



FROM CRISIS TO CONQUEST IN UTILITIES

AUDIO TRANSCRIPT

SANJEEV ARORA

Managing director and client group lead-
Resources
Accenture In India

SANDEEP DUTTA

Managing director and sales lead
Accenture in India

AMIT KHURMA

Managing director-Utilities
Accenture In India

ANURAG JOHRI

Senior Principal – Resources CG
Accenture In India

Helping the utilities sector in India outmaneuver uncertainty by becoming digital enterprises

The utilities sector has always been at the forefront of preparedness to deal with changing situations, natural disasters and economic impacts. However, like most industries, COVID-19 caught utilities off guard and plunged them into a state of limbo. As the keeper of lifeline services, how can utilities, especially DISCOMS, maintain business continuity and show resiliency during the pandemic and beyond? The answer lies in embracing digital technologies, smart devices and data analytics.

SPARKING A CHANGE

The global energy sector is undergoing a significant transformation—rapidly depleting conventional energy sources are being gradually replaced by renewable, sustainable and clean energy. This transformation has triggered a disruption in the utilities industry. Increasing penetration of renewables, distributed energy generation and energy efficiency evolution have resulted in volatility and price hike, impacting demand and investment. For utilities in India though, these challenges are compounded with existing institutional problems in the power sector. These include:

Number 1: DISCOMS are losing money because of high Aggregate Technical and Commercial (AT&C) losses of approximately 20 percent

Number 2: A supply-demand mismatch and regional imbalances are leading to frequent outages

Number 3: Developers trying to set up solar or wind farms are facing slow pace of greener transmission corridor buildup due to Right of Way issues and financial challenges



The COVID-19 situation also witnessed the white-collar workforce moving from tier-1 cities to either semi-urban or rural areas to work from home. These areas, which were being earlier neglected by the DISCOMS, will now require a more robust and reliable power supply network. As a result, these areas will need more investments to upgrade the transmission and distribution network as well as bring changes to the Power Purchase Agreement (PPA) contracts to ensure uninterrupted power supply, thereby affecting all players in the power value chain.

REKINDLING GROWTH, THE SMART WAY

The situation is grave, no doubt. However, there's a lot utilities can still do to turn around their business, have business continuity and build resiliency for their people, processes and systems. One of them is by becoming digital enterprises—embracing digital technologies to drive high levels of efficiencies into their business operations. Here are four focus areas where utilities can use the power of digital technologies to outpace change and thrive.

FOCUS AREA NUMBER 1: SMART METERING ACCELERATION

Smart meters can prove to be a game-changer for India like they've been for many countries around the world. The lockdown restrictions prevented field officers from visiting houses in person to collect meter readings and so most utilities couldn't get power bills sent to customers. With smart meters, the entire manual process can be fully automated, saving DISCOMS considerable time and effort in collecting meter readings while allowing customers to adopt good energy habits by tracking usage and spend. The planned rollout of 5G communication networks across the country is expected to further enable easy linkage between smart meters and utility back-end systems.

The Ministry of Power is planning a country-wide program to install 250–300 million smart meters in the next few years. Accenture has designed the Information & Communications Technology (ICT) architecture for the smart meter rollout. Through this engagement, we are

CHALLENGE NUMBER 1: THE IMPACT ON POWER GENERATION

With the lockdown confining people to their homes, the demand for power has shifted from industrial and commercial (I&C) customer segments to residential segments, leading to a significant drop in the overall demand. As a result, power generation companies have been forced to either shut down specific units within the power plant or operate at a very low Plant Load Factor (PLF), as low as 50 percent in some cases, making them economically unviable.

CHALLENGE NUMBER 2: THE IMPACT ON TRANSMISSION

It's not been easy for the transmission companies too. The lockdown restrictions have triggered a significant drop in power consumption, making the transmission process financially unviable.

Adding to the woes are severe operational challenges caused by the unavailability of skilled workforce and supply chain interruptions.

CHALLENGE NUMBER 3: THE IMPACT ON DISCOMS

Social distancing and intra-regional travel restrictions meant that the customers preferred digital platforms to make their bill payments. Although some technology-savvy DISCOMS have managed to offer digital touchpoint options for their customers, most of them are still struggling. Another point of concern is the ballooning receivables. Most of the DISCOMS had agreed for deferred bill generation because of the unavailability of the workforce to visit each house and collect meter readings. With the pandemic happening in the summers—a period of high demand for power in India—the receivables increased drastically, straining the bottom line. Besides, the sudden hike in unemployment, leading to payment defaults, has further impacted the DISCOMS' revenue. In addition, electricity consumption shifting from industrial units to residential areas has also affected their earnings considerably—the former pays much higher prices per unit of electricity as compared to domestic consumers.



To ensure enterprise resiliency now and in the long term, utility companies must prioritize the safety of people and go the extra mile to serve customers while anticipating and minimizing the financial impact. The way forward for utilities is:

Point 1: SAFETY—Account for public and employee anxiety around performing essential work, and anticipate major secondary events (e.g., seismic, weather, cyber, etc..)

Point 2: COMMUNICATION—Provide transparent and consistent communication to all internal and external stakeholders

Point 3: SUPPLY CHAIN—engage strategy and risk management to reimagine projects and related implications

Point 4: WORKPLACE ACCESS—Initiate planning for post pandemic return-to-work protocols, and conduct planning for best-likely- and worst-case employee absence scenarios

Point 5: SURGE DEMAND FOR CRITICAL SERVICES—Engage with government partners to support planning for massive surge of new critical care facilities

Point 6: BUSINESS CONTINUITY—challenge if BCPs are sufficient, and continually evaluate work-from-home implications such as productivity and cyber risk simply wasn't possible in the on prem world.

TIME TO SHED THE LOAD

Utilities are struggling to find ways to tide over the current crisis—whether it's the constantly shifting and unpredictable demand for power, stoppages in transmission because of the lack of funds or labor, or lower bill payment collections due to restrictions in fieldwork. Here are three key challenges the utilities industry needs to overcome to drive sustainability and growth in its operations.

ensuring that besides catering to the India-specific use cases, the architecture also meets the critical requirement of enterprise-and grid-level resilience for DISCOMS.

FOCUS AREA NUMBER 2: CONTACTLESS CUSTOMER ENGAGEMENT

The country-wide COVID-19 lockdowns forced people to avoid visiting billing/ customer care centers in person and, instead, embrace online options to make payments. As a result, many DISCOMS saw a significant jump in online bill payments. Quick to realize the changing customer preferences, the companies encouraged customers to go digital by making necessary arrangements to facilitate an unhindered online payment experience. This transition further boosts the government's nation-wide initiatives to promote digital payments. Besides, there is also a thrust to foster seamless customer engagements through interactive voice response (IVRs) mechanisms to address service requests and complaints.

Moreover, many urban consumers have started using voice-controlled devices such as Amazon Alexa, Google Home and more. Utilities in the US and Europe have already begun to use back-end billing and customer care applications such as CRM, IVR and in-home voice-controlled devices to offer seamless and integrated customer experiences. Not just that—soon, we will be seeing utilities leverage advanced technologies such as chatbots and robotic process automation (RPA) to offer hyper-personalized services to customers.

FOCUS AREA NUMBER 3: UNLOCK THE POWER OF ADVANCED ANALYTICS

Utilities are inundated with data coming from various channels – transmission, distribution, consumption, assets, geographical locations and more. The challenge is how to tap useful data and generate actionable insights on consumption, losses, theft, consumer behavior, demand-supply balance and beyond. The answer lies in harnessing data analytics. And by doing so, DISCOMS can derive deeper insights from grids, infrastructure and external sources to improve network functions while reducing cost and inefficiencies and enhancing customer-centricity.



For example, Accenture built a COVID-19 dashboard that gives DISCOMS a 360-degree view into the critical areas of power distribution and consumption, such as consumer trends, outages, supply levels and more, enabling executives to take fast and accurate decisions. The dashboard leverages the power of data to give information about locked down areas and the number of factories or industries that have been shut down there. This information helps DISCOMS predict demand better and take appropriate actions.

Accenture also teamed up with one of the New Delhi-based DISCOMS to understand consumer behavior and consumption trends for plugging revenue leakages. We helped them identify electricity pilferage and each consumer's probability to default by performing advanced analytics on consumer complaints and payment behavior. As a result, the DISCOM is now in a better position to minimize revenue leakage on account of non-payment of dues.

FOCUS AREA NUMBER 4: ENABLE WORKFORCE PRODUCTIVITY

As the economy starts to open up, utilities must put in place strict back-to-work guidelines that include adherence to social distancing, workers' safety, and proactive incident prevention and management. Some of the important things companies must consider are:

POINT 1: Manage work with a limited workforce and monitor health remotely with IoT and mobile field force devices

POINT 2: Enable the remote workforce to monitor, assign and execute customer requests

POINT 3: Equip field workers with GIS-based location tracking system, along with AR/VR devices and remote coaching facilities to avoid people-to-people contact

POINT 4: Make the processes contactless, wherever possible

HIGH-POWERED TRANSFORMATION-STRATEGIC INITIATIVES

While each utility will have different needs and requirements for workplace and people management, customer service and business continuity, Accenture recommends the following approach to address the immediate challenges.

NUMBER 1: ORGANIZE A COORDINATED RESPONSE

A crisis such as this requires a far more harmonized response, where every employee, whether C-suite staff or field crew, know their roles and responsibilities. Utilities/DISCOMS must channel their attention toward strategic guidance, broad priorities and mitigation of legal or policy issues. A single, cross-functional response mechanism will foster better coordination among field crews, call centers and control room operators.

NUMBER 2: CREATE A FUTURE PLANNING TEAM

The impact of the COVID-19 pandemic on the world has been far more complicated than a typical natural disaster. Therefore, utilities must adopt countermeasures that are modeled on different scenarios and their impact on the current and future business landscape, helping them identify critical gaps and thereby enable in developing robust short and long-term strategies. These measures must also leverage tools and methods to simulate and plan impending emergencies such as storms, floods and grid imbalances.

NUMBER 3: PARTNER WITH STAKEHOLDERS

Restrictions on travel and people's movement are going to stay for some time now. Hence, utilities can expect a shift in the demand for services such as electricity and water—from commercial and industrial sectors to residential. This is where state and local legislators will have to champion response priorities in the different communities they serve. Utilities can actively partner with varying stakeholders to understand their needs and deliver services effectively. Digital touchpoints and communication could be great enablers to establish and cement partnerships with multiple stakeholders with minimal effort and resources.



IGNITE THE FUTURE

Utility services are the lifeline of any city, state or country. The pandemic has brought catastrophic disruptions to the conventional means of generation, transmission and distribution

of public utilities. To tide over the crisis, utilities must adopt a digital mindset—an essential attribute of digital enterprises—to transform their conventional ways of working and usher in a digitally-driven work process and culture. And, by unlocking the power of digital technologies, smart devices and data analytics—anchored on a robust digital roadmap—utilities can not only emerge from the crisis but also surge ahead in the future.

This article is written by Sanjeev Arora, managing director and client group lead-Resources, Accenture In India, Sandeep Dutta, managing director and sales lead, Accenture in India and

Amit Khurma, Managing director-Utilities, Accenture In India and Anurag Johri, senior principal – resources CG, Accenture In India.

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