Proceedings of the 'Launch of Utility CEO Forum on Demand Side Management'

March 2013

pwc

Utility DSM Forum India

SHAKTI
SUSTAINABLE ENERGY FOUNDATION

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Introduction

The 'Utility CEO Forum on Demand Side Management' was launched on 27 February, 2013, with an objective to provide a platform, for the Indian Electric Utilities to facilitate design, development and delivery of large (Megawatt) scale DSM programs in the country. The launch event was held in 'Vivanta by Taj' (The Ambassador Hotel) in New Delhi, with *Shri Gireesh B Pradhan (retired IAS)* as the Honorary Chairperson, and was attended by 12 other participants representing various Electric Utilities, Central Electricity Regulatory Commission, and the Forum Secretariat. The list of participants is mentioned below.

Participant Profile

i. Mr. Gireesh B Pradhan (IAS retired), Former Secretary, MNRE

ii. Mr. Rajiv Bansal, Secretary, CERC

iii. Mr. Ajai Nirula, Chief Operating Officer, Tata Power Delhi Distribution Limited

iv. Mr. V.K. Chaudhary, Director (Distribution), Dakshin Haryana Bijli Vitran Nigam Limited

v. Mr. Anup Mondal, Sr. Executive V.P - Operations, Reliance Infra (Mumbai Distribution)

vi. Mr. Pramod Deo, Additional V.P - DSM, Reliance Infra (Mumbai Distribution)

vii. Mr. Shekhar D Khadilkar, DSM Cell, Tata Power (Mumbai Distribution)

viii. Er. P. Sachithanantham (B.E.), Chief Engineer / IC, R&D, TANGEDCO

ix. Mr. L. Lakshmipathy, DGM - DSM, BESCOM

x. Mr. Chinmaya Acharya, Chief of Programs, Shakti Sustainable Energy Foundation

xi. Ms. Natasha Bhan, Sr. Programme Associate, Shakti Sustainable Energy Foundation

xii. Mr. Amit Kumar, Associate Director, PwC

xiii. Mr. Kulbhushan Kumar, Senior Manager, PwC

The Launch event continued for about 3-4 hours and included five major sessions. The event was kick started by the Honorary Chairperson, who formally announced the establishment of this Forum, explained the key objectives and rationale for having one. This was followed by four presentations, made by the participants. The first presentation laid down the Vision, Mission and Functions envisaged for the Forum. The second presentation focused on highlighting the findings of the Theme Paper, which was circulated to the participants prior to the meeting. The third and fourth presentations were aimed at knowledge sharing - they highlighted innovative Demand Side Management (DSM) practices that have been rolled out by two Discoms, which are now Forum members. Details of the agenda of the launch and the sessions held are mentioned in the following sections. The key points of discussion amongst the Forum members as well as the opinions/ perceptions/ decisions that emerged from these sessions have been highlighted.

Welcome Address by the Honorary Chairperson

Shri Gireesh B Pradhan, IAS (Retd.)

The Honorary Chairperson kick started the launch event by formally announcing the establishment of 'Utility CEO Forum on DSM. He started off by introducing Shakti Sustainable Energy Foundation (Shakti) as the organization behind the conception of this Forum followed by an introduction of PwC as the knowledge and logistic partner for the Forum's activities. He mentioned that the Forum will act as a facilitation platform to encourage deliberations that can translate knowledge into actions for accelerating deployment of megawatt scale DSM programs in the country. He highlighted that energy shortage in the country is one of the key drivers for DSM. He commented that the DSM initiatives undertaken in other parts of the world have witnessed tremendous success in meeting energy shortages, and therefore the megawatt scale DSM investments by Utilities can substantially ease the supply side pressures faced by the Indian Government while attempting to meet the rising demand. He envisioned that this Forum should be able to advocate a policy instrument towards enabling Utilities across the country to undertake megawatt scale investments in DSM. He mentioned that the Forum should meet at least once in each quarter to meet the desired objectives. He clarified that the Forum is not pushing any specific agenda in these meetings, except the overall objective, and the Forum should discuss and decide the future agenda in order to take up ideas that emerge as critical and appropriate in keeping with the overall objectives. He also mentioned that this Forum would invite regulatory commissions and other special invitees as and when appropriate to hear their views and opinions. He also mentioned that all the discussions among the Forum members and proceedings of the meetings would be documented and shared with the Forum participants.

He concluded his welcome address by thanking the efforts of Shakti Foundation and PwC for bringing many Utilities together to become part of this Forum.

Presentation by Shakti Sustainable Energy Foundation

Vision, Mission and Functions of the Forum

This presentation was delivered by Mr. Chinmaya Acharya, Chief of Programs, Shakti Sustainable Energy Foundation. In his presentation, he presented the vision, mission and key functions envisaged for the Forum. He reiterated that the Forum will operate by deciding its own agenda to identify focus areas. He mentioned that the Forum's activities will be guided by the Honorary Chairperson and the Forum's participants. He also mentioned that PwC would play the role of Knowledge partner for undertaking any research on identified issues and supporting the Forum's thought process in the discussions. He also mentioned that at the end of one year of Forum operations, a comprehensive annual report would be documented that captures all activities and their impact. He cited that another critical objective of the forum is to disseminate the ideas and activities of the Forum to a larger audience outside the Forum. He stated that Shakti Foundation has committed to provide resource support for the Forum's activities for the first year of its operations.

Mr. Chinmaya Acharya, Shakti Foundation

Presentation by PwC

Barriers and Enabling Mechanisms for advancing megawatt scale DSM programs

From (L - R) Kulbhushan Kumar and Amit Kumar

This Presentation was delivered by Mr. Amit Kumar of PwC. The Presentation focused on the critical barriers for advancing megawatt scale DSM programs in the country. The presentation covered certain enabling mechanisms and case studies demonstrating the impact and suitability of these mechanisms to overcome the identified challenges. All the findings in this presentation were derived from a Theme Paper circulated to the Forum participants in advance.

The presentation catalyzed further discussions amongst the participants. The participants unanimously agreed that TOD Tariff in residential sector would substantially mitigate peak load shortages for many Utilities in the Country. There was discussion about disadvantages of Compact Fluorescent Lamp (CFL) lighting and the potential of Light Emitting Diode (LED) based lighting systems in the residential sector.

The chairperson stressed the need for DSM policy, and it was very well received by the participants.

The presentation concluded with the participants endorsing the relevance of the barriers identified in the theme paper.

Annexure-1 provides a complete copy of the presentation on 'Barriers and Enabling mechanisms for advancing megawatt scale DSM programs'.

Remarks and observations by CERC

Shri Rajiv Bansal, CERC

Mr. Rajiv Bansal, Secretary, Central Electricity Regulatory Commission (CERC) indicated that this Forum allows a collective platform for the utilities to raise specific issues and opportunities for effective implementation of DSM initiatives. He mentioned that the Forum of Regulators has prepared DSM regulations to guide State Electricity Regulatory Commissions (SERCs) adopt their own state specific DSM regulations. He stressed that the state Governments and Utilities are the principal actors for advancing DSM. As most of the 75 odd Utilities in the country are state owned, the support of the State Governments would significantly advance DSM measures in the country. In this regard, a DSM policy would enable the State Governments to set targets and guide the state owned utilities to identify potential opportunities for DSM. The policy would also set the stage for kick starting the process for megawatt scale DSM investments in the states. Mr. Bansal stressed that the financial situation of many Utilities across various states is poor whereas the potential for DSM is very high. Therefore, there is a need to expand the pool of participating states in the Forum. He indicated that the success stories of DSM are primarily confined to private sector distribution companies and to urban areas, HT consumers, and sectors other than agriculture. Therefore success stories in state owned Utilities with a majority of rural and agriculture consumers would have higher replication potential and thus maximize the impact at the national level. The Honorary Chairperson acknowledged the need to sensitize public sector Utilities about the advantages of DSM, and conveyed that the Forum would do its best to invite new states in the upcoming meetings.

Presentations by Tata Power (Mumbai Distribution) and BESCOM

These presentations were delivered by Mr. S Khadilkar of Tata Power and Mr. Lakshmipathy of BESCOM. The Tata Power's presentation focused on the 'Demand Response' initiative rolled out in Mumbai distribution circle. The BESCOM's presentation highlighted some of the DSM measures undertaken by BESCOM.

Proceedings of the Round Table Discussion

The Round Table discussion was kicked off by the Honorary Chairperson with the objective of identifying critical barriers, which are impeding the megawatt scale DSM investments by Indian Utilities, and chalking out a clear agenda for the next Forum meeting.

The Honorary Chairperson spearheaded the discussion starting with the list of pre-identified barriers. The discussion proceeded as follows:

1. The current practice of load shedding creates disincentives for DSM action. How could this situation be handled effectively?

    - The participants indicated that Load Shedding should be undertaken at feeders with the highest losses. This is a more practical method, which is usually followed during peak load times. It was pointed that there is a rotation system in case the load shedding is for longer periods and the shedding of load is made cyclic in nature for the Industrial & Commercial consumers.

    - The participants also brought in a few other examples. One utility had adopted a system where in they maintained supply to Industrial consumers and shedding was done on non-essential loads or on loads that do not produce adequate returns. But this led to public hue & cry and the Utility was perceived to be aligned with the interests of the Industrial consumers! Furthermore, the Utility was questioned on their act of “penalizing the honest consumers” instead of working towards reducing line losses. Drawing from this experience, it was suggested that a policy in the direction of load shedding on high loss consumers may not be a feasible option.

    - Mr. G.B. Pradhan also cited a practice in Bangkok, Thailand, where Load Dispatchers had a tie-up with Television Networks / Channels. During the evening peak load times, the channels flashed an alert on the peak load situation and requested the consumers to switch off at least one use point. This initiative saw an immediate reduction 40-50 MW during the evening peak times. He also expressed his concern on the sustainability of this measure as after a point, the message of “load reached” may get repetitive and in effect, consumers may not respond to the request at all.

There was a general consensus amongst the participants that Load Shedding should be undertaken in extreme situations and should no way be seen as a DSM measure.

2. What should be the scope of load research studies in identifying and evaluating DSM interventions?

    - Mr Amit Kumar highlighted the importance of load research studies & sought views on mandating Utilities to carry out such studies.

    - Mr. Kulbhushan Kumar highlighted the importance of primary surveys and walk through audits during load research studies to capture the contribution of equipment/appliance to the overall load profile.

There was a general consensus amongst the participants that Load research studies are an important prerequisite for DSM process.

3. What are the DSM options available to Utilities to tackle peak load, other than Demand Response?

    - The participants stressed that there is a need for shift from load management measures to load reduction measures.

There was a general consensus amongst the participants that Load Reduction measures have a higher potential than load management methods.

4. What incentives are necessary for Utilities investing in DSM? Could Capitalisation/shared benefits motivate the utilities further?

    - The participants brought forward the idea of preparing a viable business case with pilot projects. A pilot project would be a conformance of the benefits accrued. Once data is provided on such projects, a viable business can be established.

There was a general consensus amongst the participants that viable business cases with pilot scale projects would eliminate this barrier.

5. What is the current status of policy and regulatory framework for DSM

    - The Chairperson reiterated the need for a DSM policy to guide the state governments to set DSM targets for the Utilities and enable them to make megawatt scale investments towards DSM.

There was a general consensus amongst the participants that a DSM policy would set the stage for kick starting the process for megawatt scale DSM investments within the states.

Annexure 2 shows the list of pre-identified barriers and questions posed to the Forum's participants to initiate the discussions and debate.

Agenda for Next Meeting

DSM policy for Indian States

There was a general consensus amongst the Forum participants that PwC would undertake an international review of DSM policy frameworks and further develop a DSM policy applicable for Indian states. PwC would also compile DSM measures/initiatives across various states in the country to assess the current status of DSM implementation.

Apart from this the Forum participants requested to circulate the list of pre-identified barriers and key questions posed to the participants for further deliberation. (Refer annexure 4). The Chairperson also suggested that interim meetings could be arranged on as needed basis to address any specific matter that requires immediate attention.