

HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION

SHIMLA

F.No.HPERC/437 (VI)

Dated: Shimla, the 30th September, 2011

NOTIFICATION

No. HPERC/- Whereas section 23 of the Electricity Act, 2003 provides that if the Appropriate Commission is of the opinion that it is necessary or expedient so to do for maintaining the efficient supply, securing the equitable distribution of electricity and promoting competition, it may, by order, provide for regulating supply, distribution, consumption or use thereof;

And whereas sub-section (1) of section 42 of the Electricity Act 2003 provides that it shall be the duty of a distribution licensee to develop and maintain an efficient, co-ordinated and economical distribution system in his area of supply and to supply electricity in accordance with the provisions contained in this Act;

And whereas clause 5.9.6 of the National Electricity Policy provides that in order to reduce the requirements for capacity additions, the difference between electrical power demand during peak periods and off-peak periods would have to be reduced. Suitable load management techniques should be adopted for this purpose. Differential tariff structure or peak and off peak supply and metering arrangements (Time of Day metering) should be conducive to load management objectives. Regulatory Commissions should ensure adherence to energy efficiency standards by utilities;

Now, therefore, in exercise of the powers conferred by sub-section (1) of section 181, read with section 23 and sub-section (1) of section 42 and clause (zp) of sub-section (2) of section 181, of the Electricity Act, 2003 (36 of 2003) and all other powers enabling it in this behalf, the Himachal Pradesh Electricity Regulatory Commission, after previous publication, hereby makes the following Demand Side Management regulations, namely:-

**The Himachal Pradesh Electricity Regulatory Commission
Demand Side Management Regulations, 2011**

1. Short title, applicability and commencement.

(1) These regulations may be called the Himachal Pradesh Electricity Regulatory Commission (Demand Side Management) Regulations, 2011.

(2) These Regulations shall be applicable to all the distribution licensees in the State of Himachal Pradesh in their respective areas of supply.

(3) These regulations shall come into force from the date of their publication in the Rajpatra, Himachal Pradesh.

(4) These regulations shall be construed harmoniously with the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011

2. Definitions.

In these regulations, unless the context otherwise requires,-

- (1) “Act” means the Electricity Act, 2003 (36 of 2003);
- (2) “Baseline data” means the initial base level consumption and/or demand for electricity for the Utility as a whole, targeted segments and at end use level, as the case may be before a DSM programme begins to provide a starting point for comparison for assessing programme impact;
- (3) “Bureau” means the Bureau of Energy Efficiency established under sub-section (1) of section 2 of the Energy Conservation Act, 2001 (Act No. 52 of 2001);
- (4) “Central Commission” means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
- (5) “Commission” means the Himachal Pradesh Electricity Regulatory Commission referred to in sub-section (1) of section 82 of the Act;
- (6) “Demand Side Management” or “(DSM)” means the measures taken by a distribution licensee affecting the activities beyond the consumer’s meter, with the objective of altering the end-use of electricity - whether it is to increase demand, decrease it, shift it between high and low peak periods, or manage it when there are intermittent load demands- in the overall interests of reducing the distribution licensee costs by making economic use of utility resources;
- (7) “DSM Master Plan” means the comprehensive demand side management plan prepared under regulation 5 and approved by the Commission;
- (8) “DSM Programme” means a demand side measure designed, developed and implemented by the distribution licensee;
- (9) “DSM Resource Acquisition” means a mechanism to implement DSM projects through customers, Energy Service Companies, Non-Government Organisations, manufacturers/ suppliers, or other private sector organizations, with payment made to them by the distribution licensee for the resultant energy and load reductions;

(10) “Energy Efficiency” or “EE” means activities or programmes that stimulate customers to reduce energy use by making investments in more efficient equipment or control that reduce energy use while maintaining a comparable level of service as perceived by the customer;

(11) “Energy Services Company” means a company which is in the business of providing energy efficient and load management equipment and/or services to end-use customers and is approved by the Bureau;

(12) “Evaluation, Measurement and Verification or “(EM&V)” means activities which evaluate, monitor, measure and verify performance or other aspects of DSM and / or energy efficiency programmes or their market environment;

(13) “Licensee” means the distribution licensee in the State of Himachal Pradesh;

(14) “Load Research” means an activity embracing the measurement and study of the characteristics of electric loads to provide a thorough and reliable knowledge of trends, and general behaviour of the load characteristics of the customers serviced by the electrical industry;

(15) “Monitoring and Reporting” means activities which monitor and evaluate the progress of DSM and / or energy efficiency programme of the Distribution Licensee.

(16) “State Designated Agency” or “SDA” means the agency designated by the State Government under clause (d) of section 15 of the Energy Conservation Act, 2001 (Act No. 52 of 2001).

(17) the words and expressions used in these regulations and not defined herein but defined in the Act or the regulations issued by the Central Commission or any other regulations issued by the Commission, shall have the same meaning assigned to them respectively in the Act or such regulations issued by the Central Commission or such other regulations issued by the Commission.

3. Objectives.

The objectives of these regulations are.-

(a) to make DSM an integral part of the day-to-day operation of the licensee and undertake planning, designing and implementation of appropriate DSM programmes on a sustainable manner:

(b) to make strategic energy conservation, load shifting and pricing initiatives including power factor correction, time of use tariff as the main objective of the licensee.

- (c) to ensure implementation of DSM measures formulated by the Government of Himachal Pradesh from time to time.
- (d) to make DSM measures in the State of Himachal Pradesh consistent with the National DSM Objectives /Plans formulated by the Bureau.

4. Target/ Goal setting.

- (1) The Commission shall set up annual DSM targets in mutual consultation with the licensee taking relevant factors into consideration..
- (2) While setting up the annual DSM targets under sub-regulation (1) the Commission shall consider the technical potential in the State of Himachal Pradesh as assessed by the DSM Master Plan.

5. DSM Master Plan.

- (1) The licensee shall, within 6 months from the commencement of these regulations, prepare a comprehensive draft of DSM Master Plan and submit the same for the approval of the Commission.
- (2) The distribution licensee shall prepare DSM Master Plan initially for a period of 5 years and subsequently for the periods as may be directed by the Commission from time to time.
- (3) The draft of DSM Master Plan shall act as a reference document for the licensee while preparing the annual DSM programme for the State of Himachal Pradesh.
- (4) The draft of the DSM Master Plan shall include the following, namely :-
 - (a) Demand forecasting study,
 - (b) Load research, establishment of baseline data,
 - (c) Walk through Energy audit,
 - (d) Identification of DSM options,
 - (e) Cost benefit analysis of each of the DSM options,
 - (f) Pricing options for DSM,
 - (g) Financing DSM options,
 - (h) Prioritization and implementation schedule for each of the measures proposed in the DSM Plan,
 - (i) DSM targets to be achieved for each of the measures proposed in the DSM Plan,
 - (j) Institutional arrangement, implementation planning, barriers and mitigation measures, and

- (k) any other aspects covered in these regulations or as the Commission may direct.

6. Institutional framework for DSM.

(1) In order to discharge the DSM related functions in a smooth manner, the licensee may within three months from the date of commencement of these regulations constitute DSM Cell and the DSM Cell so constituted shall be provided with necessary resources to execute the DSM related functions.

(2) The DSM related functions of the licensee shall be as under, namely:-

- (a) Load research, consumer survey, development of baseline data and forecasting at aggregate system level, segment level and end use level,
- (b) Formulation of DSM Plan,
- (c) Design and development of DSM programmes including cost benefit analysis, plans for implementation, monitoring and reporting and for measurement and verification for each measure,
- (d) Seeking necessary approvals of the Commission to the Draft DSM Plan and DSM programmes,
- (e) Implementation of DSM programmes,
- (f) Liaison with the State Designated Agency at planning and implementation stage to avoid duplication of DSM and/or Energy Efficiency activity in the State of Himachal Pradesh,
- (g) Validation and Updation of master plan and submission of the same for approval of the Commission, alongwith the DSM programmes on annual basis,
- (h) Evaluation, Measurement and Verification of DSM programme, and
- (i) any other additional DSM related function that may be assigned by the Commission from time to time.

7. DSM programme document.

(1) The distribution licensee shall design and develop the DSM Plan by taking reference from the DSM Master Plan and validating or reprioritising the same based on the feedback from the programme already implemented or being implemented including evaluation of benefits achieved.

(2) The DSM programme shall be prepared by the licensee on annual basis and the first annual DSM programme shall be prepared, within six months from the date of approval of the DSM master plan by the Commission.

(3) The licensee shall submit the annual DSM programme formulated under sub-regulation (1) to the Commission for its approval alongwith the Yearly Aggregate Revenue Requirement (ARR).

(4) The annual DSM programme shall be implemented only after its approval by the Commission.

(5) The DSM Programme Document shall include the following elements, namely:-

(a) Programme description:

- (i) Description of DSM measures and technologies, that are intended to be implemented through the proposed DSM programme including eligibility criteria listing of brands and manufacturers/vendors that will be eligible for participation in the DSM programme, relevant pricing, quality assurance and replacement/guarantee policy;
- (ii) Whether any measures similar to those proposed in the DSM and/or EE programme are underway or planned by the State Designated Agency. If yes, then the description of the same shall be provided alongwith necessity and detailed justification, if any, for including the same in the proposed DSM programme;
- (iii) the consumer segments and the end users which are targeted including eligibility criteria to be used for identification of potential consumers within the identified target segment;
- (iv) Other stakeholders (financiers, energy services companies, equipment vendors, consultants, energy auditors, trade associations, groups of persons, NGOs, academic institutions, Government organizations) involved in the implementation process, description of their roles and responsibilities and manner of participation;
- (v) Identification of barriers of DSM programme including institutional and implementation barrier etc. and the measures proposed for overcoming the same;
- (vi) Strategy the programme proposes to use, including proposed incentives, if any, strategies to motivate consumers and other stakeholders to participate in the programme, description of payment and collection mechanism and equipment/appliance/service delivery mechanism

- (vii) Description of programme management and implementation arrangements, including description of institutional relationships and internal programme tracking systems to be followed by the licensees.

(b) Evaluation Monitoring & Verification:

This part will describe EM&V and monitoring and reporting plans such as-

- (i) description of base line calculation and description of monitoring and verification methodology;
- (ii) description of DSM programme monitoring, review and impact (in terms of programme participation, in terms of increases in penetration level of efficient devices and technologies, and in terms of load reduction/energy savings) analysis system/mechanism – who will monitor, what will be monitored, how will be monitored, who will verify, how frequently will be monitored, who will prepare monitoring/progress reports, etc.

(c) Detailed Implementation Plan:

- (i) This part will describe if the programme will have any phases (e.g. demonstration/pilot etc.).
- (ii) This part will also have description of main activities, and indication about their sequencing and interdependence. For each main activity, this part will also provide description of who will be responsible for the activity and when will the activity be performed.
- (iii) Implementation mechanism i.e. Energy Service Company, DSM bidding, DSM resource acquisition etc.

(d) Estimate of annual and cumulative savings:

This part will describe the estimate of annual and cumulative savings to the licensees and other beneficiaries due to the programme with all the assumptions used in savings estimation process, including base line considered;

(e) Annual programme funding requirements:

This part will have description of financing arrangement, including share of distribution licensee, vendors, consumers, retailers, State Government, Central Government, etc

(f) Cost effectiveness calculation details:

This part will describe the cost effectiveness aspects of each of the measures proposed in the DSM programme including the calculation details of the programme costs and benefits, impact on consumer tariffs, with explicit description of all the input values considered and all the assumptions used in cost effectiveness calculations and for input values;

(g) Mechanism of cost recovery.

This part will describe the detailed mechanism to recovery of the expenditure to be incurred by the distribution licensees for each of the measures under the DSM programme;

(h) Dispute Resolution Mechanism:

This part will describe an appropriate mechanism to be followed for resolution of disputes arising during programme implementations stage.

(i) Monitoring and Reporting:

This part will describe the manner of submission of the monthly and quarterly monitoring reports to the Commission for DSM programme based on the proposed monitoring plans embedded in the programme designs. Also describe the proposed “programme completion reporting mechanism” at the end of the year and also at the end of the DSM plan.

(j) Plan for Training /Seminars/Workshops: to create consumer awareness; and

(k) any other aspects as may be required by the Commission from time to time.

8. Commission review and approval of DSM programme.

- (1) The Commission shall approve the annual DSM programme alongwith ARR every year.
- (2) With a view to ensure consistency with the DSM Objectives set out under regulation 3 the Commission may direct modifications to the proposed or on-going programmes:

Provided that the Commission shall allow reasonable time to the licensee to enable it to notify consumers and others of the programme modification.

9. Mechanism for Cost Recovery.

(1) The licensee shall identify the net incremental costs, if any, associated with the planning, design and implementation of each of the measures included in the DSM programme

(2) The licensee shall propose to the Commission, the methodology for recovery of net incremental costs through tariff or any other mechanism, while preparing the DSM programme document.

10. Implementation of DSM programme.

(1) The licensee shall prepare, plan and undertake implementation of annual DSM programme in line with the implementation guidelines as may be issued by the Commission from time to time

(2) The licensee shall carry out implementation of activities assigned to it either by itself or through engagement of appropriate independent entity. While doing so, the licensee shall ensure that continuity and consistency is maintained and interest of the licensee or that of the consumers is not compromised.

11. Monitoring and Reporting of DSM programme.

(1) The licensee shall prepare, plan and undertake monitoring and reporting of annual DSM programmes as per guidelines on Monitoring and Reporting issued by the Commission from time to time.

(2) Notwithstanding anything in sub-regulation (1), the licensee shall be guided by the approved monitoring and reporting by the Commission while approving the annual DSM programme.

12. Evaluation, Measurement & Verification (EM&V) of DSM programme.

(1) The licensee shall prepare, plan and undertake evaluation, measurement and verification of savings from DSM programmes as per guidelines on Evaluation, Measurement and Verification as may be issued by the Commission from time to time.

(2) Notwithstanding anything in sub-regulation (1) till such time that the Evaluation, Measurement and Verification guidelines come into force, the licensee shall evaluate the benefits of DSM programmes implemented by it based on measurement and verification protocols contained in the DSM Plan and/or DSM programmes approved by the Commission pursuant to these regulations.

13. DSM programme completion report.

(1) The licensee shall prepare and submit phase-wise Programme Completion Reports and submit the same to the Commission as per the schedule approved by the Commission.

(2) The report under sub-regulation (1) shall cover the programme expenses, achievements, outcome, outputs, experienced constraints and difficulties, conclusions, recommendations, lessons learned and way forward.

14. Issue of Orders and Practice Directions.

Subject to the provisions of the Act, the Commission may, from time to time, issue orders, circulars and practice directions in regard to the implementation of these regulations.

15. Power to Remove Difficulties.

If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, by general or special order, take suitable action, not being inconsistent with the Act, which appears to the Commission to be necessary or expedient for the purpose of removing difficulties.

By order of the Commission

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Secretary