

FORM 2
[See Regulation 24(5)]

BEFORE THE KERALA STATE ELECTRICITY REGULATORY COMMISSION

COMPLAINT NO:

IN THE MATTER OF:

Removal of difficulties in establishing Wind Energy generation and Solar Energy generation in different part of Kerala by SME sector for our own use and third party sale.

**NAME AND FULL ADDRESS
OF COMPLAINANT/ APPLICANT:**

Petition is filed by : N.V. Muhammed Ashraf,
President, KSSIA, Ernakulam
The Kerala State Small Industries Association
Ernakulam District,
3rd floor, Penta Estate
Janatha Jn, Palarivattom, Cochin-682025
Phone:0484-2333428
E-mail:kssia@kssiaekm.com,

**NAMES AND FULL ADDRESSES
OF RESPONDENTS**

- : 1. Kerala State Electricity Board,
Vydyuthi Bhavanam, Pattom,
Thiruvananthapuram.
Pin No. 695004.
Represented by the Secretary.
2. The Chairman,
Kerala State Electricity Board,
Vydyuthi Bhavanam, Pattom,
Thiruvananthapuram.
Pin No. 695004.

AFFIDAVIT VERIFYING PETITION:

I, N.V. Muhammed Ashraf, Son of M. Macky aged 45 years residing at Busthan, behind Scemas Talkies, A.M Road, Perumbaoor, do solemnly affirm and state as follows:

1. I am a complainant/Petitioner in the above matter
2. The statement made in the pages of complaint/petition application herein now shown to me and marked with page no. 1 to are true to my knowledge and the statement made in nos. of pages are based on information received and I believe them to be true.

Solemnly affirmed at on this day ofthat the content of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

Complainant/Petitioner

N.V. Muhammed Ashraf,
President, KSSIA, Ernakulam
The Kerala State Small Industries Association
Ernakulam District,
3rd floor, Penta Estate
Janathajn, Palarivattom, Cochin-682025
Phone:0484-2333428
E-mail:kssia@kssiaekm.com,

Identified before meNotary

FORM 1
[See Regulation 24(3)]
General Heading for petitions
BEFORE THE KERALA STATE ELECTRICITY
REGULATORY COMMISSION

PETITION NO:

IN THE MATTER OF:

Removal of difficulties in establishing Wind Energy generation and Solar Energy generation in different part of Kerala by SME sector for our own use and third party sale.

Fees Rs.10,000/- (Rupees Ten Thousand only) as per Annex II, Reg.18, schedule of fees see Regulation 64 (1) of Kerala State Electricity Regulatory Commission (Conduct of Business) Third Amendment Regulation 2014, is enclosed as DD drawn in favor of the Secretary, KSERC, payable at Trivandrum from Union Bank, Edathala Branch (Branch Code:560804).

REFERNCE:

- a. Electricity Act 2003
- b. CERC : Indian Electricity Grid code 2010
- c. CERC : Terms and conditions for tariff determination from Renewable Energy Sources Regulations 2012.
- d. CERC : Determination of the Levellised Generic Tariff for FY 2017-18 dated 31.05.2017.
- e. CEA : Grid Standard Regulations 2010
- f. CEA : Installation and Operation of Meters Regulation 2006.
- g. KSERC : Electricity Grid code 2005 (KSEGC 2005)
- h. KSERC : Renewable energy Regulations 2015
- i. KSERC : Renewable energy Amendment Regulations 2017
- j. KSERC : Detailed Procedure for Grant of Connectivity & Open Access in Intra-State Transmission System dated 21.04.2015

- k. KSERC : Grid Interactive Distributed Solar Energy System Regulation 2014
- l. KSERC : Supply of Power from Captive Generating Plants to Distribution licensees Regulations 2007
- m. National Electricity Policy dated 12.02.2005
- n. Tariff policy dated 28.01.2016
- o. Kerala Solar Energy Policy 2013
- p. Wavier of inter-state transmission charges and losses on transmission of the electricity generated from solar and wind sources of energy under Para 6.4(6) of the revised Tariff Policy.

**NAMES AND FULL ADDRESSES
OF RESPONDENTS:**

1. Kerala State Electricity Board,
VydyuthiBhavanam, Pattom,
Thiruvananthapuram.
Pin No. 695004.
Represented by the Secretary.
2. The Managing Director,
Kerala State Electricity Board,
VydyuthiBhavanam, Pattom,
Thiruvananthapuram.
Pin No. 695004.

INTRODUCTION

Ours is the only Kerala Government Recognized Organization, taking care of the interest of Small Scale Industries in Kerala. After Agriculture we are the people generating maximum employment in the state. As everybody knows Agriculture and Small Scale Industry is the back bone of a nation and are considered as Priority Sector.

We are also contributing to the better load factor of KSEB because most our units are functioning during the day time and their power requirement in the evening is very minimum limited to security lighting i.e. during the evening hours (6pm to 10pm) when the demand is almost double our consumption is very low. By working during day time, we are contributing to the base load factor requirement of KSEB. By supplying 8% of the generated Power, KSEB is collecting 11% of the revenue from us i.e. Their return is 37%. $\{(11-8)/8$

x100} While HT consumers are consuming 31% and their contribution to the revenue is only 36% i.e. their proportionate contribution is only 16% $\{(36-31)/31 \times 100\}$. In the last Tariff Petition KSEB has highlighted the requirements of increasing the number of Small Scale Industries and their consumption for having a better Load Factor.

The Electricity tariff being paid by us as fixed charge for HT consumer is Rs.300/- per kVA and as energy charge is Rs.5.50/- per kWh. Our members are interested in establishing Wind and Solar Generators at different part of Kerala for own use and also for third party sale in MSME sector.

In order to protect their interest, consumers interest and also to have more electricity generation in this State we submit this petition before Hon. Kerala State Electricity Regulatory Commission.

SYNOPSIS

The Renewable Energy Purchase Obligation (RPO) target fixed by Hon. Commission is 7.5% (Excluding Hydro Power), out of that 1.5% is exclusively reserved for Solar Power. KSEBL, while filing their objections against the draft of the KSERC (Renewable Energy) Amendment Regulations, 2016, stated that there will be a short fall in Non - Solar RPO by 690MU and for compensating they require 189.6MW, investing Rs.1327Crore. They have also stated that for meeting solar RPO obligation of 689.24MU they require 504MW Solar Plant costing Rs.2673Crore. They have also expressed their concern about the possible tariff hike and also their difficulty in mobilizing huge capital Rs.4400Crore.

Taking in to consideration the huge machinery and mechanism of KSEBL the actual project cost for establishing wind and solar at scattered locations will be much higher than their projections. If we compare the proportionate RE generation with other states, Kerala may be ranking as lowest. It is not due to the inadequacy of capital or lack of entrepreneurship. The only reason is the delay in processing application and lack of clarity in certain areas of Regulations and Board Orders. Hon. Commission may have leniency towards the 'Developers/Prosumer/Generators', while licensee should extend their full corporation by way of establishing Pooling substations, paying reasonable charges, and by reducing processing time.

STATEMNT OF FACTS

1. The Electricity Act Sec.61, empowers the Commission to 'specify the terms and conditions for the determination of the renewable energy tariff', guided by Sec 61(h) "*the promotion of co-generation and generation of electricity from renewable sources of energy*", and Sec.61(i), "*the National Electricity Policy and tariff policy*". This shows that Hon. Commission is the only authority for specifying terms and conditions for the determination of the tariff for renewable energy and its promotion.
2. The Electricity Act Sec.62, empowers the Commission to 'determine the tariff', complying with the provisions of the Act 2003, as per Sec 62(a) "*supply of electricity by a generating company to a distribution licensee*". This shows that Hon. Commission is the only authority for fixing the tariff of electricity from renewable source of energy.
3. The Electricity Act 2003, Sec.86, 'discharges the functions of State Commission', complying with the provisions of the Act 2003, as per Sec.86(e), "*promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee*".
4. The Electricity Act Sec.3 (1) empowers the Central Government to formulate the tariff policy. Sec 3 (3) of the Act enables the Central Government to review tariff policy from time to time. Accordingly the Central Government revised the tariff policy to be effective from 28.01.2016.
5. The Tariff Policy 2016, Clause 1.2 "*set the goal of adding new generation capacity*". Clause 1.3 "*to attract adequate investment in power sector, by providing appropriate **return on investment***", Clause 1.4, "*accelerated development of the power sector and its ability to attract necessary investments calls for consistent regulatory approach*", Clause 2.3, "*the Regulatory Commission shall be guided by the principles and methodologies specified by Central Commission for determination of tariff applicable to generating companies*".
6. Accordingly Hon. Commission have come out with the Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015, assuring **return on investment** contemplated in Clause 1.3 of Tariff Policy 2016. Subsequently it was amended on 02.11.2017 confirming the percentage of RPO obligation as 7.5% of the total consumption in which 1.5% is Solar.
7. The developers are establishing Solar and Wind farms with an intention to sell the Electricity to a third party utilizing the transmission and distribution facility and lines of respective utility and licensees. Even through open access permission permits the

above purpose, as per the present Regulations the 'Developer/Generator/Buyer' will have to bear with Wheeling Charge and Cross Subsidy Surcharge. A 'Developer/Prosumer/Generator' should be exempted from Wheeling Charge and Cross Subsidy Surcharge if he surrender RPO Obligation.

GROUND

We got ample facility for Solar SPV generation even in large scale as hybrid generation at Ramakkalemdu and Palakkad. The cost of the land is prohibitive and hence Solar can be planned along with Wind. The Solar Regulation and Policy is more viable and friendly. For harnessing more Solar Power through 'Prosumers/Developers/Generators', the major requirements are:-

- a. Enhancing the upper capacity limit of Solar Generation up to 3MWp in KSERC (Grid Interactive Solar Energy System) Regulations 2014 considering the capacity of 11kV/ 22kV/33kV Distribution lines.
- b. The KSERC (Grid Interactive Solar Energy System) Regulation 2014, and its Amendment Regulation,2016 is very specific and clear but the capacity of the SPV that can be connected to the feeder cable is the average load between 8AM – 4PM. But there are LT consumers having their own Transformer or Transformer installed by Licenses exclusively for that Consumer feeding directly to 11kV/22kV/33kV HT line. In this case if the permission is the average load on that particular Transformer from 8AM-4PM, the capacity of the Solar PV that can be connected is getting reduced (having dedicated Transformer). Since other consumers are not connected on the LT side of the particular Transformer, the feeder capacity can be allowed by the Commission while deciding the capacity of the SPV.
- c. When SPV is connected to HT consumers having dedicated feeder (11kV/22kV/33kV), while limiting the capacity of the SPV considering the average load on the feeder the capacity of the SPV is reduced. Hence in this case permission may be granted to connect the maximum possible capacity SPV considering the capacity of the Substation, limiting to the maximum full load current of the feeder.
- d. Even though the Kerala Solar Energy Policy 2013 permits wheeling of Solar energy without open access charges, wheeling charges, and it is not properly precipitated in RE and Solar Energy Regulations. Considering the present land cost and plant cost,the license should either buy the Solar Energy at

Preferential Tariff, decided by the Hon.Commission or should permit the Prosumer the wheeling of Solar Energy without attracting Wheeling charges and for Generators and Developers for the third party sale without attracting Wheeling and Cross Subsidy surcharge.

In Kerala, Wind potential is available only at Ramakkalemedu, and Palakkad. At Ramakkalemedu the major problem is in accessibility and hilly terrain, because of which we can have only Turbines of 250kW each. The evacuation is also very difficult because the capacity of 66kV Nedumkandam Substation is very limited, only 20MW. The proposed 110kV line enhancement and Bethel 110kV Substation is dragging due to various reasons. Palakkad, 2MW, WTG's are viable and evacuation facility is available. For harnessing more Wind Power through 'Prosumers/Developers/Generators', the major requirements are:-

- a. The Wind power cannot be directly injected in to the consumer feeder. It will be at Remote place either selling the electricity to the licensee or wheeling out the same through the infrastructure provided by the licensee. For meeting the RPO obligation of the licensee and for more Renewable Energy Generation the wheeling charge of wind generation may also be exempted in line with the wheeling charge of Solar.
- b. Considering the present land cost and plant cost the license should either buy the Solar Energy at Preferential Tariff, decided by the Commission or should permit the Prosumers/Generators/Developers the wheeling of Wind Energy without attracting Wheeling charges and Cross Subsidy surcharge in case of third party sale.
- c. The Government of India Ministry of Power, in order dated 30.08.2016 and in its continuation, order dated 14.05.2017, have waved inter-state transmission charges and losses on transmission of the electricity generated from solar and wind sources of energy under Para 6.4(6) of the revised Tariff Policy till 31.12.2019.

RELIEF SOUGHT

SOLAR

1. The upper limit of 1MWp capacity in case of Prosumers complied with Grid Interactive Distributed Solar Energy Regulation may be enhanced to 3MWp.
2. Consider Substation capacity for injecting infirm power to the dedicated feeder of an HT consumer having dedicated feeder.

3. Consider the HT feeder capacity for injecting infirm power to the HT feeder, by an LT Consumer having own Transformer or Transformer installed by Licenses exclusively for that Consumer.
4. Direct License either to buy the Solar Energy at preferential tariff or permit an IPP to sell the electricity to a third party without attracting Wheeling Charge and Cross Subsidy Surcharge.

WIND

1. Permit CPP to Wheel out wind energy without attracting wheeling charge.
2. Direct License either to buy the Wind Energy at preferential tariff or permit an IPP to sell the electricity to a third party without attracting Wheeling charge and Cross Subsidy surcharge.

Considering the very low Renewable Energy Generation in the State, requirement of adding more RE Generation to the Grid and minor modifications in Regulations, Hon. Commission may arrange for a public hearing at the earliest convenience, and our grievance may be addressed.

NOMINATION OF REPRESENTATIVE

I, N.V. Muhammed Ashraf, President, The Kerala State Small Industries Association (KSSIA), Ernakulam District, hereby nominate Sri. Shaji Sebastian, Electricity Convener, KSSIA, Ernakulam Dist. , whose address is, Industrial Electricity Consumers Consortium, Manakkat Building 21/67-A, University Road, Kochi University.P.O.Kochi-682022, as my representative in all proceedings of this petition and confirm that any statement, acceptance or rejection made by him shall be binding on me. Our committee meeting held on date decided to authorize Sr. ShajiSebasitn for representing KSSIA, ErnakulamDst in this subject matter. He has signed below in my presence.

Signature of Representative

Signature of Petitioner

Shaji Sebastian

N.V. Muhammed Ashraf

Attested by Petitioner

N.V. Muhammed Ashraf