The power of Public-Private Partnerships to turn around dysfunctional utilities: The case of Tata Power Delhi

SUBMITTED BY PRAVEER SINHA ON TUE, 11/10/2015

Around the world, many state-owned public utilities, regardless of their unique circumstances, face similar challenges – including rampant losses, an inability or unwillingness to collect fees from users, political interference, and lack of managerial skills among senior staff. These problems infect the sector, making healthy investments in power generation impossible, and striking systems with severe power shortages and blackouts. India has been racked by this same sickness, but the case of Tata Power Delhi Distribution Ltd., which inoculated itself against financial ills rampant in other parts of the world, demonstrates how a utility can nurture itself back to fiscal health.

Student benefitting from quality power supply
Credit: TPDDL

As recently as the early 1990s, India's capital city, Delhi, endured frequent power cuts and outages that disrupted civic life. It was only in mid-2002 that Delhi's government began to restructure the power distribution. One of the three entities in the PPP restructuring was Tata Power Delhi Distribution Ltd. (TPDDL), a joint venture between Tata Power Co. Ltd (51%) and the Government of Delhi (49%). The turnaround of the utility was not without challenges -- but today, only 13 years later, the utility is a vibrant and financially viable enterprise.

To get to this point, all of the stakeholders overcame deeply entrenched practices supported by vested interests in a politically charged scenario. The turnaround demanded innovation, persistence, and forward-thinking management skills. The initiatives we adopted and the lessons we learned have been shared widely so that others can benefit from the experience. Here, I'd like to focus specifically on the three-pronged strategy that allowed us to deliver uninterrupted service to low-end customers.

Getting from loss to gain

Investments of about $620 million from 2002 until today have led to a reduction in aggregate technical and commercial (AT&C) losses from 53.1% in 2002 to below 10% today, improving system reliability and availability. The Average System Availability Index (ASAI) increased from 70 to 99.55, providing a world class experience to consumers. Low tariffs were maintained because benefits from the reduction of losses were passed on to customers or used to offset the increase in procurement price of power. In the last 11 years, nearly 50 percent of the average tariff increase has been offset by the reduction in AT&C losses.

Since the start of its operations on July 1, 2002, TPDDL paid about $58 million in dividends to its shareholders, Tata Power and the Delhi Government. These payments add to an initial payment of $29 million for 51% of the shares and to the payment of income and other taxes. This allowed Delhi's government to invest in other much-needed infrastructure, such as metro rails, elevated roads, flyovers (bridges that carry one road over another), education support, and social support. This situation contrasts sharply with earlier years, when the power sector was a strain on the government budget, and would have led to outflows calculated at $2.3 billion up to 2014, exclusively on account of Tata Power Delhi Distribution Ltd. service area if the restructuring had not taken place.

These figures speak for themselves. However, investment alone is not the solution -- nor are pre-paid meters, though they were a key part of the strategy. The overall success of Tata Power Delhi Distribution Ltd. required imagination, skill, and drive. The first step toward this goal was to reduce AT&C losses that went from 53% to 17% in five years. To do this, Tata initially focused on curbing theft among high end industrial and commercial consumers —in other words, businesses that had the capacity to pay but did not. Once these efforts began, AT&C losses were reduced to 15% in FY 2009 in most areas.

However, further research showed that loss levels were as high as 89% in slum areas (also known as JJ clusters) – and over 220 of these exist in Tata's area. We realized that to reduce loss levels further, the company should also focus on the low end consumers. In the JJ clusters, theft was the main contributor toward last mile AT&C losses. In the slums, people were stealing electricity primarily due to inability to pay, and also because legitimate electrical connections were not available due to lack of proof of residential ownership, lack of electrification of the area, and political intervention, among other reasons. It became clear early on that giving these consumers a skill set was key to improving their capacity to pay for our services.

Implementing our ideas

To help potential clients in low income areas pay for services, TPDDL created a separate consumer segment, a Special Consumer Group (SCG), in 2009. The SCG was charged with developing a way to make new connections affordable to low end customers. Our goal was to improve their socioeconomic condition (and by extension, their ability to pay for our services) via this three-pronged strategy:

1. **Enhancing low end consumers' capacity to pay electricity bills through various initiatives.** Tata Power Delhi Distribution Ltd. started activities in JJ clusters to improve residents' socioeconomic conditions. These activities included insurance schemes, medical facilities, drug rehabilitation centers, women's literacy centers, a reverse osmosis water plant, and vocational training. There were also programs to support children's education through scholarships for college and professional institutions, tutors, and similar initiatives.
2. **Making legitimate electricity connections affordable at residents' doorsteps** by reducing new connection charges to one-third of the current connection fee. The new connections were made available on the same day by holding 900+ Instant Camps (whereby a new connection is released to a slum dweller immediately). To do this, we waived outstanding dues, reduced the requirement of proof of identification, and promoted free accident insurance cover of $1500 on metered connections.
3. **Involving the people of JJ clusters in sustaining the electricity connection.** To ensure that low end consumers paid their electricity bill regularly, TPDDL created entrepreneurship, self-help groups, and brand ambassadors within JJ clusters. The residents chosen for these groups took on jobs including metering, meter reading, and bill collection in JJ clusters.

Ultimately, these initiatives allowed TPDDL to achieve its goals while improving the socioeconomic condition of low end customers. Specific achievements included:

- Metered connections in JJ clusters increased from 40,000 in FY 2008-09 to 175,000 in FY 2014-15.
- AT&C loss level was reduced from 68% in FY 2008-09 to
- Billed demand increased from $2 million in FY 2008-09 to $20 million in FY 2014-15.
- This led to improvements in the living conditions of 1 million underprivileged people (0.2 million families) in slums in the capital of India.

TPDDL's three-pronged strategy for affordable connections for low income people is a sustainable approach. Improvements in the living conditions, brought about by a combination of electricity connections and our SCG initiatives, include access to safe drinking water, education for women, and greater opportunities for employment and entrepreneurship. This in turn results in a better quality of life for the entire community.

The author is the CEO & Managing Director of Tata Power Delhi Distribution Limited (TPDDL). TPDDL is a Public Private Partnership (Joint Venture) of Tata Power and the Government of National Capital Territory of Delhi. Publication does not imply endorsement of views by the World Bank Group.

Recent blog posts

- The power of Public-Private Partnerships to turn around dysfunctional utilities: The case of Tata Power Delhi
- Big data to improve transparency and performance of our infrastructure
- Three innovations to drive infrastructure development
- From trash to treasure: Public-Private Partnerships can help with waste management
- How to accelerate the process and reduce costs for public-private partnerships? Recommended PPP contractual provisions
- How can we close the infrastructure gap in Asia? Ideas from the Asia-Singapore Infrastructure Roundtable
- Voice from the field: how can we help the Caribbean fulfill the promise of PPPs?
- Indonesian Public-Private Partnerships now speak with one voice
- Calling all big ideas on addressing infrastructure challenges: PPIAF's new call for proposals
- The sunny side of PPPs: Rooftop solar, public-private partnerships, and the promise of a brighter future

More

Recent comments

- Hi Marcos, 2015/11/08
- Do the affects of rainfall or 2015/11/05
- Why no mention, in detail, 2015/11/04
- Great course concept for an 2015/10/26
- Very interesting blog from 2015/10/23

more

Most Popular

- Obrigado, Brasil!
- Five secrets of success of Sub-Saharan Africa's first road PPP
- Making PPPs work in fragile situations
- Taming the Terra Incognita of PPPs: The case for data as an exploration tool
- Welcome to the PPP Realities Blog