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Sikkim State Electricity Regulatory Commission

NOTIFICATION

Sikkim State Electricity Regulatory Commission (Demand Side Management)
Regulations, 2017.

No: 17/SSERC/DSM/2017

Dated: 08.11.2017

In exercise of the powers conferred by clause (zp) of sub-section (2) of section 181 of the Electricity Act, 2003 (36 of 2003), Sikkim State Electricity Regulatory Commission hereby makes the following regulations, namely, the Sikkim State Electricity Regulatory Commission (Demand Side Management) Regulations, 2017.

CHAPTER 1: GENERAL

1. Short Title, extent and Commencement

- (1) These Regulations may be called the "Sikkim State Electricity Regulatory Commission (Demand Side Management) Regulations, 2017";
- (2) These Regulations shall be applicable to the Distribution Licensees in the State of Sikkim;
- (3) These Regulations shall come into force from the date of its notification in the Official Gazette.

2. Definitions

In these Regulations, unless the context otherwise requires:

- (1) "Act" means the Electricity Act, 2003 (36 of 2003) as amended from time to time;
- (2) "Avoided Costs" means the incremental costs avoided by the distribution licensee on power purchases or in distribution on account of implementation of Demand Side Management (DSM) programmes;
- (3) "Baseline data" means the initial consumption and/or demand of electricity for the period prior to implementation of any DSM programme;
- (4) "Bureau" means the Bureau of Energy Efficiency established under sub-section (1) of Section 2

of the Energy Conservation Act, 2001;

- (5) "Commission" means the Sikkim State Electricity Regulatory Commission as referred to in sub-section (1) of Section 82 of the Act;
- (6) "Cost Effectiveness Index" means an indicator of the attractiveness of any investment in DSM programmes or when compared to the costs of energy produced and delivered in the absence of such an investment;
- (7) "Demand Side Management" (DSM) means the actions of a Distribution Licensee to facilitate change in the pattern of end-use i.e., the demand side of electricity, and shall include any increase/decrease in the demand, shifting the demand between high and low peak periods, managing the intermittent load demands, etc., with the objective of reducing the power purchase and/or Distribution Licensee's costs;
- (8) "Demand-Side Resource" means a saving in consumption (kWh) and/or demand (kW/kVA) available as a result of implementation of DSM programmes, expressed in terms of:
 - (i) Quantum – as to how much is available (kWh and/or kW);
 - (ii) Time – as to when it is available (at what time of day, on what days, in what season); and
 - (iii) The Cost – as to at what cost;
- (9) "DSM Resource Acquisition" means a mechanism for Distribution Licensee to implement DSM programmes through Consumers, Energy Service Companies, manufacturers / suppliers, or other organizations etc., for the resultant energy and load reduction;
- (10) "Energy Efficiency Measures" or "Energy Efficiency Programmes" means activities or programmes to stimulate consumers to use energy in a more efficient manner while maintaining a comparable level of service to the consumers;
- (11) "Energy Services Company" means a company which is in the business of providing energy efficient and load management equipment and/or services to the consumers and is approved by the Bureau or as may be approved by the Commission;
- (12) "Evaluation, Measurement and Verification" means activities to evaluate, measure and verify performance or other aspects of DSM/energy efficiency programmes or their market environment;
- (13) "Financial year" or "year" means the period beginning from first day of April in an English calendar year and ending with the thirty first day of March of the next year;
- (14) "Load Management": means any action/programme, including Demand Response programme, that will reduce or shift demand away from periods of peak/higher cost electricity to periods of non-peak/lower cost electricity periods;
- (15) "Load Research" means an activity embracing the measurement and study of the characteristics of electric loads to acquire a thorough and reliable knowledge of trends, and general behavior of the load characteristics of the consumers serviced by the electrical

industry;

- (16) "Quarter" means a period of consecutive three months from 1st January to 31st March, from 1st April to 30th June, from 1st July to 30th September and from 1st October to 31st December.

3. Interpretation

- (1) All other words and expressions used in these Regulations although not specifically defined herein, but defined in the Act, shall have the meaning assigned to them in the Act.
- (2) The other words and expressions used herein but not specifically defined in these Regulations or in the Act but defined under any law passed by the Parliament or any regulation issued by the Commission, applicable to the electrical industry in the State, shall have the meaning assigned to them in such law/regulation.
- (3) In case of any variation in interpretation of clause(s) of the English and Hindi version, the text of English version of these Regulations shall be authoritative.

4. DSM Objectives

Every Distribution Licensee shall undertake/implement DSM related policy /activity/programmes with an objective to lower the overall cost of electricity to the consumers of the Distribution Licensee as well as the Distribution Licensee, by economical and efficient use of resources, which shall include the measures/principles to:

- (1) control, reduce and influence electricity demand;
- (2) encourage consumers to amend their electricity consumption pattern both with respect to timing and level of electricity demand for efficient use of energy;
- (3) complement supply side strategies to help the utilities to avoid or reduce or postpone
a) costly capacity (generation, transmission & distribution network) additions
b) costly power purchases
- (4) reduce the environmental damage by reducing the emission of green house gases;
- (5) supplement national level efforts for implementation of various DSM programmes set out by the Bureau;
- (6) make strategic efforts to induce lasting structural or behavioral changes in the market that shall result in increased adoption of energy-efficient technologies, services, and practices;
- (7) protect the interest of the consumers and shall result in overall reduction in tariff for all the consumers.

5. DSM Guiding Principles

The Distribution Licensee shall:

- (1) design, develop and implement DSM programmes that supplement national level efforts, specifically those promoted by the Bureau ;
- (2) propose and implement such DSM programmes which shall:

- (i) be quick acting that provides long-term savings;
 - (ii) be cost effective ;
 - (iii) help to reduce peak demand, and associated costly power purchase, specifically in the urban centers;
 - (iv) include Demand Response initiatives persuading consumers to modulate their load shapes so as to flatten their load curve;
 - (v) bring in energy-efficiency in the consumer's premises;
 - (vi) directly or indirectly benefit the consumers in all segments from the programmes; and
 - (vii) not put undue burden on consumers, both non-participants (those who do not participate in the DSM programmes) and participants (those who participate in the DSM programmes);
- (3) formulate DSM programmes that shall provide sustainable benefits (market transformation), and shall enhance:
- (i) consumer's interest and inclination in adopting load management measures and energy efficient technology;
 - (ii) interest and the willingness of the intermediaries such as the banks to lend for energy efficiency measures, and
 - (iii) emergence or development of sustainable energy delivery entities;

6. Technical Potential, Load and Market Research Development and Baseline data

- (1) The Distribution Licensee shall carry out assessment of technical potential for DSM in its license area, based on the methodology developed by the Bureau, and as per the time lines as may be specified by the Commission from time to time;
- (2) The Distribution Licensee shall undertake market research to estimate market potential for specific energy efficiency technologies and applications, establish key performance indicators, and determine existing baseline market conditions;
- (3) The Distribution Licensee, shall develop Baseline Data for its area of supply and undertake all necessary measures required for the purpose including:
 - (i) load research to identify the target consumer segment(s) and end uses for DSM programmes to build the necessary database;
 - (ii) Any other activity, as may be specified by the Commission.
- (4) The Commission may engage an independent agency to verify any/all of the parameters for the Base Line Data.

7. DSM Targets

- (1) The Commission may, from time to time, set out DSM targets for the Distribution Licensee, based on the base line data established under Regulation 6 and considering factors such as consumer mix, load profile etc., and shall include:
 - (i) Percentage reductions in load growth;
 - (ii) Savings in kWh, reduction of load in kW;
 - (iii) Savings as a percent of total resources to meet the load;
 - (iv) Overall impact on tariff;
 - (v) Cost Effectiveness Index

8. Guidelines on DSM process

The Commission may, from time to time, issue guidelines on the DSM process, which may include:

- (1) Load and Market Research
- (2) Implementation of DSM programmes
- (3) Cost Effectiveness Assessment of DSM programmes
- (4) Monitoring and Reporting of DSM Plans and programmes;
- (5) Eligibility criteria for DSM programmes;
- (6) Methodology for setting DSM targets and funding levels;
- (7) Database development framework;
- (8) Preparation of DSM Plan / programmes;

9. DSM Plan and Programme preparation, submission and approval by the Commission

- (1) Distribution Licensee shall formulate a perspective DSM Plan and submit the same to the Commission for in-principle approval for the specified period and as per the time lines that may be specified by the Commission from time to time;
- (2) The perspective DSM plan shall include:
 - (i) A section outlining the goals sought to be achieved in the specified period
 - (ii) Annual DSM Plan for each year of the perspective plan period containing description of DSM programmes proposed to be undertaken and its prioritisation along with programme wise details like:
 - a) indicative cost & its cost effectiveness pursuant to these Regulations and any guidelines issued by the Commission from time to time;

- b) indicative baseline data and expected reduction in tariff and/or gain in energy efficiency;
 - c) consumer segments and estimated level of participation;
 - d) Implementation strategy and schedule including process / mechanism for execution e.g. Energy Service Companies, Bidding for DSM Projects, DSM Resource Acquisition, etc.;
 - e) expected payback period and mechanism for recovery of cost and performance incentives;
- (iii) Mechanism for Monitoring, evaluation and reporting of perspective plan and annual plan/programmes;
 - (iv) Programme/Plan for Training/Seminars/Workshops to increase consumer awareness
- (3) Selection and prioritisation of various programmes in the Annual DSM Plan shall be guided by the factors/eligibility criteria as may be specified by the Commission from time to time, including:
- (i) cost effectiveness guidelines issued by the Commission from time to time;
 - (ii) DSM Objectives identified under Regulation 4;
 - (iii) consistency of proposed programmes to ensure that it supplements/ compliments the National level efforts adopted by the Bureau;
 - (iv) its visibility potential for creation of awareness and overall acceptability to the consumers
- (4) As per approved perspective DSM plan in terms of Regulation 9(1), the Distribution Licensee shall develop DSM programmes along with detailed estimate etc., and submit the same to the Commission for approval every year;
- (5) While submitting the DSM programmes under Regulation 9(4), the Distribution Licensee may revise the priority, add/delete the DSM programmes prepared under Regulation 9 (1) keeping in view its necessity, requirements, feasibility etc.
- (6) DSM plans prepared under Regulation 9(1) & DSM programmes prepared under Regulation 9 (4) above, shall be consistent with these Regulations; the objectives set herein; relevant DSM measures developed /announced by the Bureau and in accordance with any directions / guidelines issued by the Commission from time to time.
- (7) Distribution Licensee shall not implement any DSM Programme, without the prior approval of the Commission under Regulation 9 (4).
- (8) Distribution Licensee shall obtain separate approval from the Commission for undertaking any activity, which is not forming part of the DSM programmes, but is essential for development of

the DSM Plan such as carrying out load research, consumer surveys etc.

- (9) The Commission may, at any time, direct any modifications, including addition and/or deletions in the proposed or on-going programmes to ensure consistency with the DSM Objectives. In all such cases the Commission shall allow Distribution Licensee adequate time:
 - (i) to notify the consumers of such modifications; and
 - (ii) for implementation of programmes with such changes, if found necessary;

10. Implementation of DSM Programmes

- (1) The implementation of the DSM programmes shall be undertaken in the manner as may be specified by the Commission from time to time.
- (2) The Distribution Licensee shall ensure that, at all times and under all circumstances, the continuity and consistency in implementation of DSM programmes is maintained without compromising on the interest of the consumers.

11. Mechanism for Cost Recovery of DSM Programmes

- (1) Distribution Licensee shall identify the net incremental costs, if any, associated with planning, design and implementation of the programmes.
- (2) Distribution Licensee may propose methodology for recovery of net incremental costs through tariff or any other mechanism.
- (3) Any DSM programme shall qualify for cost recovery subject to fulfilment of the conditions as may be specified by the Commission from time to time and the Distribution licensee has:
 - (i) obtained approval of the Commission under Regulation 9 prior to commencing its implementation;
 - (ii) Implemented it in accordance with the conditions as may be stipulated by the Commission in the approval or any other guidelines / directions issued in this regard;
 - (iii) Implemented it in a cost effective and self sustainable manner.
- (4) The Commission may direct the Distribution Licensee to undertake DSM programmes that may not be cost effective but is highly beneficial to the society. The Commission will make available resources for such programmes.

12. Monitoring and reporting of DSM Programmes

Distribution Licensee shall undertake monitoring and reporting of progress of all DSM programmes prepared under the plan (Perspective/Annual plan) as may be specified by the Commission while according the approval of such DSM programmes under Regulation 9 and any guidelines issued by the Commission from time to time.

13. Evaluation, Measurement and Verification (EMV) of DSM programmes

- (1) Distribution Licensee shall prepare a mechanism for evaluation, measurement and verification of savings from DSM programmes as per the guidelines as may be issued by the Commission from time to time.
 - (2) Distribution Licensee shall make available necessary information/data to the Commission or a third party assigned by the Commission to measure and verify the savings from DSM programmes.
14. The Commission, at its sole discretion and at the cost of the Distribution Licensee, may engage an independent agency, which is not undertaking any other engagement that could conflict with the interests of the consumers in the State, for evaluation/measurement/verification or any other matter relating to DSM programmes, as it may deem fit, of any/all of the DSM programmes, whether proposed for implementation or under implementation or completed. Completion report
- (1) The Distribution Licensee shall submit the following reports to the Commission on the progress of each of the DSM programme and respective expenses incurred on their implementation:
 - (i) Quarterly report for each Quarter within 15 days of the next Quarter; and
 - (ii) a consolidated annual report within 30 days of the end of the Financial Year.
 - (2) The Distribution Licensee will prepare and submit a detailed programme Completion Report and submit the same to the Commission within three months of completion of such programmes.
 - (3) The programme Completion Report shall include the programme expenses, achievements, outcome / output, constraints / difficulties faced, if any, conclusions, recommendations, lessons learnt and suggested way forward.

15. Incentives

The Commission may provide incentives to Distribution Licensees for achieving or exceeding DSM Objectives as identified in Regulation 4 of these Regulations.

16. Powers of the Commission

The Commission may exercise its following powers as it feels expedient for Demand Side Management:

- (1) **Powers to give directions:** The Commission may from time to time issue such directions/guidelines/orders as it may consider deemed fit/appropriate for the implementation of these Regulations
- (2) **Powers to relax:** The Commission may by general or special order, for reasons to be recorded in writing may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.
- (3) **Powers to amend:** The Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of these Regulations.

(4) Saving of inherent powers of the Commission

- (i) Nothing in these Regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for ends of justice or to prevent the abuse of the process of the Commission.
- (ii) Nothing in these Regulations shall bar the Commission from adopting in conformity with the provisions of the Acts, a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.
- (iii) Nothing in these Regulations shall, expressly or impliedly, bar the Commission to deal with any matter or exercise any power under the Acts for which no Regulations have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.

**Karma Tenzing
Secretary**