

**KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM**

**PRESENT: Sri. K.J.Mathew, Chairman
Sri. P.Parameswaran, Member
Sri. Mathew George, Member**

March 15, 2011

In the matter of

To remove difficulties in implementing Optional Demand Based Tariff of Schedule of
Tariff and Terms and Conditions of Retail Supply by KSEB with effect from
01/01/2010

Petition DP 84/2010	Shaji Sebastian , President, The Kerala State Small Industries Association, Ernakulam District	Petitioner
	Kerala State Electricity Board, Vidyuthi Bhavanam, Thiruvananthapuram	Respondent

ORDER

1. Background

The petitioner is the President of the Ernakulam Unit of the Kerala State Small Industries Association. The petitioner's case is that though from April 1st, 2010 KSEB has introduced TOD Tariff for LT Industrial Consumers. The benefit of the provision ' Contract Demand shall be treated as connected load ' in Clause 2 (1) of the Supply Code could not be enjoyed by LT Industrial consumers. In various industrial estates even when transformers of rating 100 kVA to 500 kVA are available, LT Industrial consumers are forced to erect separate transformer above connected load of 50 kVA. The petitioner pointed out other difficulties faced by consumers and sought modifications in the existing regulations.

2. Prayers in the petition

- (1) In the Clause I (b) of the Supplementary Agreement for TOD metering for LT Industrial Consumers, LT VII(A) and VII (C) Consumers', the sentences 'But for all other purposes , the connected load will be the total capacities of connected equipment (kVA or kW)and any equipment detrimental to the suppliers installation shall not be connected to the installation. Additional load of equipment shall be connected to the consumers only with the prior permission of the Board and any load / equipment found at any times upon inspection in excess of the load/ equipment that has already been sanctioned shall be treated as unauthorized ' may be deleted and another sentence may be added as 'Additional load shall be connected by consumers only with the prior permission of the Board for which application should be given by the consumer atleast 7 days in advance which will be received by KSEB and inspection will be conducted within 7 days from the date of application if required. All loads found detrimental to the electrical system will have to be removed by the consumer immediately against written notice from the Board'.
- (2) Add a new proviso in Annexure E TOD Tariff for LT Industrial Consumers
"Schedule of Tariff and Terms and Conditions for retail supply by KSEB with effect from 01-01-2010 as "For those who opt for maximum demand based tariff, the contract demand shall be treated as connected load."
- (3) Add a phrase 100 kVA for those who opt for maximum demand based tariff against supply voltage 415 V below maximum contract demand in 5(a) of Supply Code, 2005.
- (4) Correct 5(b) of Supply Code as 'For new consumers connected load permitted under LT may be limited to 100 kVA. But consumers existing as on the date of implementation of Kerala Electricity Supply Code, 2005 may be permitted to operate in LT up to a load of 150 kVA or 150 kVA maximum demand for those who opt for maximum demand based tariff.

- (5) In Clause 4 Sub Clause (1) of 'KSEB terms and Conditions of Supply', the sentence before last sentence may be modified as ' Outside Industrial Estate for loads of 50 kVA (50 kVA Maximum Demand in case of TOD metering) and above connection shall be effected only after installation of separate transformer of adequate capacity , the cost of which shall be recovered from the consumer.'
- (6) In B.O (FM) No 1848/2010 (DPC II/AE/T&C of Supply 01/2009) dated 17-07-2010 the last paragraph , portion of the sentence starting with ' and if the promoter of Industrial Parks gives undertaking that any additional installation of transformers required in future inside the park will be carried out at their cost 'may be removed.
- (7) A direction may be given to KSEB to accept survey details and certification from Industries Department for effecting connection at industrial premises.
- (8) A clarification/ Declaration may be given as 'pasteurization is a process which is classified as Industry and Industrial Tariff shall be applicable for the same from the date of inception or starting of the Industry'.
- (9) A system for calculating 'unit' consumption of Electricity based on kVAh may be implemented.

3. Hearing of petition.

The hearing of the petition was held on 6-12-2010 and the following arguments were presented to substantiate the prayers of the petitioner.

- 3.1** In the Clause I (b) of the Supplementary Agreement for TOD metering for LT Industrial Consumers, LT VII(A) and VII (C) Consumers', the sentences 'But for all other purposes , the connected load will be the total capacities of connected equipment (kVA or kW) and any equipment detrimental to the suppliers installation shall not be connected to the installation. Additional load of equipment shall be connected to the consumers only with the prior permission of the Board and any load / equipment found at any times upon inspection in excess of the load/ equipment that has already been sanctioned shall be treated

as unauthorized ' may be deleted and another sentence may be added as ' Additional load shall be connected by consumers only with the prior permission of the Board for which application should be given by the consumer at least 7 days in advance which will be received by KSEB and inspection will be conducted within 7 days from the date of application if required. All loads found detrimental to the electrical system will have to be removed by the consumer immediately against written notice from the Board.

3.1.1 Petitioner has stated once contract demand is treated as connected load and tariff is collected accordingly KSEB cannot penalize the consumer upon two times the physically connected load, there is no burden for KSEB. KSEB is collecting the tariff as per Maximum Demand and system designing is based on Maximum Demand. There are several incidents in which even after filing of application and completion report by consumer for availing supply, KSEB has penalized the consumer for unauthorized additional load.

3.1.2 KSEB stated that the averment of the petitioner that system designing in the Board is based on Contract Demand is not true to facts. It may be noted that the actual demand of any consumer varies from the contract demand month to month and system needs to meet all such variations. Also consumer is not so forbidden from overdrawing above contract demand which the system needs to meet. For billing purpose the Hon Commission has clearly mentioned in Annexure D of Tariff Notification that 'for those who opt for Maximum Demand Tariff , the Contract Demand shall be treated as connected load.

3.1.3 Commissions analysis . As per the third condition of 'Schedule of Tariff and Terms and Conditions for retail Supply by KSEB with effect from 1-01-2010', for those who opt for maximum demand based tariff , the contract demand shall be treated as connected load. In a rational structure of two-part tariff, 'Fixed Charges' are levied from consumers to recover fixed liabilities incurred by the utilities. Ideally this should be done in proportion to the demand placed by a consumer on the System, as reflected by "connected load" which provides

information about the load-profile of the consumer and maximum demand to arrive at the estimates of its consumption. This helps utility design supply system to match the needs of a consumer and is, therefore, just and fair mechanism for recovering fixed liabilities of the utility. Linking Demands with the 'Connected Load' therefore is not unreasonable. Demand Charges linked to 'Connected Load' for recovery of 'fixed charges' and minimum guaranteed Demand are normally one of the adopted approaches followed by a number of state utilities in the country with slight variation based on their local conditions and circumstances. When an LT Industrial consumer opts for Maximum Demand based tariff and executes agreement for Contract Demand, Board is responsible for meeting only the contracted demand of the consumer and not his connected load. Hence no case is made out against the principle of linkage of 'Contract demand' to 'Connected Load' of LT Industrial Consumers opting for Optional Demand Based Tariff and should be treated on the same lines as of HT and EHT consumers. Hence penalizing the consumer based on connected load as per the clause in the agreement is not logical. Appropriate changes have to be made in the agreement to remove the penalization clause based on unauthorized connected load.

Order

Kerala State Electricity Supply Code, 2005 shall be amended for the definition of 'Connected Load' by modifying the last sentence of clause 2(1)(l) as " In the case of LT Connections opting for Maximum Demand Based tariff, HT connections and EHT connections, the Contract Demand shall be treated as Connected Load". Appropriate changes shall be made in Clause 51 in the KSEB Terms and Conditions of Supply, 2005 to remove penalization of unauthorized additional connected load of LT Industrial LT IV and LT Commercial (LT VII (A) &(C)) Consumers having connected load more than or equal to 20 kW who opt for maximum demand based tariff. Based on this the agreement clause shall be modified.

3.2 Add a new proviso in Annexure E TOD Tariff for LT Industrial Consumers Schedule of Tariff and Terms and Conditions for retail supply by KSEB with effect from 01-01-2010 as **“For those who opt for maximum demand based tariff, the contract demand shall be treated as connected load.”**

3.2.1 The petitioner stated that in Annexure D the third condition is ‘For those who opt for Maximum Demand based tariff, the Contract Demand shall be treated as connected load. In certain offices of KSEB since this condition is not available in Annexure E they say that they have confusion. In order to avoid this confusion the same proviso “For those who opt for maximum demand based tariff, the Contract Demand shall be treated as connected load. May be modified and added in Annexure E as “For those who opt for maximum demand based tariff, the Contract Demand shall be treated as connected load.’

3.2.2 KSEB stated that for billing purpose, the Hon Commission has clearly mentioned in Annexure D of the tariff notification that “for those who opt for maximum demand based tariff , the contract demand shall be treated as connected load”. It is also mentioned in Annexure E that “TOD scheme is applicable as an optional scheme for LT industrial consumers who have opted for maximum demand based tariff and having contract demand of 30 kVA and above. Thus it is evident that for consumers opting for TOD tariff, the Contract Demand shall be treated as connected load. If further clarity is required, the following may be added in “Other conditions of Annexure E of the tariff order.

“For the purpose of billing, the Contract Demand shall be treated as connected load for those who opt TOD tariff”

3.2.3 Commissions’ Analysis - In Annexure D of the tariff notification it is clearly stated that “For those who opt for maximum demand based tariff, the contract demand shall be treated as connected load.” It is also mentioned in Annexure E “ToD scheme shall be applicable as an optional scheme for LT industrial consumers who have opted for maximum demand based tariff and having contract demand of 30 kVA and above . Still for more clarity “For those who opt

for maximum demand based tariff, the contract demand shall be treated as connected load.” shall be included in Annexure E also

Order

Commission orders that the clause “For those who opt for maximum demand based tariff, the contract demand shall be treated as connected load ”shall be included in Annexure E of this order on Schedule of Tariff and Terms and Conditions for Retail Supply by KSEB with effect from 1.1.2010.

3.3 Add a phrase 100 kVA for those who opt for maximum demand based tariff against supply voltage 415 V below maximum contract demand in 4(5)(a) of Supply Code, 2005.

3.3.1 Petitioner stated that as per Clause 4(5)(a) of Supply Code the Supply Voltage for different connected loads for new connections are given in the table. After 100 kVA maximum connected load the Contract Demand is the criteria for change of voltage level. The logic should be applied for 415 V category and along with 100 kVA Contract Demand shall also be made as criteria for conversion from LT to HT ie in the column ‘ maximum contract demand’ a new phrase is to be introduced as “ 100 kVA for those who opt for maximum demand based tariff with corresponding change in (b) “ For new consumers connected load permitted under LT may be limited to 100 kVA. But consumers existing as on the date of implementation of Kerala Electricity Supply Code, 2005 may be permitted to operate in LT up to a load of 150 kVA or 150 kVA maximum demand for those who opt maximum demand based tariff.

3.3.2 KSEB pointed out that for suggesting amendments in Supply Code, Code Review Panel with representation from various groups of consumers had been fixed as per Clause (3) of Supply Code. Representatives of LT Industrial category has also been included in the existing Code Review Panel. The amendments required in the Supply Code for specifying 100 kVA as the maximum contract demand for obtaining LT connection for those who opt for Maximum Demand Tariff and the

non requirement of separate transformer for loads above 50kVA could be placed before the Code Review Panel. It may be noted that KSEB has excluded consumers in Industrial Parks from installing separate transformers for loads above 50 kVA, in cases where transformers have adequate capacity. Since the same would be beneficial to other consumers also, KSEB had filed petition before the Hon Commission to introduce Development Charges in such cases.

3.3.3 Commissions Analysis- When LT consumers opt for the Maximum Demand based tariff the maximum limit of Contract Demand is 100 kVA. Hence in the table as per Sub Clause (5)(a) of Clause 4 of Supply Code Maximum Contract Demand Column for 415 V can be shown as 100 kVA. But extending the limit to 150 kVA for LT consumers having Maximum Demand Based Tariff cannot be allowed as the load limit for LT supply is already fixed as 100kVA.

Order

In the table as per Sub Clause (5)(a) of Clause 4 of Kerala Electricity Supply Code 2005, Maximum Contract Demand for 415 V shall be shown as 100 kVA.

3.4 Correct 5(b) of Supply Code as 'For new consumers connected load permitted under LT may be limited to 100 kVA. But consumers existing as on the date of implementation of Kerala Electricity Supply Code, 2005 may be permitted to operate in LT up to a load of 150 kVA or 150 kVA maximum demand for those who opt maximum demand based tariff.

3.4.1 Petitioner stated that a corresponding change is required in Clause 5(b) of Supply Code as:

"For new consumers connected load permitted under LT may be limited to 100 kVA. But consumers existing as on the date of implementation of Kerala Electricity Supply Code, 2005 may be permitted to operate in LT up to a load of 150 kVA or 150 kVA maximum demand for those who opt maximum demand based tariff".

3.4.2 KSEB pointed out that for suggesting amendments in Supply Code, Code

Review Panel with representation from various groups of consumers had been fixed as per Clause (3) of Supply Code. Representatives of LT Industrial category has also been included in the existing Code Review Panel. The amendments required in the Supply Code for specifying 100 kVA as the maximum contract demand for obtaining LT connection for those who opt for Maximum Demand Tariff shall be presented before the Code Review Panel.

3.4.3 Commissions Analysis When LT consumers opt for Maximum Demand based tariff the maximum limit of Contract Demand is 100 kVA .But extending the limit to 150 kVA for LT consumers having Maximum Demand Based Tariff cannot be allowed as the load limit for LT supply is already fixed as 100kVA.

Order

Extending the capacity limit to 150 kVA for LT consumers having Maximum Demand Based Tariff cannot be allowed as the load capacity limit for LT supply is already fixed as 100kVA.

3.5 In Clause 4 Sub Clause (1) of KSEB terms and Conditions of Supply, the sentence before last sentence may be modified as ‘Outside Industrial Estate for loads of 50 kVA (50 kVA Maximum Demand in case of TOD metering) and above connection shall be effected only after installation of separate transformer of adequate capacity , the cost of which shall be recovered from the consumer.’

3.5.1 Petitioner stated that The Kerala State Electricity Board is not providing electric supply without installing separate transformer if the connected load is above 50 kVA. In Industrial Estates and in certain other places even when spare capacity is available KSEB is insisting for separate transformer. After pointing out this KSEB have released an order B.O. (FM) (Genl) No 1848/2010 (DPCII/AE/T&C of Supply 01/2009on 17-07-2010 enclosed as Encl-5 in which KSEB has agreed to give connection provided the promoter of Industrial Park gives an undertaking that any additional installation of transformers required in future inside the park will be carried out at their cost. Because of this additional requirement beneficiaries of the order are barred from getting respective benefits.

- 3.5.2 KSEB stated that Non requirement separate Transformer for loads above 50 kVA could be placed before the Code Review Panel, It may be noted that KSEB has excluded consumers in Industrial Parks from installing separate transformers for loads above 50 kVA, in cases where existing transformers have adequate capacity. Since same would be beneficial to other consumers also, KSEB had filed petition before the Hon Commission to introduce development charges in such cases, for which a favorable decision was not received. It is submitted that all related issues could be placed before the Code Review Panel and recommendation of the panel would be submitted to the Hon. Commission for approval.
- 3.5.3 Commissions Analysis - The objective of this provision is to improve the HT & LT ratio especially in the urban areas to improve the distribution system and reduce the system losses by installation of separate transformer. Since the transformer is taken into KSEB system and is owned and maintained by KSEB the spare capacity if available can be used to provide power to those consumers who have connected load less than 50 kVA

Order

The Clause 5 (1) (c) of KSEB Terms and Conditions of Supply, 2005
“5(1) (c) For loads of 50 kVA and above connection shall be effected only after installation of separate transformer of adequate capacity, the cost of which shall be recovered from the consumer. In such cases the consumer shall provide the space for erecting such transformer.”

shall be retained without any change.

- 3.6** In B.O (FM) No 1848/2010 (DPC II/AE/T&C of Supply 01/2009) dated 17-07-2010 the last paragraph , portion of the sentence starting with ‘ and ‘ and if promoter of Industrial Parks gives undertaking that any additional installation of transformers required in future inside the park will be carried out at their cost ‘may be removed.

- 3.6.1 Petitioner stated that The Kerala State Electricity Board is not providing electric supply without installing separate transformer if the connected load is above 50 kVA. In Industrial Estates and in certain other places even when spare capacity is available KSEB is insisting for separate transformer. After pointing out this KSEB have released an order B.O. (FM) (Genl) No 1848/2010 (DPCII/AE/T&C of Supply 01/2009) on 17-07-2010 enclosed as Encl-5 in which KSEB has agreed to give connection provided the promoter of Industrial Park gives an undertaking that any additional installation of transformers required in future inside the park will be carried out at their cost. Because of this additional requirement beneficiaries of the order are barred from getting respective benefits.
- 3.6.2 KSEB stated that Non requirement separate Transformer for loads above 50 kVA could be placed before the Code Review Panel, It may be noted that KSEB has excluded consumers in Industrial Parks from installing separate transformers for loads above 50 kVA, in cases where existing transformers have adequate capacity. Since same would be beneficial to other consumers also, KSEB had filed petition before the Hon Commission to introduce development charges in such cases, for which a favorable decision was not received. It is submitted that all related issues could be placed before the Code Review Panel and recommendation of the panel would be submitted to the Hon. Commission for approval.
- 3.6.3 Commissions Analysis - The objective of this provision is to improve the HT & LT ratio especially in the urban areas to improve the distribution system and reduce the system losses by installation of separate transformer. Since the transformer is taken into KSEB system and is owned and maintained by KSEB the spare capacity if available can be used to provide power to those consumers who have connected load less than 50 kVA. Exemption as per B.O. (FM) (Genl) No 1848/2010 (DPCII/AE/T&C of Supply 01/2009) on 17-07-2010 in which KSEB has agreed to give connection provided the promoter of Industrial Park gives an undertaking that any additional installation of transformers required in future inside the park will be carried out at their cost, shall be continued.

Order

The exemption as per B.O. (FM) (Genl) No 1848/2010 (DPCII/AE/T&C of Supply 01/2009 dated 17-07-2010 by which KSEB has agreed to give connection provided the promoter of Industrial Park gives an undertaking that any additional installation of transformers required in future inside the park will be carried out at their cost shall be continued.

3.7 A direction may be given to KSEB to accept survey details and certification from Industries Department for effecting connection

3.7.1 Petitioner stated that as per single window clearance Board Act and Industrial Township Development Act no separate approval is required from local bodies for establishing an industry in Industrial Estate. Industries Department is ready to give a suitable certification identifying the industry and building. Hence KSEB may be directed to accept the certification of Industries Department for effecting service connection.

3.7.2 KSEB stated that certification from local bodies is essential obtaining service connection to any premises as per KSEB Terms and Conditions of Supply approved by the Commission. It is intended to establish that electric supply is provided to an authorized construction / building, owned or occupied by the owner of the premises or any person authorized by him etc. Providing electric connection to buildings for industrial purpose without permission from local self Governments could be injurious to the interest of general public. The petitioner has not pointed out any reason for excluding the approval of local bodies in the petition. KSEB feels that the certification of local bodies is an essential pre requisite for providing service connection based on various experiences in the field. permission from local self Governments could be injurious to the interest of general public. The petitioner has not pointed out any reason for excluding the approval of local bodies, in the petition. KSEB feels that certification of local bodies is an essential pre requisite for providing service connection based on various experiences in the field.

3.7.3 Commissions Analysis - Panchayat Raj Sec 1 (2) states that 'It extends to the whole of State of Kerala except the areas which are within the limits of the Cantonments, Nagar Panchatyats, Municipal Councils, Municipal Corporations and the Industrial Areas of the State'

The Kerala Industrial Single Window Clearance Boards and Industrial Township Area Development Act Sec 6 states

'Exemption from licenses etc .- Notwithstanding anything contained in any law for the time being in force all industrial undertakings being established or proposed to be established in industrial areas shall be exempted from obtaining permits from Municipalities or Grama Panchayats, Town Planning Department or Development Authorities for construction of buildings for starting an industrial undertaking.'

Sec 18 States "Overriding effect of the Act: - Upon any area being declared an industrial area under provision of this Act, such area, as included in the master plan or the Zonal development plan under the Town Planning Act (IV of 1108) or the Madras Town Planning Act, 1920 (Madras Act VII of 1920) or any other Act enacted by the Kerala State Legislature, shall with effect from the date of such declaration be deemed to be excluded from any such plan."

Hence all industrial undertakings being established or proposed to be established in Industrial Area declared under provisions of The Kerala Industrial Single Window Clearance Boards and Industrial Township Area Development Act. 1999 shall be exempted from producing clearances and certificates from Local bodies for obtaining electric connection.

Order

All industrial undertakings already established or proposed to be established in Industrial Area declared under provisions of The Kerala Industrial Single Window Clearance Boards and Industrial Township Area Development Act 1999 shall be exempted from producing clearances and certificates from local bodies for construction of buildings for obtaining electric connection. They shall produce a certificate from

District Industries Officer identifying the industry and building. KSEB is directed to issue an executive order effecting the above provision.

3.8 A Clarification/ Declaration may be given as pasteurization is a process which is classified as Industry and Industrial Tariff shall be applicable for the same from the date of inception or starting of the Industry.

3.8.1 The petitioner stated that till 1-12-07 the date from which ' The Schedule of Tariff and Terms and Conditions for Retail Supply by KSEB was first published by KSERC, the milk chilling/ freezing/ Cold Storage activity has been considered as industrial activity.

As per tariff order on 1-12-07 under LT IV Industrial Tariff sub Clause (e) 'the dairy farms/ milk chilling plant with or without chilling/freezing/cold storage activity shall be charged under industrial category provided the chilling/ freezing/cold storage load is limited to 20% of total connected load. If it exceeds 20%, LT VII (A) Tariff shall be applicable".This clause is addressing dairy farms / chilling plant with or without chilling /freezing/ cold storage activity.whose connected load is below 20 kW. It is also ordered that the change shall be effective from the date of order ie June 21. 2010.

The above clause is applicable only to chilling/freezing/cold storage loads. Because as per general law / natural justice , penalization can only be with prospective effect. It cannot be with retrospective effect.

The last sentence in the order of Petition No TP-76 in the matter of Tariff applicable to LT Milk Processing Unit/ Milk Chilling Plant dated 08-03-2010", ' The change shall be effective from date of this order only' is misinterpreting by KSEB and charging commercial tariff for all industry having pasteurization from 1-12-2007

3.8.2 KSEB stated that the Hon Commission while disposing petition No TP 76 in the matter of tariff applicable to LT Milk Processing Unit / milk chilling plant filed by the same petitioner had clearly stated that " the change shall be effective from the date of this order only" which is 21-06-2010. Prior to this, the tariff applicable

was as per tariff order issued by the Commission dated 26-11-2007. Hence it is requested that the plea of the petitioner may be rejected in toto.

3.8.3 Commissions Analysis - In the Order on TP-76 dated 21-06-2010 of the Commission it was stated that

“The complete processing of Milk by pasteurization storage, packing etc is to be considered as industry and LT IV Tariff shall be applicable to them. Units having cold storage chilling, freezing and or packing alone, shall be treated as Commercial and LT VII (A) Tariff shall apply. The Clause “But dairy farms/ milk chilling plant with or without chilling / freezing /cold storage activity shall be charged under industrial category provided the chilling / freezing /cold storage load is limited to 20% of total connected load. If it exceeds 20% LT VII a Tariff shall be applicable. “shall be deleted and the order amended accordingly.

The Commission order dated 21.6.2010 can have only prospective effect. Hence the clause that dairy farms/ milk chilling plant with or without chilling / freezing /cold storage activity shall be charged under industrial category provided the chilling / freezing /cold storage load is limited to 20% of total connected load shall be applicable during the period 1-12-2007 to 21-06-2010

Orders

Retrospective effect cannot be allowed to the Order on TP-76 dated 21-06-2010 of the Commission which states that the complete processing of Milk by pasteurization storage, packing etc is to be considered as industry and LT IV Tariff shall be applicable to them.

3.9 A system for calculating ‘unit’ consumption of Electricity based on kVAh may be implemented.

3.9.1 Petitioner has stated that at present kWh is the basic parameter for measuring electricity consumption in ‘unit’. In kWh metering system ‘units’ indicated will be less at lower PF which will adversely affect KSEB. In HT there is a provision for

penalizing for low PF. In LT it is not available. It is better to have kVAh based system of measuring 'units' so that the consumer will always try to have good capacitor fixed and to have unity power factor.

3.9.2 KSEB stated that introduction of measuring electricity consumption in terms of kVAh is an entirely different approach and revenue implication of the proposal needs to be studied in detail. Transfer to kVAh billing implies that consumer is free to use any power factor in his system. Lower power factor always lead to higher technical losses in the distribution system and is detrimental to overall interest of power sector as well as to other consumers. Implementation of a new system without detailed study and analysis would be premature. The petitioner does not seem to have undertaken any study on the various implications – both technical and financial – nor has furnished any report on the same. Without such a study the present proposal may not be accepted.

3.9.3 Commissions Analysis - At present, consumption billing is being done for active power and the effect of reactive power is considered in the form of power factor penalty. Reactive power in the system is used to maintain the power factor in the grid but causes additional line losses. Introduction of kVAh based tariff penalizes reactive power drawl from the system .The time had come to dispense with the power factor penalty through a change in the billing procedure from “kWh (kilowatt hour) based billing” to “kVAh (kilo volt ampere hour) based billing”. kVAh-based billing is more scientific and is already being implemented in some states like New Delhi and Uttaranchal. KSEB expressed concern that without detailed analysis of the implications both technical and financial the implementation of the new concept will be a premature step. Hence Commission considers that it will be appropriate that KSEB conduct a detailed study on the feasibility and repercussions of the introduction of such a tariff and submit a report to the Commission within six months from the date of this order.

Order

KSEB shall be conduct a detailed study on the feasibility and ramifications of the introduction of kVAh based tariff and submit a report to the Commission within six months from the date of this order.

4. Orders of the Commission

- 1) Kerala State Electricity Supply Code, 2005 shall be amended for the definition of 'Connected Load' by modifying the last sentence of clause 2(1)(l) as " In the case of LT Connections opting for Maximum Demand Based tariff , HT connections and EHT connections, the Contract Demand shall be treated as Connected Load. Appropriate changes shall be made in Clause 51 in the KSEB Terms and Conditions of Supply, 2005 to remove penalization of unauthorized additional connected load of LT Industrial LT IV and LT Commercial LT VII (A) &(C) Consumers having connected load more than or equal to 20 kW who opt for maximum demand tariff. Based on this the agreement clause shall be modified.
- 2) Commission orders that the clause "For those who opt for maximum demand based tariff, the contract demand shall be treated as connected load"shall be included in Annexure E of the schedule of Tariff and Terms and Conditions for Retail Supply by KSEB with effect from 1.1.2010.
- 3) In the table as per Sub Clause (5) (a) of Clause 4 of Kerala Electricity Supply Code 2005 , Maximum Contract Demand for 415 V shall be shown as 100 kVA.
- 4) Extending the capacity limit to 150 kVA for LT consumers having Maximum Demand Based Tariff cannot be allowed as the capacity limit for LT supply is already fixed as 100kVA.
- 5) The Clause 5 (1) (c) of KSEB Terms and Conditions of Supply, 2005

"5(1) (c) For loads of 50 kVA and above connection shall be effected only after installation of separate transformer of adequate capacity, the cost of which

shall be recovered from the consumer. In such cases the consumer shall provide the space for erecting such transformer.”

shall be retained without any change.

- 6) The exemption as per B.O. (FM) (Genl) No 1848/2010 (DPCII/AE/T&C of Supply 01/2009 on 17-07-2010 in which KSEB has agreed to give connection provided the promoter of Industrial Park gives an undertaking that any additional installation of transformers required in future inside the park will be carried out at their cost shall be continued
- 7) All industrial undertakings already established or proposed to be established in Industrial Area declared under the provisions of The Kerala Industrial Single Window Clearance Boards and Industrial Township Area Development Act. 1999 shall be exempted from producing clearances and certificates from local bodies for construction of buildings for obtaining electric connection. They shall produce a certificate from District Industries Officer identifying the industry and building. KSEB is directed to issue an executive order effecting the above provision.
- 8) Retrospective effect shall not be allowed to the Order on TP-76 dated 21-06-2010 of the Commission which states that the complete processing of Milk by pasteurization storage, packing etc is to be considered as industry and LT IV Tariff shall be applicable to them.
- 9) KSEB shall conduct a detailed study on the feasibility and ramifications of the introduction of kVAh based tariff and submit a report to the Commission within six months from the date of this order.

Sd/-
Mathew George
Member(Fin)

Sd/-
P.Parameswaran
Member(Engg)

Sd/-
K.J.Mathew
Chairman

Approved for issue

Secretary