"TRANSITIONING TOWARDS A NEXT GEN UTILITY"

A Two-Webinar Series Co-Hosted by TATA Power Company Limited (TPCL) and The Energy and Resources Institute (TERI)

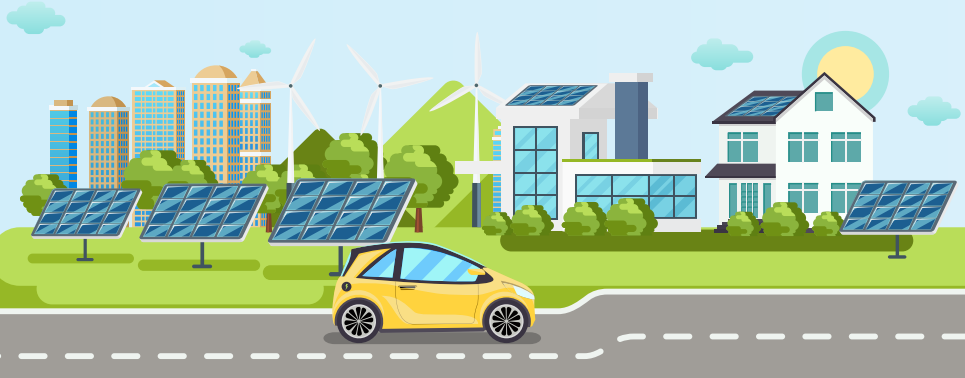
Webinar I: Consumer-utility engagement for demand side management

Consumer engagement – the term isn't necessarily about switching off the bulbs or other electrical equipment's or replacing high consumption equipment's with energy efficient appliances such as a 5 star AC or LEDs. On the contrary, it is mostly about a consumer understanding its own energy use and seeking opportunities to conserve, and contributing to more efficient, reliable energy systems.

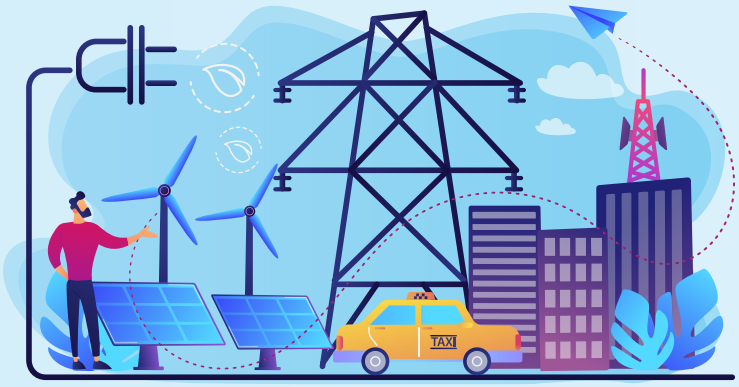
The rapid infrastructure growth in urban cities has outpaced the planning that was conceived by cities and states. Emerging group housing, increased demand from industrial and commercial complex continues to perplex distribution sector and constantly challenge the capacity addition that is made year on year by distribution companies. As a result, India faces an inflection point at its electricity demand and supply scenario. To achieve the objective of meeting the rising demand the power sector has been shifting focus towards Consumer-utility engagement for demand side management to increase reliability, affordability and sustainability of power supply.

Utilities now-a-days are actively engaging with consumers through several platforms and it has increasingly become the new norm for several electrical utilities in recent years. Many utilities have utilized best practices in customer engagement and experience from other industries, heeded to the needs of their customers and developed innovative tools to meet these needs. As a result, consumers today have access to more programs and services to manage their energy usage and more ways to interact with their utilities than ever before. In the process, the Utilities are also incentivized to actively engage with consumers because it adds flexibility to the grid, helps in load management, reduces emissions and increases customer satisfaction.

In recent years there have been plenty of examples of how the utilities are engaging with consumers and managing demand, for instance - the utilities are providing smart meters, energy management systems, home automation, renewable energy based solutions and a newer application for demand-side management that is the energy storage units to store energy during off-peak hours and discharge them during peak hours are gaining popularity and a plethora of other demand side management schemes for their consumers to choose from for an energy efficient household. These latest new technologies are providing a means for both the utilities and the consumers to engage and become smart users and suppliers of electricity.



Government of India has also been actively promoting and framing policies vis-à-vis energy conservation and energy sustainability in the country. With



this focus, Energy Conservation Act was formulated in 2001 and Bureau of Energy Efficiency (BEE) was set up in 2002. Working on the Tata Group ethos and following the government mandate, TATA Power and its subsidiaries have introduced several energy efficiency programs for their consumers over the years. These initiatives include replacement of conventional lighting with efficient lighting (LED-based applications), appliance replacement program for refrigerators & air conditioners etc. Additionally, Tata Power Delhi Distribution Limited (TPDDL), a Tata Power Subsidiary, undertook an Automated Demand Response (DR) program for 162 industrial consumers over a span of 2 years. The objective of the program was to shift the load during peak hours to support grid stability.

Similarly, TERI has a demonstrated a range of practices that have helped small and medium enterprises in India to reduce their carbon footprint and improve their profitability. TERI has been working extensively with various distribution utilities and electricity regulatory commissions in preparing demand side management (DSM) action plans and energy efficiency (EE) roadmaps based on load research methodology developed in-house for Indian conditions; this approach has been accepted by Bureau of Energy Efficiency, Government of India. The work has been carried out for over 20 distribution utilities based on load research across Indian subcontinent with consumer base ranging from 0.2 million to 27 million. Along with this, TERI has also been assisting various state utilities in implementing various DSM & EE interventions. TERI, with the support of World Bank, has led the implementation of India's debut initiative for direct benefit transfer for electricity (DBTE) among agricultural consumers in the state of Punjab.

The first webinar in the series ***"Consumer-utility engagement for demand side management",*** co-hosted jointly by TATA Power and TERI, shall focus on the relationship between utility and its consumers and the importance of it for the utility while Transitioning towards a Next Gen Utility. The webinar shall bring focus on the various demand side management and energy efficiency initiatives that have been undertaken across utilities and shall be undertaken in the future such as deployment of smart meters, home automation, renewable energy systems, EVs and other energy conservation and energy efficiency measures. The webinar will also throw light on the perspective of industrial and residential consumers on utility driven energy efficiency/demand side management programmes along with the benefits and drawbacks offered by such programmes. Benefit to the utility in load management and load curve optimization along with government policies in this sphere will also be deliberated upon.