

Has India's Energy Sector Really Transformed?

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India is now surplus in coal and in electricity. We are even exporting power to Bangladesh and are negotiating to do so to Nepal. This is in sharp contrast to the scenario two years ago when power plants were working

below desired capacity levels because of a shortage of coal. Here's how things were then:

Electricity trading was being held back, mainly due to inter-state transmission constraints, and by states which remained wedded to their inefficient generation capacity. Most distribution companies had accumulated huge losses and many had no funds to keep buying much-needed power, let alone spend on plant maintenance, or capacity expansion.

What Has Changed?

Most importantly, Piyush Goyal, the union minister for power and renewable energy, coal, and mines has cleared the coal sector's Augean Stables, which were riddled with corruption, theft, and inefficiency. Coal is easily available today, imports have fallen, global prices have fallen along with those of oil and gas. Falling domestic demand has sent coal prices lower as well. Power is surplus despite power plants working at a low average plant load factor of 60 percent. But at the same time, around 30 crore people remain without electricity.

Does This Indicate A Transformation?

That is not so. On the positive side is the coal availability and price situation, increasing but still inadequate interstate transmission capacity, some reduction in transmission and collection losses. But state-owned power distribution companies do not generate enough of their own funds to buy power from within the state or from outside. This is because tariffs remain uneconomical for the distribution companies.

States have violated the law that permits open access for distribution companies to purchase cheaper power from other states. Instead, they buy expensive power from within the state.

Ruling parties treat power as a public good which must be available to all irrespective of their ability to pay. This has meant that power is given free

or below cost to many households, for agriculture in many states, and to some other favoured consumers. Agricultural use of free or cheap power has led to a surge in water-intensive crops like rice and sugarcane, often on soil that is unsuitable. Outcomes range from saline soil to depleting ground water and river water levels.

Water flows from a pipe into a concrete basin near a rice field in Karnal, Haryana, India, on May 19, 2016.

(Photographer: Prashanth Vishwanathan/Bloomberg)

The government just ends up accumulating large stockpiles of rice. Compounding that, the Government of India has a minimum support price policy that encourages cereals even when the demand is falling. It has no relation to water availability and use for the crops.

There has been no improvement in gas supplies to operate stranded power generation capacity. Even when gas is available, demand may not be sufficient. Gas generation is flexible and can usefully back-up variable generation from renewables.

Renewable Energy And Efficient Appliances

Wind and solar renewable energy capacities have gone up significantly, as have some small hydro-electric projects. Governments incur subsidy expenditure in promoting renewable energy, but regulators have failed to enforce renewable energy obligations, resulting in a loss of revenue for the generators of clean power. State power distribution companies have not been compelled to meet renewable energy obligations in their total power supply mix.

Jurdar Thingya and his wife Kompla Jurdar stand near a broken solar panel outside their home in the village of Bhamana, Maharashtra, on January 18, 2017. (Photographer: Dhiraj Singh/Bloomberg)

Progress has been made on energy efficiency. The distribution of LED light bulbs has helped conserve a significant amount of power, as have other measures initiated by the Bureau of Energy Efficiency. This may well have resulted in some decline in demand for generated electricity.

UDAY Scheme: A Stop-Gap Fix

The power sector benefited from the Ujwal DISCOM Assurance Yojana (UDAY) scheme, which reduced debt on the books of state distribution companies by getting the corresponding state government to take over the debt. This, however, has not made any of the distribution companies profitable, but the saving in interest costs has freed some cash.

The UDAY scheme is the best that the Centre can do since electricity is a concurrent subject in the Constitution.

The scheme needs to be seen, not as a solution, but as short-term relief. Power distribution is a state subject, and ruling parties are populist about electricity pricing as they are able to woo large electoral voting blocs.

This is made possible via the appointment of state regulators who are mostly compliant, often from the community of retired bureaucrats who have served in the same state. Until regulators are appointed for their independence, courage, and lack of subservience to ruling governments, there can be little change in the dire financial position of power distribution companies.

It is apparent that fundamental change still eludes the power sector.

UDAY is merely transferring some distribution debt to state governments. It does not tackle the problem of below-cost tariffs and significant inefficiency caused by government ownership. The only way state governments can indefinitely continue taking on power distribution debt as it accumulates, is via the annual budgetary exercise. But doing so will divert funds from vital state spending - on human capital, law and order, and the building of infrastructure. There is no option but to charge users a tariff that is remunerative to the company.

Regulate Well, Build Capacity, Store Better

Regulators must have the authority to punish those responsible for below-cost tariffs, and delays in Aggregate Revenue Requirement filings.

Transmission and distribution losses, poor collection, and theft of electricity must be targeted, monitored and failures severely penalised.

Interstate and intrastate transmission capacities are grossly inadequate. Governments are the primary investors in this space, more so because private investors are put off by long and frequent government delays, and the consequent costs. Delays in of government clearances on land, environment, forest and others have held up many a project, keeping out subsequent private investment.

While India is taking rapid strides in renewable energy, and there are heavy government subsidies involved, there is little investment in backup storage capacity to make up for a shortfall, when there is no sun or little wind.

This storage can be of water, batteries or as flexible generation capacities in gas or coal.

In sum, the energy and especially the power sector in India has experienced an uncoordinated set of policies that have left this vital sector largely in government hands and running at a loss. Foreign investment is most unlikely in such a sector. The domestic investment that has taken place is not very profitable. Their supply is either confined to large users or use other means to cover costs.

Huge investment has been made into the power sector, but it needs more. The present surplus is artificial and not due to demand satisfaction, as much as to poor revenues. The energy sector must be approached in its entirety, policies must be integrated for the private as well as public sector to run it in a way that is remunerative.

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