

"TRANSITIONING TOWARDS A NEXT GEN UTILITY"

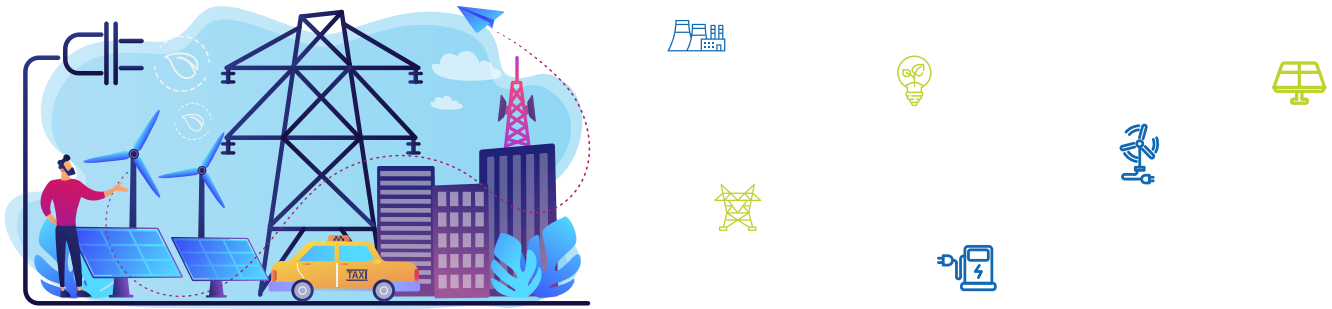
A Two-Webinar Series Co-Hosted by TATA Power Company Limited (TPCL) and The Energy and Resources Institute (TERI)

Background Note

Despite making constant advancements since Independence by making massive addition to generation, transmission and distribution capacity, Indian power sector shows a constant mismatch between demand-supply. Numerous steps are taken by the government and the private sector to bridge this gap and establish a robust, resilient and reliable power supply system equipped with advanced infrastructure helping the utility transition towards a Next-Gen Utility.

While all three segments of the power sector — generation, transmission and distribution — are important, the distribution sector needs to be established as the strongest link in the value chain. Distribution sector is the only interface between utilities and consumers and it is the cash register for the entire sector. Presently, the distribution sector remains the weakest link in power sector business plagued with poor infrastructure and inefficiency. Thus, making it imperative to move towards and adopt advanced energy systems. Further, India's revised ambitious target of achieving 227 GW of renewable energy by 2022 and its subsequent integration to the grid calls for an even greater effort in terms of developing and utilising new age digital technology to bring about an overall efficacy in the process.





Today, the sweeping change across utilities of India is moving from a supply side to demand side energy industry and doing so with improved power reliability, availability and in an environmentally conscience way. The transformation story is being facilitated through technological innovations, the use of information and communication technologies, distributed energy resources and modern digital technologies etc. This transition also paves the way for more consumer participation as well as optimum usage of decentralized resources because of which more human machine collaboration at user end is coming into play and energy conservation is becoming a priority.

In view of the above, TATA Power Company Limited (TPCL) and The Energy and Resources Institute (TERI) are conducting a joint two-webinar series with a focus on – **"Transitioning towards a Next Gen Utility"**. Through the curated webinar sessions, TPCL and TERI are coming together to share and learn from the existing global and local experience with respect to deployment and use of energy conservation & energy efficiency measures, distributed energy resources, smart grid infrastructure, smart meter, digitisation, consumer experiences among others to respond to a shifting global electric utilities landscape. The aim is to create deeper insights for designing effective policies, initiatives and strategies to enable greater utilization of demand-side and supply-side resources in India, enhancing and consolidating financial viability of the DISCOMs and Transitioning towards a Next Gen Utility. The webinar series shall also focus on discussions regarding new & existing business models, and examine value of the new systems to the utility and customer. Further, the perspectives of key sector experts on what is an ideal market structure to best position power utilities to support and transition into the utility of the future shall be captured.

The first part of the webinar series shall be on theme of **"Consumer-utility engagement for demand side management"**, while the second part being on the theme of **"Emerging technologies in distribution system management"**.

Webinar I: Consumer-utility engagement for demand side management

The first webinar in the series "Consumer-utility engagement for demand side management" 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.



Webinar II: Emerging technologies in distribution system management

The second webinar of the webinar series “Emerging technologies in distribution system management” shall focus on the upcoming technologies being explored by the utilities which would help them in efficient system management. The webinar shall focus on the recent emerging technologies which are a point of focus for the distribution utilities presently, such as adoption of technologies related to smart grid, distributed renewable energy integration, planning of new consumer category of electric vehicles with their increasing penetration, energy storage systems among others. The webinar shall capture the perspective of key sector experts in the respective areas who have been able to address some issues while striding against the challenges and, thereby, offer a chance for cross-learning for other participants from these experts. During the deliberations of the webinar, the possible recommendations to address these challenges shall also be explored along with the possibility of any future technology adoption.

About the Organizers

TATA Power Company Limited

Tata Power Company limited is India's largest integrated power company with over 5 million power supply customers. It has a generating capacity of 12,742 MW which comprises of 30% clean energy generation. Tata Power, together with its subsidiaries and joint entities, is present across the entire power sector value chain of conventional & renewable energy and next-generation customer solutions.

The Energy and Resources Institute (TERI)

The Energy and Resources Institute (TERI) is a leading think tank dedicated to conducting research for sustainable development of India and the Global South. TERI was established in 1974 as an information centre on energy issues. Over the following decades, it evolved into a research institute, whose policy and technology solutions transformed people's lives and the environment. TERI's key focus lies in promoting clean energy, environmental management, sustainable agriculture, climate resilience, water management, sustainable habitat, resource efficiency, and outreach and advocacy among others.

