



Press Release

KSERC (Grid Interactive Distributed Solar Energy Systems) Regulations, 2014

Kerala State Electricity Regulatory Commission has issued on 10.06.2014, the KSERC (Grid Interactive Distributed Solar Energy Systems) Regulations, 2014. This will facilitate the consumer to establish solar energy systems connected to the distribution grid of the licensee and to avoid the high cost of storage battery required for the stand-alone solar energy systems which are now in use.

These regulations have several beneficial aspects to consumers as well as to licensees such as Kerala State Electricity Board Limited. Hitherto, the solar energy systems installed in the premises of the consumers were stand-alone systems, which are not connected to the distribution grid. The solar electricity generated by the solar photo voltaic panel has to be consumed by the consumer on real time basis and the balance solar electricity, if any, has to be stored in storage batteries with inverter. It is informed that the storage batteries for a solar panel of one kilowatt capacity, would cost about Rs.60,000/-. The battery has only a life span of about 4 years. The average cost of battery would thus work out to about Rs.15,000/- per annum. The optimum generation from a solar panel of one kilowatt capacity is only 1500 units per annum, at an average rate of about 5 units per sunny day. Considering the rainy season from June to August, the number of sunny days with optimum solar electricity generation would only be about 300. Thus cost of solar energy only on account of storage battery alone would work out to about Rs.10/- per unit. The cost on account of solar panel and associated equipment would be in addition to the above. These techno economic aspects rendered the installation of stand-alone solar energy system commercially unviable. By introduction of these regulations, the consumers can avoid such huge expenditure on storage battery. Further there is a decreasing trend in the price of solar photo voltaic panels and associated equipment. The consumers are given facility to wheel the solar electricity from the premises where it is generated to other premises for their consumption. They are also given facility to bank solar electricity in excess over their consumption.

Procedures and time limits have been specified for the services to be rendered by the distribution licensee, such as processing of application, intimation about feasibility for grid connection, approval and registration of scheme for solar energy system, testing and certification, remittance of application fee and registration

fee, execution of connection agreement and commissioning of solar energy system. The application fee has been fixed at Rs.1000/- and the rate of registration fee has been fixed at Rs.1000/- per kW. No other fee need be remitted for testing of solar energy system or for granting connectivity.

The distribution licensee will also stand to gain in many ways. Since the consumers generate energy and meet all or portion of their demand, the distribution licensee need not purchase equivalent quantity of costlier electricity. Further dependence on hydro-electricity during day time can be reduced so that generation of hydro-electricity during peak hours can be suitably increased. The transmission and distribution loss in the Kerala system is about 15%. Therefore for every 100 units of energy consumed by the consumer, the distribution licensee has to generate or purchase about 115 units of energy. Since the consumer generates and uses solar electricity in his own premises, transmission and distribution loss is reduced and the purchase cost of electricity can be reduced correspondingly. The distribution licensee will also get the advantage of Solar Renewable Purchase Obligation for the solar electricity generated by the consumer.

Thus the regulation is intended to achieve a win-win situation for both the consumer and the distribution licensee. In view of these facilities and benefits to the consumers and to the distribution licensees, it is expected that more consumers and distribution licensees will install more solar energy systems.

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