An Analysis of Customer Satisfaction towards services provided by Public Sector Undertakings

(A Case study of Uttarakhand Power Corporation Limited)

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Introduction

India, a country with more than 1.25 billion population[1] needs access to reliable and affordable electricity for basic daily requirements and this demand will keep on increasing with our booming population. To ensure sustainable and equitable socio-economic development, the Government of India has launched the 'Power for All' programme with the objective of ensuring 24x7 electricity supplies. This 'Power for All' programme, India's increasing urbanization and the rapid growth of the manufacturing sector are expected to be the three key factors that will drive electricity demand in the country. By 2021-22, India's electricity demand will be more than double the level in 2011-12[2].

On account of increasing electricity demand compelled by need to increase the supply of reliable and affordable electricity to all, the electricity sector in India is experiencing a tremendous growth. The Electricity generation capacity is growing at a CAGR of around 6% whereas the growth in Transmission and Distribution sector is growing at 5.5% over the past few years. India was being declared as "electricity surplus" two years ago, and a government dashboard said 99.99 per cent of rural homes--which account for nearly 7 in 10 Indian homes--now have grid electricity. By the end of March 2019, India would have a 4.6 per cent electricity surplus and a peak power surplus of 2.5 per cent[3], predicted in July 2018 by India's Central Electricity Authority (CEA).

Despite surpluses in some states India is not electricity -surplus nation officially, although it has hoped to be one for three years since 2016. India's "electricity deficit" implying the difference between the demand and supply of electricity is not zero. Thousands of Indian villages receive 12 hours or less electricity a day. At the root of the contradictions between almost-universal electrification, "surplus" electricity state and the inability to supply electricity around-the-clock to Indian homes is a debt that burdens state-owned Electricity Distribution Companies nationwide, impairing their ability to build and maintain electricity grids and equipment. The challenging task of meeting the ever-growing electricity needs of all in India is struggling due to inefficient transmission and distribution of electricity. It owes to the fact of sustenance of other elements in the sector such

[1] https://www.statista.com/markets/422/topic/551/india/
[2] https://www.saurenergy.com/solar-energy-articles/indian-solar-energy-market-analysis
[3] https://economictimes.indiatimes.com/industry/energy/power/india-still-not-power-surplus-nation-peak-deficit-at-0-8-energy-deficit-at-0-6-in-2018-19/articleshow/68952124.cms

as generation, transmission and distribution; depends particularly on operational performance and commercial viability of electricity distribution sector.

Electricity distribution sector is the most important link in the entire electricity sector value chain. Indian electricity distribution sector caters to nearly 200 million consumers with a connected load of about 400 GW that places the country among the largest electricity consumer bases in the world. The consumers are served by around 73 distribution utilities – 13 electricity departments, 17 private distribution companies, 41 corporatized distribution companies and 2 State Electricity Boards[4]. Despite the progress made there are several key challenges before the India's electricity distribution sector.

As the only interface between electricity sector and consumers, electricity distribution companies are the cash register for the entire electricity sector. Mostly state-owned, electricity distribution companies purchase electricity from Electricity generating companies and sell them to residential, retail, agricultural, commercial and industrial consumers. The inability of electricity distribution companies to collect revenues from their customers due to electricity theft and lack of proper billing and collection process makes it difficult for electricity distribution companies to recover their fixed as well as variable costs. Electricity Distribution Companies are further saddled with unsustainable tariff structures, slabs for different end users, associated cross-subsidies and high Aggregate Technical and Commercial Losses (AT&C losses). Owing to Aggregate Technical and Commercial Losses high (AT&C losses), the Electricity Distribution Companies in India have extremely weak financial position.

Financially-weak Electricity Distribution Companies trigger a domino effect in the entire electricity sector. As Electricity Distribution Companies fail to pay Electricity generating companies on time, Electricity generating companies in turn fail to service their debt. This places a tremendous burden on India's financial system as banks and investors struggle to recuperate costs. This burden further increases the costs of new Electricity Producing projects as the interest rates for loans for new projects is higher than many other markets. Electricity generation cannot be increased unless Electricity Distribution Companies pay their dues. Since high level of losses in the distribution sector has a deep recurring impact on the financial health of Electricity Distribution Companies and in absence of sufficient reforms in the problem will only be compounded in the coming years, hence analysis of financial performance and Aggregate Technical and Commercial Losses (AT&C losses) of Electricity Distribution Companies becomes primarily important. Poor financial health of the Electricity Distribution Companies has been affecting the performance of the entire power sector. One of the critical factors for the present state of Electricity Distribution Companies is the high level of Aggregate Technical and Commercial Losses (AT&C losses).

Conceptual statement of the study

India's "traditional model" of managing the electricity distribution sector, "is on the verge of collapse", which means much of India's electricity gains are threatened[5]. The stalled recovery by Electricity Distribution

[4] Dr. P. Sekhar, Secured Techno- Economic Growth of India: Unleashing Hidden Growth Potential, Micro Media Marketing Pvt. Ltd

[5]Tripathi, Bhasker., How low prices prevent India from supplying power 24x7 to all homes, India Spend, June 2017

Companies will sustain Electricity Distribution Companies as the weakest link in India's electricity supply chain. Many are saddled with large debts from selling electricity below cost or from poor billing and collections. The financial mess impedes their efforts to serve low-paying consumers, such as rural homes and farmers, while also stifling their electricity purchases and ability to make timely payments to electricity generators. "Crucially, it is not just the fate of Electricity Distribution Companies that is at stake—as electrification accelerates and millions of newly electrified households join the grid, also at stake is the fate of all the small, rural, and agricultural consumers,". Electricity Distribution Companies continue to lose money on every unit of electricity sales. On an average, Electricity Distribution Companies continue to lose revenues on about a fifth of the electricity they provide which if continues will bring serious repercussion for electricity distribution sector which will trickle down to other sector in power sector first and later to other sectors as manufacturing, service and agriculture hampering the overall development of India and its people.

While factors such as increasing population, increasing health care spending and pension costs add to budgetary pressures for Indian government, it is being demanded that government should be made more accountable for what they achieve with taxpayers' money. Despite high Aggregate Technical and Commercial Losses (AT&C losses) in electricity distribution companies, the government of India has increased grants and subsidies for these loss making electricity distribution companies to promote its portfolio of politicized programs related to rural electrification, power for all etc.

When the government starts choosing industries and technologies to subsidize, by allocating capital to loss making public electricity distribution companies rather than allocating in more efficient markets it often makes bad decisions at taxpayer expense. Venture capital firms make many mistakes as well, but they bear the consequences of those mistakes. When the government picks losers, the costs are involuntarily borne by taxpayers. In addition to the taxpayer money that's spent when policymakers try to steer the market in certain directions, government intervention can also delay the development of superior alternatives by companies and entrepreneurs who didn't receive government backing. Government subsidies create an unhealthy—and sometimes corrupt—relationship between commercial interests and the government. The more the government has intervened in electricity generation and distribution markets, the more lobbying activity has been generated. As the number of lobbyists grows, more economic decisions are made on the basis of politics, and more resources are misallocated. And the door opens to cronyism and corruption. The problem is compounded by the reality that policymakers usually have political interests in mind when creating and sustaining subsidy programs. Hence, it is important to discuss how many more taxpayer money would be thrown in the electricity distribution companies of India in the hopes that it will finally achieve objectives of reliable, affordable and quality electricity to all. It's time for policymakers to recognize that allowing the marketplace to determine winners and losers is preferable to a politicized, top-down approach that has produced year on year losses for

electricity distribution companies rather than achieving the targets of reliable, affordable and quality electricity to all[6].

while banks and companies that receive the guarantees get the upside of the program, taxpayers bear the risk and shoulder the burden when electricity distribution companies go under severe financial distress and defer or default on their loans. Such plans and policies by government in general create serious and systemic distortions in the market. These distortions have created the conditions for electricity distribution companies to maximize profits by pleasing government officials rather than customers. This is called cronyism, and it entails enormous—and, most often, unseen—opportunity and economic costs. Hence it becomes important, crucial and challengeable to study the financial management in Electricity Distribution Companies which inspite of suffering huge financial losses receive government grants and subsidies provided to them at the cost of taxpayers' money.

Area of Study

Uttarakhand, a state in northern India has been selected purposively for the present study. The state of Uttarakhand has been particularly emphasized here because there is huge untapped potential of hydropower generation in this state and hydro power has a crucial role to play in ever growing electricity demand in India. Further, the case of electricity distribution particularly for the state of Uttarakhand has been emphasized because here electricity distribution plays an important role in development of state of Uttarakhand. Electricity is one of the most widely used forms of energy, affecting the socio-economic development of Uttarakhand. The electricity generation and electricity distribution relationship has numerous social and political implications in Uttarakhand, where about 63.10% of the population lives in rural areas and most of them belong to below the poverty line. Uttarakhand is a unique case of poverty as the state has a very low rate of unemployment and yet the incidence of poverty is very high. This hints towards the low wage and income rate in the state leading to a peculiar problem called 'a problem of the working poor'. The growth process in Uttarakhand has been limited to the plain districts eluding the hilly areas, as most of the manufacturing units are located in the plain districts. 40% of the population of the state still lives below poverty line[7]. Thus there is an urgent requirement for meeting the productive employment demands of the rural population in the state. This can be achieved through an efficient and reliable access to electricity distribution for the rural population of Uttarakhand.

The necessity of various reforms in electricity distribution infrastructure in Uttarakhand has been stressed to cater to the needs of common people judiciously however availability of reliable and good quality electricity supply at viable rates to industries of Uttarakhand is equally important to make them competitive and sustainable which has to be facilitated primary to exploit the incredible potential of employment creation. Services sector has made remarkable contribution in the development of Uttarakhand. Accessibility of quality electricity supply is very vital for continued growth of this sector. Accessibility to electricity gives energy to each and every sector of

[6]Rugy de Veronique, Subsidies Are the Problem, Not the Solution, for Innovation in Energy, Mercatus Center, George Mason University, March 2015

[7]Rajendra P. Mamgain, M.H. Suryanarayana., Estimation Of District Level Poverty In Uttarakhand, Directorate of Economics and Statistics Department of Planning Government of Uttarakhand, Giri Institute Of Development Studies, November 2017

Uttarakhand and consequently the economic growth however a lot of challenges still exist in electricity distribution for Uttarakhand.

The current development approaches in Uttarakhand are heavily dependent on the conventional energy sources that worked for the plains, but might not prove much effective in the hills due to the associated difficult terrain. Geographical conditions of the state differ at a short distance. Most of the area is hilly and forest coverage is about 66%. Villages are in scattered manner and household coverage in a village is short. In this situation, it is not possible to lay grid lines for electricity distribution either due to forest laws or due to high cost of coverage. Operation and maintenance of electricity distribution infrastructure is also an issue in this pattern. Rising population of Uttarakhand and their expectations create significant requirements for an efficient electricity distribution infrastructure in state. Thus Uttarakhand being a special case of poverty, which has immense hydro power potential of which only 20% of is harnessed and where electricity development has deep socio-economic-political and geographical implications becomes an ideal state for studies related to the electricity distribution[8].

To analyze the particularly the electricity distribution scenario in the state of Uttarakhand the present study selects the only electricity distribution company in the state i.e. Uttarakhand Power Corporation Ltd (UPCL). Uttarakhand Power Corporation Ltd (UPCL) at present is serving more than 18 lakh consumers of the state and providing 20-24 hours supply to all the consumers in spite of hilly terrain and difficult areas in the state[9]. Even though the Uttarakhand government provides subsidy, but in reality, losses of UPCL infer high opportunity costs to the people of Uttarakhand.

By aiding UPCL, through grants and subsidies from government of Uttarakhand it puts other businesses and industries in Uttarakhand at a disadvantage. This market distortion generates losses to the economy of Uttarakhand that are not easily seen and thus generally aren't considered by policymakers in Uttarakhand. For example, electricity distribution companies that don't receive a government subsidy are disadvantaged when they compete against UPCL that receives government funding and support as a result UPCL play a monopoly role in Uttarakhand electricity distribution market denying the choice to consumers. A company or entrepreneur with a superior product or technology than UPCL might never reach the markets and consumers of Uttarakhand because they didn't have access to government funding and support. The result is a diversion of resources from businesses preferred by the market to those preferred by policymakers, which leads to losses for the overall economy.

Uttarakhand Government provide grants and subsidies to UPCL for multiple reasons Such as to reduce financial barriers for consumers to purchase necessities (e.g., medicines and heating oil), to promote certain goods and services, to encourage growth in chosen sectors and industries, and to cut the cost of doing business by discounting inputs for producers. However, the high financial losses at UPCL, decreasing shareholders fund imply that the support from Uttarakhand Government to UPCL in the form of grants and subsidies is poorly targeted toward intended beneficiaries, and economically distortive and inefficient. Since grants and subsidies

[8]Pranab Kr. Das, North –East, 'The Power House of India': Prospects and Problems, IOSR Journal Of Humanities And Social Science (IOSR-JHSS), Volume 18, Issue 3 (Nov. - Dec. 2013), ISSN: 2279-0845

[9] 24*7 Power for All Uttarakhand, 2017

in UPCL are relatively large, it is useful to examine the implications of providing these grants and subsidies in particular to UPCL[10].

Hence there is an urgent requirement of analyzing the financial management at UPCL. The analysis of UPCL becomes important from the perspectives of its financial appraisal and Aggregate Technical and Commercial Losses (AT&C losses) and also from the perspectives of its customers because increase in AT&C losses losses of UPCL resulted in inefficient Electricity distribution system, poor quality of reform measures and poor quality of Electricity supply to consumers which resulted in tremendous consumers dissatisfaction as well.

Objectives of the study

The present study is confined to Hilly state of Uttarakhand and UPCL being the only electricity distribution company in the state of Uttarakhand and the study targets to achieve a an analysis of technical & financial performance of UPCL which is carried out on the basis of a parameter as stated by UPCL for analyzing its performance

1. Customer service and satisfaction,

Research Methodology

The analysis of Customer service and satisfaction parameter is based on primary data that will be collected from district Nainital which is geographically an idea representative of State of Uttarakhand. To anlayse the quality of services delivered by UPCL the 3rd basis (Quickness/promptness in attending to consumer grievances /complaints with ultimate aim of zero complaints and grievances) is being selected for the study. Primary Data has been usedin this study to assess the quality of services offered by UPCL. This study undertakes the sample survey in one district of Uttarakhand served by UPCL.Nainital district being considered as an ideal representative of the state of Uttarakhand was selected for the study. The primary data has been based on sample survey of respondent served through ten (10) substation of UPCL Ltd. in district Nainital. To analyze the attitudes of the respondent the researcher has selected 100 consumers (10 from each sub - station) and 50officers/employees (05 from each sub- station) on the basis of random sampling of Nainital district. 50 electricity customers belonging to the domestic customer segment and 50 electricity customers belonging to the commercial segment of UPCL are asked to fill the questionnaire. A total of 61domestic consumers and 73 commercial consumers were visited for this study because various respondents refused to respond to the majority of the questions and absence of the person who could respond to most of the questions when visited. Convenience sampling is followed in this study for selection of sample population. With responses to an in-depth survey of 50 domestic and 50 commercial customers, Related to customer usage and bill payments, records of actual service delivery aggregate assessments quality of the services of UPCL is measured. Primary data have also been collected from officer of UPCL as well by way of designed questionnaire. Before the formal interviews are conducted, the researcher had telephone conversation with the executives about the subject matter in order to improve the response rate. Statistical tests

[10]Order on True up for FY 2015-16, Annual Performance Review for FY 2016-17 & ARR for FY 2017-18 For Uttarakhand Power Corporation Ltd., UERC, March 2017

such as ANOVA, t-test and regression analysis have also been applied to anlayse statistical significant relationships between different variables of study,

Two questionnaires were prepared for collecting primary data. One was planned for UPCL officers and one for the customers of UPCL. Primary data was collected by interview method where 100 UPCL customers and 50 UPCL officials from 10 sub stations of UPCL in district Nainital were interviewed. In the following parts of the chapter the study of UPCL's customers is addressed first and of UPCL's officers later. To analyse the customer satisfaction it was important to understand what the customers of UPCL really expect from UPCL. A pilot study on 50 customers of UPCL was done initially to identify the expectation of customers of UPCL. The study revealed that UPCL's customer's actual expectations are:

- Trouble-free service;
- Regular electricity supply

Further the process through which the customers of UPCL come in contact with UPCL were identified because this was an interface between the customers and UPCL which becomes a major reason of dissatisfaction among the customers of UPCL, if the services to them are not delivered efficiently and effectively. Customers come into contact with UPCL routinely for just four reasons:

- While paying the bills
- When seeking a remedy for a fault
- When looking for a new link
- When seeking redress in case of an accident

Each of these is an unpleasant procedure for the consumer and, when paired with graft / speed money payments, it becomes a disagreeable overall experience. In addition to physical connections, having household connections requires paperwork and permits requiring the UPCL to be in accordance with the actual installation process. Below is the perspective of customers towards UPCL's services and UPCL's expectations based on the primary data collected using questionnaire:

Data Analysis and Interpretation

Demographic characteristics of respondents have very significant role to play in expressing and giving the responses about the problem, hence important demographic variable were studied to determine the perceptions of customers of UPCL towards the quality of services provided by UPCL. On an average domestic consumers respondents are about 18-30 years of age and commercial consumers respondents also are on an average about 18-30 years of age.

Out of the total domestic consumers respondents investigated for this study, majority (60%) of them were males whereas about 40% were found to be females. Similarly, out of the total commercial consumers respondents investigated for this study, majority (70%) of them were males whereas about 30% were found to be females.

60 per cent of domestic consumers respondents belong to General category whereas 80 per cent of commercial consumers belong to General category. 40 percent respondents of domestic consumers and 20 percent respondents of commercial consumers belong to the SC/ST/OBC category. about 40 per cent of the domestic consumers

respondents were educated up to 10+2 level and about 50 per cent of the commercial consumers respondents were educated up to 10+2 level. 30 per cent domestic consumers respondents and 20 per cent commercial consumers respondents were educated up to graduation. 20 percent of the domestic consumers respondents and 10 percent of commercial consumers respondents were educated up to the post graduates level. 20 percent of domestic consumers respondents and 30 per cent of commercial consumers respondents were in the monthly income group of Rs.30000 and above. 50 percent of domestic consumers respondents and 50 per cent of commercial consumers respondents were in the monthly income group of Rs. 20000-30000 whereas 20 per cent of both were in the income group of Rs.10000-20000. 10 per cent of the domestic consumers respondents were in the income group of below Rs.10000 monthly.

40 percent of domestic consumers respondents and 70 per cent of commercial consumers respondents were living in urban locality whereas 60 percent of domestic consumers respondents and 30 per cent of commercial consumers respondents were living in rural locality. 50 percent of domestic consumers respondents and 30 per cent of commercial consumers respondents were paying monthly electricity bill between Rs.500-1000. 30 percent of domestic consumers respondents and 0 per cent of commercial consumers respondents were paying monthly electricity bill between Rs.0-500. 20 percent of domestic consumer's respondents and commercial consumer's respondents were paying monthly electricity bill between Rs.1000-1500. 0 percent of domestic consumers respondents and 40 per cent of commercial consumers respondents were paying monthly electricity bill above Rs.2000.

51% of respondents do not receive electricity bills and other information online, while 49% of respondents received electricity bills and additional information online. 52% of the respondents were paying energy bills using online methods whereas 48% of the respondents were still paying energy bills by cash.

21% where respondents complained about an abnormal power supply, 19% complained about an interruption of the power supply during natural disasters, 2% complained about a short circuit due to high voltage, 14% complained about a grievance resolution system, 16% complained about an irregularity between electricity bills and usage and 28% of respondents complained facing all the above problems.

61% of respondents said that they had insufficient knowledge of electricity rates and determination conditions and 39% reported that they had adequate knowledge of the electricity rates and determination conditions. 57% of respondents were not aware of their power supply section office, while 43% were aware of their power supply section office.

53% of the respondents felt that the electrical meter did not provide them with the correct reading, whereas 47% felt that the meter reading was correct. Of the total respondents who refused that the electrical meter did not provide them with the correct reading, 55% respondents did not apply to change or test the electrical meter, while 45% of respondents applied to change or check the electrical meter.

54% of the respondents replied that they did not receive the subdivision-level telephone number of the competent officer to complain about electricity supplies and duties, while 46% of the respondents replied that they could have the subdivision-level telephone number of the competent officer complaining about electricity supplies and

duties. 52% of the respondents claimed that if there is a problem with the power supply, the lineman or other employee does not receive the services on complaint while 48% reported that if there is a problem with the power supply, the lineman or other employee will receive the services on complaint. Of the 52 percent of the total respondents who claimed that if there is an issue with the power supply, then the lineman or other employee does not provide the services on complaint, 52 percent said that on service on complaint charge instead of service is demanded, while 48 percent said charge instead of service is requested.

3% of the respondents were satisfied with the power rates set by UPCL whereas 47% of the respondents were dissatisfied by the power rates set by UPCL. Of the respondents who were dissatisfied with the power rates set by UPCL 49% stated minimum income as the reason, 17% of dissatisfied respondents stated Uttarakhand to be an energy state, 2% replied as providing free supply to Delhi as the reason and 32% replied as all of the above reason for dissatisfaction.

It has been hypothesized that there are no significant differences in satisfaction with UPCL Ltd between domestic consumers and commercial consumers of UPCL. The satisfaction was calculated on the basis of consumer complaints regarding power supply, knowledge of electricity rates and UPCL Ltd's determination conditions, awareness of the office of your UPCL Ltd's power supply section and Satisfaction towards the power rates set by UPCL Ltd. An analysis of power intensity—the amount of power used to produce a unit of GDP—shows that the state of Uttarakhand is power-intensive by international standards. State of Uttarakhand has seen increasing consumption of electricity. The rise in consumption is partly due to a rise in the number of grid-connected households and also due to the overall increasing number of power grid connections for use by other consumers. The data indicates that the UPCL is successfully delivering electricity to all, but more data is needed to evaluate whether it is meeting its social obligations to provide energy to households across Uttarakhand. To the customer, each of these is an inconvenient process and when combined with graft / speed money payments, it becomes an unpleasant experience overall. Providing household connections entails paperwork and approvals in addition to physical connections requiring the UPCL to be in sync with the physical installation process. Though the cost of hiring workers did not emerge as a big problem, co- managing the labour did present some challenges. Worker attitudes, especially during the festival season, have been a major cause of delays, as they are not willing to continue working through festivals and are even willing to give up their jobs if forced to stay.

Conclusions and Suggestions

Convoluted UPCL processes, built on the assumption that every customer is a cheat, are opaque to the customer. These become fertile ground for the other form of corruption experienced by honest customers – extortion. Customers only want a hassle free service and 24x7 power supply. The 24x7 power supply to all customers is a challenge in the present chronic demand– supply scenario for energy. Clearly UPCL have a major role to play in solving this problem. The customer today however, suffers not just because of the demand – supply gap. Inability to pay, power purchase practices, load forecasting, slow restoration after faults and unannounced scheduled maintenance all contribute to the customers' woes. All these issues can be addressed and the supply

situation improved in spite of the demand – supply gap. More than 90% of customers will happily pay the full & fair price for the energy they use. The UPCL on the basis of rural electrification percentage, sufficient power supply with low number of employees opines that they have been able to fulfill the objectives of establishment of UPCL despite suffering heavy financial losses.

UPCL need to optimize their capital structure, their cost coverage, improve AT&C losses, and improve the collection cycle. UPCL also needs to strengthen the business model and in process reduce the receivable days. UPCL need to revamp their entire business process for improvement. Lean and decentralized organizational model should be adopted under which each division/business unit should be treated as a separate business unit/profit center. It is also recommended to have independent financial reporting for each division/business unit. It would not only make each division accountable for its performance but would also facilitate transparent reporting. Moreover, the management and field staff need to be oriented to adopt a commercial approach to generate adequate revenue for every unit of electricity sold to consumers. Cost coverage has to be strengthened by adopting prudent power purchase mechanism and tariff rationalization. For achieving operational excellence UPCL needs Strengthening metering, billing and collections to improve the commercial efficacy.

There has been a clear lack of credible information. Lack of proper consumer database is the biggest obstacle for the discoms with respect to proper billing and collection of revenues. Instead of focusing on the UPCL and its financial health in terms of revenue and losses, the focus needs to be on the customer. Financial strength cannot be achieved unless good customer service go hand in hand. The former cannot be achieved without the latter SERCs need to do more on customer service quality and must reach a state where poor customer service is penalised.

Most customers are honest and want to pay honestly for their energy use. A shift in focus towards focusing on the customer, in our analysis, will achieve great results. This shift in focus should not be lip service alone. Every decision made by or for a discom must first be assessed for whether it is good for and fair to the customer or not. Simple processes supported by egovernance can be effectively applied, and quickly, to eliminate this unpleasantness and to give customers what they want. It will also improve the discom's finances. The 24x7 power supply to all customers is a challenge in the present chronic demand – supply scenario for energy. Clearly discoms have a major role to play in solving this problem.

All customers, whatever their size or use for electricity, have no source cheaper than grid power supply, usually delivered to them by their discom. If the average farmer paid `6 per kWh for electricity he would spend `210 per day compared to `570 per day for diesel, `380 per day for solar and `400 per day for animal power to irrigate his field. This argument works for industry and domestic customers equally. This alone is a powerful reason for customers to pay for the supply they receive. Applying this test will change discom and government thinking substantially.

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