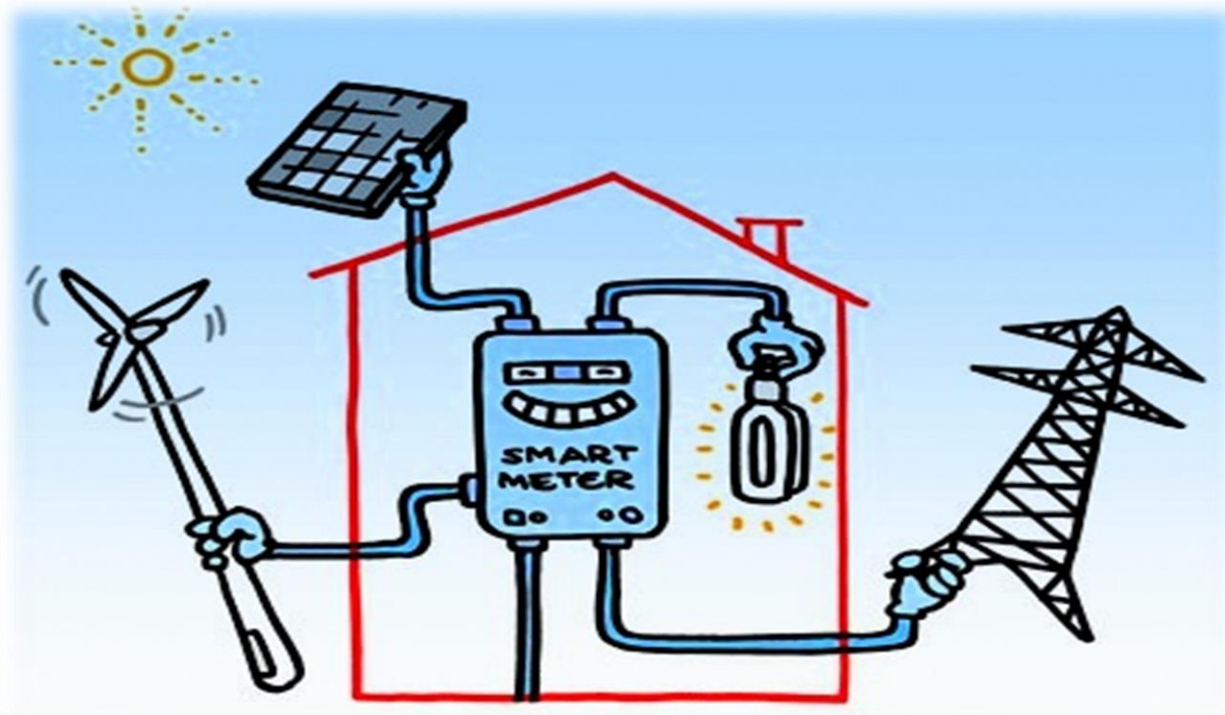


SMART METERS IN INDIA



Picture1: Smart Meters

Smart Meter

Smart Investment

Great Future

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India is all set to experience a big transformation in the power sector. Massive investments are being done in the developing economies like India providing better products and solutions such as smart grids and metering, technologically mapping network and energy efficient equipments like transmitters and switchgears. With the growing population and the increased energy consumption, there is an emerging need to put in place and accurate measurement system for a better future planning.



Picture2: Smart Grid

Classification: Public

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In India, though power theft is one of the strongest incentives to install smart meters, there are other compelling factors such as the need to reduce technical power losses and peak power deficit and bringing in more efficient transmission of electricity to rewarding consumers who help in reducing peak power demand. This investment will be aimed at reducing electricity theft, improving reliability and incorporating renewable energy into electricity grids.



Picture3: Power Theft

Additionally, the smart grid rollout in various states also, is driving the deployment of smart meters. Implementation of the smart grid concept would go a long way in solving many of today's energy issues and problems.

A smart grid delivers electricity from suppliers to consumers using two-way digital technology to control

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appliances at consumer's homes to save energy, reduce costs and increase reliability and transparency. It overlays the electricity distribution grid, with an information and net metering system. Power travels from the power plant to your house through an amazing system called the power grid. Through the use of smart grid technology, energy can be used up to and would not be wasted. This technology also helps to save the earth from global warming

There are various wired and wireless technologies that can support a smart meter such as sub-GHz wireless, ZigBee, Cellular and Power-Line Communications (PLC). While there may be pros and cons for each of these communication technologies, the Smart Meter functionality and the benefits it provides have no disadvantage compared to existing traditional meter deployments. Investing in smart meters is an infrastructure project that will provide attractive benefits to all parties involved including the consumer.

The strategic investment in India towards Smart grid is picking up a pace. India's transmission grid is in urgent need of expansion and improvement. Investing in smart meters is an infrastructure project that will provide attractive benefits to all parties involved including the consumer. According to industry sources, utilities worldwide will spend US\$ 378 Billion in Smart Grid technologies by 2030 and India, the third largest smart grid investment market, is set to install 130 million Smart Meters by 2021.



Picture4: Smart Meters in India

Certainly the investors need to overcome certain challenges such as sectors financial weakness, bureaucratic delays and public ownership of utilities. In spite of these limitations and reservations, India's smart grid system has taken its root.

Smart meters can be very successful in India, and there are many opportunities to improve existing grid systems. Already, several state governments in India have invited proposals from vendors to implement a smart meter system.

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Stakeholders can look at developing business models to encourage private players to invest in the deployment of smart meters. Apart from this, increasing consumer awareness and adoption of standards that leads to interoperability and security will help in scaling up smart meter deployments.



Picture5: Smart Meters, Smart Grid, Smart City

India has already begun making inroads into deploying smart meters in the country. The Government of India, along with power industry bodies, has developed policies and pilot projects to deploy these systems. Furthermore, state utilities providers are already coming out with new tenders for smart meters with increased communication features.