation of 1000 kVA**

Petitioner : M/s World Wide Iron and Steel Industries (P) Limited,
VIII/862, Wise Park, Kanjikode
Palakkad -678 621

Petitioner Represented by : Hashim K P, Director,
World Wide Iron and Steel Industries (P) Limited

Respondent : Kerala State Electricity Board Ltd.
Vydyuthi Bhavanam, Pattom P.O
Thiruvananthapuram- 695004

Respondent represented by : Sri. Rajan M. P, DyCE, TRAC, Vydyuthi Bhavanam
Sri. Byju K.K, DyCE, Distribution Circle, KSEB Ltd,
Palakkad

Date & time of E- Hearing : 20.09.2022, 11.00 AM

Order dated 26.09.2022 in OP No 43/2022

1. M/s World Wide Iron and Steel Industries Private Limited, a company established in 2003 and engaged in the manufacturer of iron and steel bars at its factory at Kanjikode, Palakkad, have filed a petition before the Commission on 05.07.2022 with the following prayers:
 - a. To clarify that Regulation 12 of the Kerala Electricity Supply Code, 2014 is not applicable to power intensive units already in operation; and
 - b. To direct KSEB Ltd to allocate the additional power of 1000 kVA, in addition to the existing contract demand of 2990 kVA.

The Commission admitted the petition as OP No.43/2022 and Form 3A notice was issued to the respondents.

Brief History of the issue

2. M/s World Wide Iron and Steel Industries Private Limited (WWI&S Ltd) is the manufacturer of Royal TMT Steel bars. The Company has a HT Connection (LCN 17/4110) under Electrical Section, Palakkad, availing supply at 22kV voltage level with a contract demand of 2990 kVA. Due to the COVID-19 pandemic, the operation of the iron and steel plant during the last two years was on a slow pace. Since the market is reviving after the COVID-19 pandemic, considering the 19 years operation of the plant, M/s World Wide Iron & Steel Industries Private Limited decided for modernization and expansion of the plant.
3. For the purpose of modernization and expansion of the plant, additional power of 1000 kVA is required, in addition to the existing contract demand of 2990 kVA. For that an application for additional power allocation of 1000 kVA was submitted to KSEB Ltd on 04.07.2022.
4. Further, to the application for additional power allocation of 1000 kVA, KSEB Ltd responded that “for a power intensive unit having a Contract Demand of more than 50% of the maximum contract demand for the specified voltage level (for 22 kV maximum contract demand permissible is 6000 kVA) under Regulation 8 shall be granted only through a dedicated feeder and the intending consumer shall meet the expenditure for the construction of the feeder.” Aggrieved by the above direction of the Licensee, the appellant filed this OP before the Commission, with the prayers indicated under Para 1 above.
5. M/s World Wide Iron and Steel Industries Private Limited stated that, the request for additional power allocation of 1000 kVA is only 33% of the existing contract demand. The total contract demand including the additional allocation of 1000 kVA is 3990 kVA only and is less than the permissible upper limit of 6000 kVA for 22 kV consumers, as per Regulation 8 of the Kerala Electricity Supply Code. Further, they stated that Regulation 12 of the Electricity Supply Code is applicable to new power intensive units only and is not applicable for the existing consumers. The condition of power intensive unit having a Contract Demand of more than 50% of the maximum contract demand for the specified voltage level has not been mentioned in Regulation 12 of the Kerala Electricity Supply Code, 2014. Hence, clarification in Regulation 12 of Supply Code is required.

Regulation 12 of the Kerala Electricity Supply Code, 2014 notified on 31.01.2014 is reproduced below:

“12. Dedicated feeder to be provided to power intensive unit at its cost..-
Service connection to power intensive unit shall be granted only through a dedicated feeder and the intending consumer shall meet the expenditure for construction of the feeder and related works including the necessary modification to the distribution system to be done by the licensee for this purpose, at the rates in the cost data approved by the Commission.”

6. Moreover, the factory is 19 years old and hence modernization is essential for trouble free operation of the plant, which will be possible only if, the additional power allocation is sanctioned.

Submission from KSEB Ltd

7. M/s KSEB Ltd vide letter dated 16.08.2022 intimated the Commission that, World Wide Iron and Steel Industries is availing supply at 22kV level from 220 kV Substation, Palakkad through 22 kV Prince feeder. The feeder is drawn using ACSR Raccoon Conductor with a current carrying capacity of 200 A. The total allotted contract demand from the 22 kV Prince feeder is 6740 kVA. The maximum current that can be drawn by the consumers at their present sanctioned contract demand is 176 A. Also, the maximum load recorded in the feeder at present is 160 A. The rating of the transformer in which Prince 22 kV feeder is connected is 25 MVA, 110/ 22 kV. The maximum loading capacity of the transformer on secondary side is 656 A. KSEB Ltd also mentioned that since the consumers are entitled to draw 30 % excess of their contract demand during off peak hours, the current drawing can go upto 230 A.
8. M/s WWI&S Ltd is a power intensive unit, which is engaged in the production of steel bars. Further as per Regulation 12 of the Kerala Electricity Supply Code, 2014, the power supply to power intensive unit shall be granted only through a dedicated feeder and the intending consumer shall meet the expenditure for construction of the feeder and related works including the necessary modification to the distribution system. So, an estimate of Rs.1.21 Cr has been prepared for the construction of a dedicated feeder to this consumer from 220 kV Substation, Palakkad, for sanctioning the addition load and intimation was given to the consumer to remit the amount.
9. Further, KSEB Ltd vide additional submission dated 19.09.2022 mentioned that, M/s WWI&S Ltd is being billed under HT 1(A) Industrial tariff with a contract demand of 2990 kVA. The average billing demand is 2550 kVA for the last 5 years (upto August 2022). During the COVID -19 pandemic period (April 2020 to March 2021), their average billing demand was 2590 kVA. Therefore, it is evident that there was no adverse market condition during the pandemic period.

10. The petitioner, M/s WWI&S Ltd had initially applied for the additional demand of 690 kVA on 11.11.2021 and KSEB Ltd had intimated the consumer that, dedicated feeder is required for giving the supply and also intimated that, the consumer shall meet the expenditure for constructing the feeder. The consumer, M/s WWI&S Ltd on 02.06.2022 had expressed their willingness to meet the expenditure for construction of the dedicated feeder and also requested KSEB Ltd to proceed with the process at the earliest. Later on 30.06.2022, M/s WWI&S Ltd has filed an application with the licensee for enhancing the contract demand to 4000 kVA.

11. Accordingly, KSEB Ltd has issued a demand note towards the work on the transmission side and distribution side, considering M/s WWI&S Ltd as a power intensive industry. M/s WWI&S Ltd is engaged in the production of steel bars, which comes under the category of power intensive unit as mentioned in Regulation 2(66)(iii). Also, the Induction furnaces for melting steel are high powered electrical loads and have the tendency to affect the quality of power being delivered to other loads in the electricity distribution grid by introducing issues such as voltage sags, voltage flickers, harmonics etc. The definition of power intensive unit as per Kerala Electricity Supply Code, 2014 is reproduced below:

“2(66) “power intensive unit” means an industrial unit which consumes electricity at HT or EHT level:-

(i) for induction arc furnace; or

(ii) for the manufacture of any one or more products namely calcium carbide, caustic soda, charge chrome, Ferro-chrome, Ferro-manganese, Ferro-silicon, Ferro-alloys, Silicon carbide, sodium metal, potassium chlorate, sodium chlorate and other chlorate and per chlorates; or

(iii) for any one or more of the processes namely; melting of metals and alloys, electro chemical processes, electro thermal processes; or

(iv) for manufacture of products for which cost of electricity is more than twenty five percent of the cost of product manufactured; or

(v) for heating load exceeding twenty percent of its total connected load;”

12. KSEB Ltd further submitted that, the Hon'ble Commission has amended Regulation 12 of the Kerala Electricity Supply Code, 2014 as per the notification dated 11th January, 2016 which mentions that; for a power intensive unit having a Contract Demand of more than 50% of the maximum contract demand for the specified voltage level under Regulation 8 shall be granted through a dedicated

feeder and the intending consumer shall meet the expenditure for the construction of the feeder. The relevant portion of the amendment dated 11th January, 2016 in Regulation 12 is reproduced below:

“2. Amendment of the Code.—In the Kerala Electricity Supply Code 2014,

- (i) in regulation 12, after the words “power intensive unit”, the words and figures “having a contract demand of more than 50 percentage of the maximum contract demand for the specified voltage level under Regulation 8” shall be inserted.”*

Hearing on the petition

13. The hearing of the petition was conducted on 20.09.2022 at 11:00 am through video conferencing. The petitioner M/s World Wide Iron and Steel Industries Private Limited was represented by Sri. Hashim K.P (Managing Director). The respondent M/s KSEB Ltd was represented by Sri. Byju K. K (Deputy Chief Engineer, Palakkad) and Sri. Rajan M.P (Deputy Chief Engineer, TRAC).

14. Sri. Hashim K.P representing M/s WWI&S Ltd mentioned that, for the purpose of modernization and expansion of the plant, an additional power of 1000 kVA is required, in addition to the contract demand of 2990 kVA and for that an application for additional power allocation of 1000 kVA was submitted to KSEB Ltd on 04.07.2022.

15. He also requested that, for the time being the additional demand of 1000 kVA may be sanctioned from the existing 22 kV Prince feeder till the period of completion of the dedicated feeder by KSEB Ltd. Since, modernization is essential for trouble free operation of the plant considering the age of the plant, the requirement of additional power of 1000 kVA is necessary.

16. Sri. Rajan M.P representing KSEB Ltd mentioned that M/s WWI&S Ltd is a power intensive unit, which is engaged in the production of steel bars. Further as per amendment to Regulation 12 of the Kerala Electricity Supply Code, 2014, the power supply to power intensive unit shall be granted only through a dedicated feeder and the intending consumer shall meet the expenditure for construction of the feeder and related works including the necessary modification to the distribution system. The relevant portion of the regulation from supply code is highlighted below:

“12. Dedicated feeder to be provided to power intensive unit at its cost.- Service connection to power intensive unit having a contract demand of more than 50 percentage of the maximum contract demand for the specified voltage level under Regulation 8, shall be granted only through a dedicated

feeder and the intending consumer shall meet the expenditure for construction of the feeder and related works including the necessary modification to the distribution system to be done by the licensee for this purpose, at the rates in the cost data approved by the Commission.”

17. On the request of M/s WWI&S Ltd, KSEB Ltd stated that, at present the 22 kV Prince feeder of 220 kV Substation is drawn using ACSR Raccoon Conductor with a current carrying capacity of 200 A. Also, the maximum load recorded in the 22 kV Prince feeder is 160 A. So, no additional load can be drawn from the feeder since, the consumers are entitled to draw 30 % excess of their contract demand during the off peak hours.

Analysis and decision of the Commission

18. The Commission has examined the petition, averments of the petitioner, the provisions in the Kerala Electricity Supply Code, 2014, the deliberations of the petitioners and the respondent during the hearing, related rules and regulations, and observe that;

M/s WWI&S Ltd is an iron and steel industry availing power at 22 kV from 220 kV Substation Palakkad, with a contract demand of 2990 kVA. For the purpose of modernization and expansion of the plant, WWI&S Ltd has applied for the additional demand of 690 kVA on 11.11.2021. Since, dedicated feeder is required for giving the supply for power intensive unit, KSEB Ltd intimated the petitioner about the matter and informed that, the consumer shall meet the expenditure for constructing the feeder. M/s WWI&S Ltd on 02.06.2022 has expressed their willingness to meet the expenditure for the construction of the dedicated feeder and requested KSEB Ltd to process the application for the allocation of additional power through a dedicated feeder at the earliest. Later, on 30.06.2022 M/s WWI&S Ltd has filed an application with the licensee for enhancing the contract demand to 4000 kVA. Considering M/s WWI&S Ltd as a power intensive industry, KSEB Ltd has issued a demand notice based on the estimate prepared towards the work in the transmission side and the distribution side for constructing the dedicated feeder for the consumer.

19. As per Regulation 8 of the Kerala Electricity Supply Code, 2014 the maximum contract demand permissible for a consumer availing supply at 22 kV is 6000 kVA. Here, the existing contract demand of M/s World Wide Iron and Steel Industries Private Limited is 2990 kVA and with the additional power requirement of 1000 kVA, the total contract demand is 3990 kVA. Regulation 8 of the Kerala Electricity Supply Code, 2014 is reproduced below:

“8. Supply voltages for different connected loads or contract demands.-
The supply voltage levels for different connected loads or contract demands

for new connections or for gross connected load or contract demand consequent to revision of connected load or contract demand, shall be as follows:-

Supply voltage	Maximum connected load (for those without demand based metering)	Maximum contract demand (for those with demand based metering)
240 V(single phase)	5 kW	
415V(three phase)	100 kVA	100kVA
11 kV		3000 kVA
22 kV		6000 kVA
33 kV		12000 kVA
66 kV		20000 kVA
110 kV		40000 kVA
220 kV		>40000 kVA

Provided that the limit of connected load or contract demand specified for different supply voltage levels may be exceeded up to a maximum of twenty percent if supply at the appropriate higher voltage level is not feasible due to non-availability of distribution line at such higher voltage level in that area of supply:

Provided further that the limits of connected load or contract demand specified for different supply voltage levels as specified above may be exceeded in exceptional cases with the approval of the Commission, subject to the conditions stipulated in such approval.”

20. Further, M/s WWI&S Ltd is a power intensive industry which manufactures TMT steel bars. Based on the amendment dated 11th January, 2016 of Regulation 12 (mentioned in Para 12 above) of the Kerala Electricity Supply Code, 2014, for a power intensive unit having a Contract Demand of more than 50% of the maximum contract demand for the specified voltage level under Regulation 8 (here it is 6000 kVA for 22 kV) shall be granted through a dedicated feeder only and the intending consumer shall meet the expenditure for the construction of the

feeder and also the related works including the necessary modification to the distribution system to be done by the licensee for this purpose, at the rates in the cost data approved by the Commission.

21. The expenditure for extension or upgradation of the distribution system for enhancing the load demand of a consumer for meeting the demand of power intensive unit shall be borne by the consumer irrespective of its demand as per Regulation 36 of the Kerala Electricity Supply Code, 2014. The Regulation 36 of the Supply Code is indicated below:

“36. Expenditure for extension or upgradation or both of the distribution system to be borne by the consumer.-

The expenditure for extension or upgradation or both of the distribution system undertaken exclusively for giving new service connection to any person or a collective body of persons or a developer or a builder, or for enhancing the load demand of a consumer or a collective body of consumers or a developer or a builder, shall be borne by the respective applicant or consumer or collective body of consumers or developer or builder, as the case may be, in the following cases:-

- (i) for meeting the demand of an applicant with a contract demand above one megawatt (MW);*
- (ii) for meeting the additional demand of existing consumers, if the aggregate demand including the additional demand applied for, is above one megawatt (MW);*
- (iii) for meeting the demand of the domestic or commercial or industrial complex or colony constructed by a developer or a builder with a demand above one megawatt (MW);*
- (iv) for meeting the demand of a high rise building irrespective of its demand;*
- (v) for meeting the demand of power intensive unit irrespective of its demand; and**
- (vi) for meeting the demand of a consumer requesting for dedicated feeder or protected load status irrespective of its demand:*

Provided that, if due to technical reasons, the extension or upgradation or both to be undertaken by the licensee as per this regulation is more than the requirement of such consumer, the expenditure for such extension or upgradation or both to be realised from the consumer shall be limited to the proportionate expenditure.”

22. The Commission is of the view that M/s WWI&S Ltd is a power intensive unit and the contract demand exceeds 50% of the maximum contract demand permissible for the specified voltage level under Regulation 8. Thereby, power supply to the

consumer can be granted through a dedicated feeder only and they shall meet the expenditure for construction of the feeder.

23. Regarding the first prayer of M/s WWI&S Ltd., to clarify that Regulation 12 of the Kerala Electricity Supply Code, 2014 is not applicable to power intensive units already in operation; it is clarified that Regulation 12 is applicable for both the new units and for upgradation of the existing units. Here, M/s WWI&S Ltd is enhancing the contract demand and it exceeds 50 % of the maximum contract demand for the specified voltage level under Regulation 8. The request for additional contract load of 1000 kVA (total 3990 kVA) can't be sanctioned from the existing 22 kV feeder, since the total load requested is greater than 50% of the permissible loading capacity of the existing feeder (Regulation 12 and 8 of the Electricity Supply Code). Therefore, **the additional load to the petitioner shall be granted only through a dedicated feeder and the consumer shall meet the expenditure for construction of the said feeder from 220 kV Substation, Palakkad.**

24. Furthermore, M/s WWI&S Ltd requested before the Commission to sanction the additional demand of 1000 kVA from the existing 22 kV Prince feeder for the time being till the period of completion of the dedicated feeder by KSEB Ltd. The Commission has noticed that, the 22 kV Prince feeder of 220 kV Substation, Palakkad is drawn using ACSR Raccoon Conductor with current carrying capacity of 200 A. At present, the sanctioned contract demand to all the consumers availing power supply from the 22 kV Prince feeder is 176 A, which accounts to more than 88 % of the capacity of the feeder. Also, the maximum load recorded in the 22 kV Prince feeder is 160 A. So, it can be concluded that the 22 kV Prince feeder of 220 kV Substation, Palakkad is already loaded to greater than 80% of the permissible loading capacity of the feeder. Further, the consumers are entitled to draw upto 30% of the contract demand, during the off peak time blocks. Therefore, technically it is not feasible to draw additional load from the existing feeder. The additional load can only be sanctioned with a new 22 kV feeder to the consumer, for which the consumer has to bear the expenses. Thereby, **the Commission rejects the request of M/s WWI&S Ltd to sanction the additional demand of 1000 kVA from the existing 22 kV Prince feeder, considering the fact that it is technically not feasible.**

25. On the second prayer of the petitioner to direct KSEB Ltd to allocate the additional power of 1000 kVA in addition to 2990 kVA . Based on Regulation 8 of the Kerala Electricity Supply Code, 2014 the maximum contract demand for a consumer availing supply at 22 kV is 6000 kVA. Here, with the additional power requirement of 1000 kVA, the total contract demand for M/s World Wide Iron and Steel Industries Private Limited is 3990 kVA. The Commission has seen that, M/s WWI&S Ltd has initially applied for the additional demand of 690 kVA on

11.11.2021 and KSEB Ltd on 25.02.2022 intimated that, dedicated feeder is required for giving the supply and also intimated that, the consumer shall meet the expenditure for constructing the feeder. The petitioner on 02.06.2022 has expressed their willingness to meet the expenditure for construction of the dedicated feeder and also requested KSEB Ltd, to proceed with the process at the earliest.

26. Thereafter, the petitioner filed an application with the licensee for enhancing the contract demand to 4000 kVA. Since, it exceeds 50 % of the maximum contract demand for the specified voltage level, the connection to the consumer can be granted through a dedicated feeder only from 220 kV Substation Palakkad. Commission has seen that, on the response to the petitioner application, KSEB Ltd has issued a demand note based on the estimated amount towards the work to be carried out on the transmission and distribution side of the system, considering the petitioner as a power intensive industry. An estimate of Rs. 1.21 Cr has been prepared on 03.08.2022, for the construction of the dedicated feeder from 220 kV Substation, Palakkad, for sanctioning the additional load and information was given to the consumer to remit the amount.

27. The petitioner during the hearing has requested before the Commission to allocate the additional load of 1000 kVA, as early as possible. Since, the factory is 19 years old and considering the ageing factor, modernization is essential for trouble free operation of the plant. KSEB Ltd during the hearing mentioned that, once the payment is completed by the petitioner, the construction of the dedicated feeder can be completed within six months' time period. So, the Commission is of the view that additional power to M/s World Wide Iron and Steel Industries Private Limited can be sanctioned through a new 22 kV feeder to the consumer from 220 kV Substation Palakkad. **KSEB Ltd shall complete the construction of the feeder within 6 months' time period, after the payment for the construction of the dedicated feeder is made by the consumer.**

Orders of the Commission

28. The Commission after duly considering the petition filed by M/s World Wide Iron and Steel Industries Private Limited, the arguments of KSEB Ltd and the petitioner during the hearing, the provisions of the Electricity Act, 2003 and the Kerala Electricity Supply Code, 2014, and based on the analysis and decisions detailed above, hereby orders as follows;

- (1) The additional load to the petitioner shall be granted only through a dedicated feeder and the consumer shall meet the expenditure for construction of the new feeder from 220 kV Substation, Palakkad.

- (2) Regulation 12 as amended on 11.01.2016 is applicable for both, the new units and for upgradation of the existing units.
- (3) The Commission rejects the request of M/s World Wide Iron and Steel Industries Private Limited to sanction the additional demand of 1000 kVA from the existing 22 kV Prince feeder, considering the fact that technically it is not feasible.
- (4) KSEB Ltd shall allocate the additional power of 1000 kVA, after receipt of the payment for the construction of dedicated feeder and shall complete the construction of the feeder within 6 months from the date of payment.

The petition is disposed off as ordered above.

Sd/-

Adv. A. J. Wilson
Member (Law)

Approved for issue

Sd/-

C R Satheesh Chandran
Secretary