Fact Sheet

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Scaling-Up DSM to the National Level

Introduction

In order to address both current and future concerns such as chronic power shortages, environmental degradation from power generation, and energy security, Indian policymakers and regulators have initiated several efforts focused on improving the efficiency of electricity use. Demand side management (DSM) which encompasses energy efficiency improvements, energy conservation and load management is one such method that looks to increase end-use efficiency. Several utilities in India have initiated DSM programs. In addition, the Bureau of Energy Efficiency (BEE) has established a labeling program for major appliances. However progress in end-use efficiency improvement has been limited. Here we look at one way - the use of national programs (NPs) - to make energy efficiency efforts more effective in India.

Experience with Current Energy Efficiency Efforts

Most of the effort on designing and implementing DSM programs for appliances is being carried out at the state-level using consumer funded and utility-administered programs. Progress so far has been limited when compared with the enormous potential that can be tapped. The key reasons for this sluggish development of DSM in the states include:

Different priority: *S*hortages of supply and technical and commercial T&D losses, have a much greater urgency for the utility management than energy efficiency.

Lack of expertise: A lack of understanding and expertise regarding these issues, and a serious lack of high quality manpower in the utilities.

Aversion to risk: Utilities are often reluctant to propose and design programs on their own, but would be willing to implement programs that have already been designed by some other agency and in which they have minimal financial risk.

BEE has already established a labeling program for eleven products and is moving to gradually make them mandatory, which would then become the *de facto* minimum efficiency performance standard (MEPS). BEE is planning to ratchet-up these thresholds thus resulting in a steady improvement in the efficiency level. Energy efficiency will certainly improve in this way but the change needs to be accelerated to avoid build-up of a large stock of inefficient appliances. NPs with carefully targeted incentives can make the shift much faster.

Accelerating the Shift to Higher Efficiency Through National Programs

NPs have two main features: (1) The geographic scope is expanded from the city or state boundaries to cover the entire country; and (2) The focus is on changing manufacturers' behavior through upstream incentives instead of trying to change the behavior of many consumers through downstream intervention. The underlying idea behind the development of NPs is that DSM would be more effective if it were to focus on a shift to higher efficiency on an on-going basis - market transformation (MT) to the use of more efficient products - rather than focusing merely on cutting demand at one point in time. The advantages of such NPs are:

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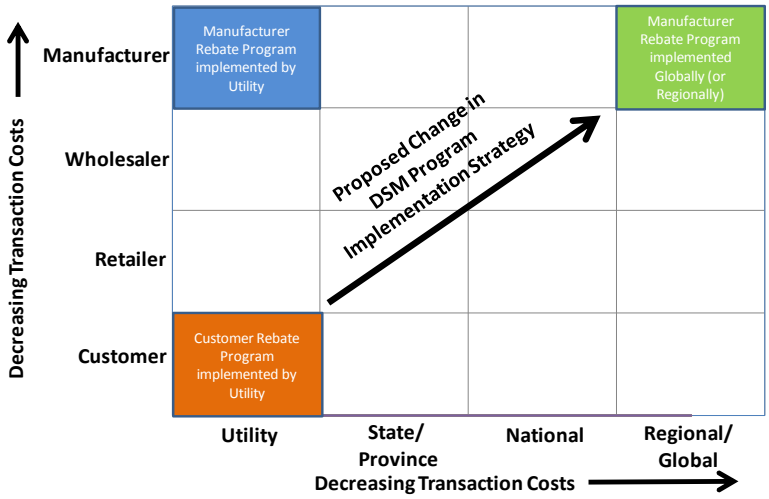
Reduced transaction costs: Reduced number of total transactions as the point of intervention moves from customer to manufacturer and from the utility to the national level. Correspondingly, the transaction costs are lower.

Reduced Program Cost: Intervening upstream (manufacturer) you avoid the markup due to marketing and sales. As an example the manufacturer of an appliance selling for Rs 100 may need only Rs.10 to make it super efficient bringing the total cost to Rs.110. On the other hand, if the incentive is given at the retail end the various mark-ups and taxes may make the price of the super efficient appliance Rs.130, requiring Rs. 30 to be given as rebate to the customer

Increased Bargaining Power: While negotiating with manufacturers, one entity negotiating on behalf of all utilities in India would have much greater bargaining power because of the much larger market size at stake compared with each utility negotiating separately.



Coordination and Effectiveness: In the case of national programs design of processes for appliance procurement and monitoring and evaluation need be done once only and greater attention can be given in their development, resulting in much better processes. In addition, regulators and utilities do not have to worry about measuring difficult aspects such as free-ridership, leakage, and spill-over.

National programs were proposed in India by Prayas Energy Group and developed with the Lawrence Berkeley National Laboratory (LBNL). LBNL, Prayas and the Regulatory Assistance Project have also applied this concept at the global level. Contact info@prayaspune.org for details.

- **NPs help reduce transaction costs, are easier to administer, and are more amenable to simpler and yet more robust evaluation and monitoring, leading to greater transparency and accountability.**
- **NPs can help the design and deployment of appliances that are better suited to Indian conditions.**
- **NPs facilitate better coordination with national standards and labels programs and allow rapid ratcheting-up of standards.**
- **NPs, through the use of model program designs, evaluation and monitoring plans, facilitate better utilization of limited expert resources in developing countries.**
- **NPs can substantially enhance speed of implementation while improving economics and accountability.**