

## AP Needs to Ramp Up Investments Across the Value Chain to Meet Demands Under States Power for All Scheme

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Andhra Pradesh needs to ramp up its transmission and distribution infrastructure if it wants to revitalize its power sector and achieve Power for All for the state, says a World Bank study. **More Power to India: The Challenge of Distribution**, presented in Hyderabad today is a review of the Indian power sector across key areas of access, utility performance, and financial sustainability. The study, conducted at the request of the Government of India, has identified electricity distribution to the end consumer as the weak link in the sector. The study recommends freeing utilities and regulators from political interference, increasing accountability, and enhancing competition in the sector in order to move it to a higher level of service delivery. It calls for a transition from administratively run to commercially run utilities. The power distribution sector in Andhra Pradesh has made losses since 2012-13. This is despite the state being an early reformer (early 2000s), and having initiated several initiatives like improved metering, regular energy audits, dedicated industrial feeders, regular increase in tariffs and despite it being among the states with the lowest technical and commercial losses (AT+C) in the country. The report points to several reasons that have constrained the power sector in the state from growing including the cost of power purchase which rose sharply for distribution companies (discoms) from Rs 2.81 per unit in 2009-2010 to Rs 3.39 per unit in 2011-12 and to Rs 4.25 per unit in 2012-13. The volume of power purchased from short term sources rose from 860 million units (MU) in 2009-10 to 10,094 MU in 2012-13 - a 14 percent rise. Andhra Pradesh is constrained in purchasing cheap power from other regions because of inadequate inter-regional transmission links even though the southern grid is now a part of the national grid. The lack of power is compounded by the inefficiency of existing plants. The Plant Load Factor (PLF) has deteriorated from 87 percent in FY09 to 80 percent in FY14 and delays in commissioning of new plants due to lack of fuel. As the governments 24x7 power initiative builds up momentum, utilities need to make sure they are well prepared to use the funds that will become available - to strengthen their transmission grids and distribution infrastructure, create robust corporate governance mechanisms, enhance billing and collection systems, institutionalize regular tariff reviews, and position themselves for extending reliable electricity service to all," said Sheoli Pargal, Economic Advisor, World Bank and author of the report. While making an urgent call for change, More Power to India recognizes the many impressive strides that the Indian power sector has made over the years. Generation capacity tripled between 1991 and 2012, boosted by the substantial role played by the private sector. A state-of-the-art integrated transmission grid now serves the entire country. Private distribution utilities in Kolkata, Mumbai, Surat and Ahmedabad, which have been owned and operated by the private sector since before Independence, point to potential gains from private participation. Grid-connected renewable capacity has risen from 18MW in 1990 to 25,856 MW in March 2013. And more than 28 million Indians have annually gained access to electricity between 2000 and 2010. However, according to the study, the financial health of the sector is fragile, limiting its ability to invest in delivering better services. Total accumulated losses in the sector stood at Rs 2.88 trillion or 3 percent of GDP in 2013. These losses are overwhelmingly concentrated among distribution companies (discoms) and bundled utilities - State Electricity Boards (SEBs) and the State Power Departments, says the study. Sector losses have led to heavy borrowing - power sector debt reached Rs 5.07 trillion in 2013. More than 40 percent of the loans were made to discoms. Over the last two decades the sector has needed periodic rescues from the central government - a bailout of Rs 350 billion in 2001 and a restructuring package of Rs 1.9 trillion that was announced in 2012. Poor Performance of Distribution  
Several factors have contributed to the losses in the distribution segment, according to More Power to India. The cost to discoms of purchasing power has risen faster than their revenues have, primarily due to fuel shortages and the need for expensive fuel imports by generators and also due to generation inefficiencies and low capacity utilization of power stations that have pushed up the price of power. Also, tariffs have not kept pace with costs over the years. This has in turn led to an increase in borrowings resulting in increases in interest costs. Finally, there are factors that are well within the control of utilities - such as under-collection of bills and delayed collection of payments, along with the fact that more than one-fifth of electricity purchased is collectively lost by the utilities, so does not generate revenues for them. Projections show that even if tariffs rise 6 percent per year to keep up with the cost of supply, annual losses in 2017 will likely amount to Rs 1,253 billion (US\$ 27 billion). The need of the hour is to improve operational and financial efficiency in distribution through a multi-pronged approach. This could include use of IT for transparent energy audits across the value chain; adopting some of the innovations in reducing AT+C loss pioneered by private sector entities; ring fencing supply to the agricultural sector with a transparently determined and administered subsidy so that rural areas receive reliable power, while revenue maximizing models are implemented in urban areas; and improving institutional accountability, following examples like Gujarat and West Bengal," said Mani Khurana, Energy Specialist, World Bank. Other facets of sector performance highlighted by the study include: Around 70 percent of the sectors accumulated losses in 2013 came from the states of Uttar Pradesh, Rajasthan, Tamil Nadu, and Haryana. Uttar Pradesh alone accounted for 27 percent of the sectors accumulated losses. While grid connectivity has increased, over 200 million people without power live in "electrified" villages. Today, it takes seven procedures and 67 days to get a power connection for a commercial establishment in India. In China it takes 28 days, in Thailand 35, and in Singapore 36 days. Mounting Subsidies: High Opportunity Cost, Weak Targeting  
Utilities face pressure to provide below-cost power to agricultural and rural residential consumers for which they are reimbursed through subsidy payments by state governments. Since 2003, in fact, subsidies booked have grown by 17 percent per year, and subsidies received by 12 percent per year; the cumulative gap between them was Rs 450 billion for 2003-13. This has had a crippling effect on the already struggling financials of the utilities, the study says. As noted above, the study recommends that the sector develop a commercial orientation - once there are clear signals of political will to run the sector in a commercial manner, with transparent subsidies going to only those who are eligible for such support, then day-to-day operations should be turned over to professional managers, it says. The utility should be compensated upfront with a transparent subsidy for non-revenue generating customers, and its management required to collect all revenue due to it from customers who are not entitled to a subsidy, the study suggests. In Andhra Pradesh the subsidy received as a share of subsidy booked began to decline from 2008-09 onwards and was only 50 percent in 2011-12, resulting in cash flow problems for the discoms. State financial support, which has become essential to keep many utilities afloat, has a high opportunity cost. The study estimates that 15,000 hospitals and 123,000 schools could have been developed in 2011 if the power sector had not pre-empted these funds. The study also highlights the need for better targeting of domestic subsidies. Lack of effective targeting of such subsidies has led to anomalies such as economically weaker sections of the population ending up paying more for consuming less power. In fact, in 2010 some 87 percent of the domestic electricity supplied India-wide was subsidized. Over half of subsidy payments (52 percent) India-wide went to the richest 40 percent of households in the country in 2010, the study says. Key recommendations: Build in resilience against financial, operational and natural shocks by investing in infrastructure and tightening operational quality. State governments should pay subsidies transparently, fully, and on time, when they mandate free power supply. Ramp up investments to meet the increase in demand that will ensure under the 24x7 scheme. Generation: Augment generation capacity by completing on-going projects on time. Transmission: strengthen the grid and enhance its ability to absorb power flows, especially from renewables. Distribution: strengthen household metering and segregate industrial and agricultural feeders to provide uninterrupted supply. Link to the report: <http://documents.worldbank.org/curated/en/2014/06/19703395/> Media Contacts: World Bank India: Nandita Roy [nroy@worldbank.org](mailto:nroy@worldbank.org) For more information about World Banks work in India, visit: India Website: <http://www.worldbank.org/en/country/india> World Bank India on Facebook: <https://www.facebook.com/WorldBankIndia> Twitter: <https://twitter.com/WorldBankIndia> Funding for the preparation of "More Power to India was provided by the World Banks Energy Sector Management Assistance Program, Asia Sustainable and Alternative Energy Program, Trust Fund for Poverty and Social Impact Analysis and Australian Aid.

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