Not fully ‘empowered’, yet

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(This article was published in The Hindu BusinessLine, on July 31, 2013)

Electricity is reaching almost all villages but by no means all households.

The power sector continues to be in the news, but not much seems new: shortages and rising costs of coal and gas, continuing power cuts, or the mounting losses of distribution companies.

What is passing below the news radar is the gradual rollout of electricity connections to 8 crore rural homes. This unique feat represents progress, but the shape it takes could reduce it to a missed opportunity – of providing a level of reliable and sustainable service that can boost rural development.

Government reports indicate a rapid expansion of what could be called a sub-standard service in the last decade.

As many as 94 per cent of villages had electricity in 2013, up from 74 per cent just eight years ago, with about 100,000 villages getting connected through the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) programme.

Yet, only 55 per cent of rural households have access. Why this discrepancy in coverage between villages covered and households covered?

The RGGVY provides free connections only to BPL households, which has restricted its scope.

With further investments of Rs 60,000 crore planned in the Twelfth Plan, it may be a matter of time before universal access becomes a reality in India. But what if the households coverage remains poor?

The Ministry for New and Renewable Energy reports that the private sector too has brought electricity through decentralised, renewable energy-based systems to around 9,000 villages, thereby providing electricity to about a million people.

This is a modest achievement in comparison with grid expansion, but in the last few years, investments in stand-alone solar home systems and biomass-based microgrids have picked up as entrepreneurs have more aggressively seized on regulatory and financial incentives.

RURAL-URBAN GAP

However, these numbers tell only part of the story. The access gap is still huge and regionally concentrated — over half of households without access live in three States, Bihar, Uttar Pradesh and West Bengal. Further, the potential benefits of these systems may be under-exploited.

According to the Indian Human Development Survey of 2004-05, households in rural India that have electricity on average receive power for three hours less per day (15 versus 18 hours/day) than urban areas.

In poorer States, such as Bihar, supply is worse overall, as is the gap between rural and urban (four hours versus 10 hours/day).

This disparity is also evident from the low per-capita consumption of 8 units/month for rural households compared with 24 for urban.

Stand-alone systems offered by energy entrepreneurs provide supply for limited hours, typically in the late evenings, and offer primarily lighting and phone charging capability. The price of supply varies widely across rural India and is often much higher than grid electricity prices.

Many newly connected households, from private or utility providers, often pay a flat rate of Rs 100 per month, which may work out to over Rs 30 per unit for low service levels, while the grid tariff for minimum consumption can be Rs 3/unit or less.

Why do we care about providing reliable supply? There is a vast literature on the benefits of electrification for economic and social development.

There is an improvement in people’s quality of life (through longer study hours for children, better services in schools and health clinics, drinking water supply, women’s safety, increased awareness due to better media access etc) and economic status (through increase in productivity in small-scale businesses and agriculture).

A recently published study by one of the authors shows that small-scale household enterprises in India

that have electricity access earn 18 per cent or more income than those without, after controlling for a range of other factors that influence income.

Every hour of improved availability is associated with a percentage point increase in income. If the government aims to boost rural economic development, the current state of electricity service in India falls far short of what is required.

IMPLEMENTATION ISSUES

Grid expansion through RGGVY, which commenced in 2005, leaves much room for improvement in the areas of planning, implementation and sustainability, as pointed out by a recent Prayas study.

Planning has been centrally driven, with very low participation by the States and distribution companies, who are expected to operate the rural network.

Institutional capacity was not built up to monitor quality of construction and manage the large number of new rural poor consumers.

In most States, the hours of supply to these consumers is very low not only because of power shortage, but because of the strong financial disincentive to supply power to the rural poor.

A radical re-look at the electrification programme is required so that this massive effort does not go waste.

The grid-based programme must ensure connectivity to all, including Above Poverty Line households through connection drives, and arrangements should be made for reliable power supply.

Stand-alone systems are important in remote areas, and where the grid is weak. Subsidy has to be provided to households so that they can purchase power generated by them.

Since universal grid coverage is a matter of time in most regions of India, it is better that these systems are planned to be grid-interactive.

By focusing only on electricity 'connections', electrification efforts and related policies fail to ensure that electricity service is well monitored, regulated and sustainable.

There is an urgent need to improve the regulatory oversight of rural electrification at State, district and panchayat levels, irrespective of the public or private ownership of the service provider.

This oversight has to be strengthened by using tools like the Right to Information.

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(This article was published on July 31, 2013)

Keywords: power sector, universal grid coverage, Rajiv Gandhi Grameen Vidyutikaran Yojana, Ministry for New and Renewable Energy