In a state of energy poverty: on the goal of 100% electrification

There is now 100% village electrification in India, an important milestone in the country's development trajectory. At the time of Independence, while the major global economies were completing electrification, India inherited what K. Santhanam, a member of the Constituent Assembly, called a 'virgin field for electrification'. In response to the regional imbalances in electrical development, led largely by the private sector, the Constituent Assembly set the ground for public sector-led electrification in the country. But despite dedicated public agencies, a planned approach, a sustained political mandate and continued public spending by the Centre and States, India has been considerably slow in reaching the milestone.

Another important turnaround came last year when India claimed to be a net surplus and exporter of electricity (a scenario projected to continue for at least a decade). But do these developments mark an end to India's energy poverty?

India continues to harbour energy poverty; 31 million rural households and about five million urban households are still to be connected to the grid — the highest in any single country. At the same time, a significant portion of connected rural households is yet to get adequate quantity and quality of supply. The Central government has set itself an ambitious target of connecting all remaining households by the end of March 2019 and made budgetary allocations to cover the cost of electrification. As part of a Centre-State joint initiative on 24×7 'Power for All', State governments have already committed to ensuring round-the-clock supply to all households from April 2019. The aspiration for access to clean, reliable and affordable power for all is not free from barriers and fallibility.

Subnational endeavours and the Centre's pump priming seem to have addressed the regional imbalances in electrical development which concerned India's early planners. But regional imbalances in electricity access have persisted. Seven States (Uttar Pradesh, Bihar, Odisha, Jharkhand, Assam, Rajasthan and Madhya Pradesh) account for 90% of un-electrified households. Coincidentally, these States are ranked poorly in social development indices and house about two-thirds of the population living below the poverty line. This concurrence between economic poverty and energy poverty will be a barrier to the goal of universal access.

Cost factor

Who pays for the cost of supply will also be a critical driver. Electricity distribution companies (discoms) in these seven States are already highly indebted, accounting for 42% of accumulated debts of all discoms as on March 2016. Their debts account for 17% of accumulated liabilities of the States. Despite continued State subvention (except by Odisha), all these discoms have been consistently running at a loss, accounting for about 47% of the loss in electricity distribution business. State government subventions amounted to 10% of their cumulative gross fiscal deficit in 2015-16 and accounted for 40% of total subvention from all States. The losses of these discoms after subsidy add up to 19% of their gross fiscal deficits in the year. The fiscal space of these States and discoms seems to be constrained to accommodate additional subsidy. On the other hand, existing subsidised lifeline tariffs in these States appear unaffordable to the poor and certainly higher than in States with universal (or high) access. Had it been otherwise, households would have been connected as villages got supply.

Given the context, it is uncertain whether the goal of electrifying all 'willing households' by March 2019 would translate into universal access to electricity. The assumption that a waiver of the connection charge and easing the connection process (but with no further rebate on lifeline tariffs) will make poor households willing to take up electricity connection is questionable.

Challenges in distribution

The other major challenge is from distribution network capacity. Electrification in India has followed an approach of expansion, often driven by political considerations, without much emphasis on capacity augmentation and making the grid future ready. As a result, the distribution infrastructure is overburdened, as the demand has grown, causing a high level of technical losses and frequent breakdowns. The distribution network capacity in several States is inadequate to carry available electricity. Subsequently, discoms have been resorting to load shedding while their contracted generation capacities are underutilised. Adding new load to the existing fragile distribution network will only compromise the quality and reliability of supply. It could result in continued blackouts for the rural poor during peak hours.

State strategy documents on 24×7 ‘Power for All’ highlight the need and quantum of augmentation required in distribution network capacity. While the Central government has come up with multiple schemes with budgetary allocations since 2001, the available funding support has been short of the growing requirement. Moreover, many States have failed to utilise the limited funding. Current allocations under the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS), to augment rural and urban distribution networks, respectively, are only a fraction of the requirement. Moreover, disbursement of these grants has been much slower, 17% under DDUGJY and 31% under IPDS, reflecting sluggish implementation.

Low achievement of earlier electrification schemes has often been blamed on incompatibility and a lack of cooperation between the Centre and States. Given that six of the seven low access States as well as the Centre are run by a single political party (and allies), there seems to be a strong political consensus on the goal of universal access. Will this consensus translate into a sustainable political mandate, lasting beyond the political battle of 2019? Will power flow in villages? Will newly connected households stay plugged into the grid? It will depend on the ability of the Centre and States to generate required capital investments, timely upgradations in transmission and distribution networks and covering the costs of servicing less remunerative loads. Until then, the volume of dark homes (in absolute numbers) in a fully-wired country may remain as big as it was in the virgin field for electrification.

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When a child faces brutality, in or outside the family, society’s contract with its own spirit is violated

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