# Energy Access Monitor

July 2017

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- 13,872 villages electrified till June 30, says Union Minister Piyush Goyal

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- Projects Explore Renewable, Alternative Energy Sources

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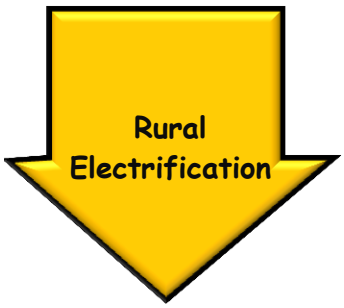
- Pune NGO wins UN prize for sustainable farming model
- Indian village gets electricity for the first time




**Government to form panel to monitor National Energy Policy.** The government will soon constitute a committee, headed by Prime Minister Narendra Modi, to oversee implementation of the proposed National Energy Policy which aims to promote energy independence. The National Energy Policy, was perpared by NITI Aayog will lay the road map for the government push aggressively towards clean energy and reduce fuel import.

- According to the draft NEP, the period 2017-2040 is expected to witness a quantum leap in the uptake of renewable energy, drastic reduction in energy intensity, doubling of per capita energy consumption and tripling of per capita electricity consumption.
- The broad objectives of the NEP are enhanced energy independence, increased access at affordable prices, greater sustainability and higher economic growth.

The policy has proposed interventions across sectors to rapidly reduce the gap on energy consumption parameters between the rural and urban areas, including 100% electrification and clean cooking coverage by 2022. The policy recommends increased commerciality for energy producers, transporters and distributors, and envisages reduction in energy prices through efficient markets.
The policy also lays emphasis on energy efficiency, technology, regulatory oversight, effective overseas engagements, air quality considerations and human resource development in the energy domain.

**13,872 villages electrified till June 30, says Union Minister Piyush Goyal.** 13,872 un-electrified villages have been reported to be electrified up to June 30, 2017, as per the minister of state for power.The total number of un-electrified villages in the country stood at 18,452 as on April 1, 2015 and the government's time-frame to electrify all the villages is May 1, 2018.

He also said that the Decentralized Distributed Generation (DDG) scheme, under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), has been initiated by the government to provide access to electricity to un-electrified villages/habitations where grid connectivity is either not feasible or not cost effective including the villages located in backward, remote, inaccessible and forest areas.
DDG can be from renewable sources such as biomass, biofuels, biogas, Mini hydro, solar etc. Under the scheme, 4,220 projects have been sanctioned with the total project cost of Rs.1354.60 crore, covering 3,285 un-electrified villages in various States across the country, as on 30th June.

The Economic Times, 13 July 2017 | The Times of India, 24 July 2017

RE Technology

**India's Simpa Networks Launches Off-Grid, Pay-Go Home Solar-Satellite TV Service Bundle.** Innovative home solar start-ups continue to crop up and expand in regions of the developing world, making increasingly substantial impacts when it comes to reducing "energy poverty," one of the top-line United Nations' (UN) Sustainable Development Goals (SDGs), as well as helping reach national and international renewable energy and greenhouse gas (GHG) emissions reductions targets, such as those set out in the UN Paris Climate Accord. A signatory to the UN Paris Climate Accord, India is well on its way toward achieving ambitious national solar and renewable energy goals. As of July 2016, India had installed 36.6 gigawatts (GW) of on-grid and 1.17 GW of off-grid renewable power capacity, according to a news report.

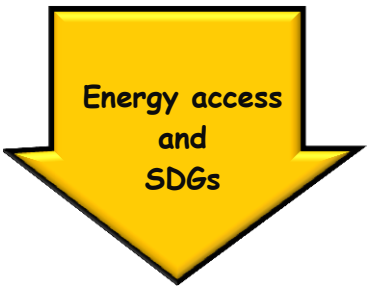

As Microgrid Media has been reporting, innovative, ambitious mobile pay-as-you-go solar (PAYG) systems vendors have been driving historic gains in bringing electricity services across growing swaths of developing economies worldwide, across Sub-Saharan Africa, South and Southeast Asia in particular. Now, they're taking things one step beyond.

- Simpa Networks' Magic TV provides mobile PAYG solar households access to more than 100 free-to-air satellite TV channels, the company highlights. It includes a 20-inch, energy- efficent LED TV set and battery, an advanced solar charge controller and three bright LED lights suitable for lighting multiple rooms.
- Powering the entire system is an 80-Watt solar photovoltaic (PV) panel, which is properly mounted and installed on customers' roofs by a Simpa-trained solar technician.

Simpa's Magic TV off-grid home PAYG solar energy package costs INR25,000 – about US$360. That would make it unaffordable for most of the rural community residents and businesses Simpa serves, management notes. But to overcome this hurdle, Simpa, along with its mobile PAYG peers, surmounts that hurdle by offering customers financing options at the point of sale. Leveraging the widespread availability and popularity of mobile phones and mobile payments services, Simpa offers prospective customers the options of paying to own Magic TV-PAYG off-grid home solar energy systems over the course of 12, 24 or 36 months.

According to one of the employee of Simpa Networks, rooftop solar has a role to play in both off-grid and on-grid areas. In many cases it's the fastest and least expensive way to get power into the homes and businesses in rural areas. Having demonstrated the commercial sustainability of the model, they now plan to take Magic TV and our other offerings to districts across UP, Bihar, Orissa, Jharkhand, West Bengal and Assam.

microgridmedia.com, 9 July 2017

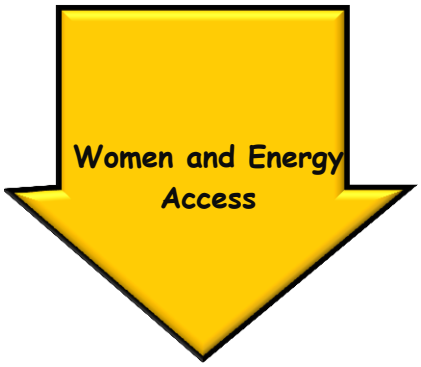



**Projects Explore Renewable, Alternative Energy Sources.** The project news reveals technology and innovation initiatives seeking to use renewable and alternative energy sources. Spanning the gamut of hydroelectric to solar to methane to biomass, the projects contribute to the implementation of countries' energy goals as reflected in their Technology Needs Assessments (TNAs) and Nationally Determined Contributions (NDCs), as well as to the Sustainable Development Goals (SDGs).

Canada and Chile have been collaborating on environmental issues for two decades under the 1997 Canada-Chile Agreement on Environmental Cooperation (CCAEC). The latest project under CCAEC aims to tackle climate action (SDG 13) as well as improved access to clean and affordable energy (SDG 7) by reducing methane emissions from the municipal waste sector. Landfills are an important source of methane emitted from decomposing organic matter in municipal waste streams. The project will explore both approaches to divert organic matter from municipal waste to reduce methane production as well as ways to capture methane generated in landfills and make it available as a source of energy.

India launched its first solar-powered local train, looking to increase the use of renewable and alternative energy in the transport sector. Powered entirely by the solar panels installed on its roof, the train is also equipped with bio-toilets and a water recycling system. The train is expected to be put in commercial service in the Delhi area.

sdg.iisd.org, 20 July 2017




**Pune NGO wins UN prize for sustainable farming model.** Swayam Shikshan Prayog (SSP), a Pune based NGO, has been awarded the United Nations Development Programme's Equator Prize for devising an ecologically sustainable agriculture model to combat the adverse impacts of drought. It is the only Indian organisation to win the award, making the cut from more than 800 nominations across 120 countries. The prize-winning initiative is a women-led 'climate resilient agro-ecological farming model' for restoring land and soil. Prema Gopalan, executive director, SSP, said the project has helped empower more than 20,000 marginal women farmers [landless or those owning less than four acres of land] and their families in Marathwada by helping them make informed decisions about agriculture and the environment.

- The model advocates the use of bio-fertilizers and pesticides, preservation and exchange of local seeds, and a change in farming patterns by diversifying from a single-crop system to growing multiple crops in a bid to reduce the dependency on the caprices of climate.
- This method also emphasises efficient water management through use of hydroponics, drip irrigation, sprinklers, farm ponds, recharging of bore wells and tree plantation leading to improved groundwater levels and soil fertility. So, in times of drought, marginal farmers,

especially women, can make informed decisions about types of crops besides having income security.

The Hindu, 3 July, 2017

**Indian village gets electricity for the first time.** Clementine Chambon, a final-year PhD student in the Department of Chemical Engineering, is celebrating the successful installation of an eight-kilowatt mini solar grid in the village of Sarvantara, which is located in the state of Uttar Pradesh in India.

She helped to set up the mini-solar grid via her social enterprise start-up company called Oorja. The company provides affordable and reliable power to rural communities in India that are currently not connected to the country's national energy grid network. The company also aims to provide a stable source of electricity to villages that currently receive a very poor and erratic supply of electricity.

- The mini solar grid provides around 1,000 people with energy for affordable lighting, phone charging and fans to cool homes.
- The renewable energy generated will also power pumps to provide irrigation services to farmers, providing significant cost savings compared to diesel powered pumps, which is what most rural villages like Sarvantara rely on.
- Forty of the 100 households powered by the system will be fitted with smart meters to enable remote monitoring of energy generation and consumption in real-time. The data will help Oorja to analyse the performance of the system and improve the services they provide.

www3.imperial.ac.uk, 10 July 2017