

## Advancing Energy Access in South Asia

*A Forum Hosted by the United Nations Foundation' Energy Access Practitioner Network*

*Hotel Maurya Patna, Bihar India, September 10-12, 2013*

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### Conference Day One highlights

This forum gathered together more than 150 participants including representatives from a range of new and mature energy companies delivering energy services to off-grid communities and households, social enterprises, and representatives from large corporations, development banks, governments, UN agencies, and individuals to discuss key developments and challenges in the goal to achieve universal energy access by 2030, with a particular focus on practitioners active in expanding energy access in India and across South Asia.

**The plenary session of the conference was opened by Richenda Van Leeuwen**, Executive Director for Energy Access at the UN Foundation, who gave an introduction of the themes and purpose of the



conference, as well as provided reasons for its location in Patna, Bihar, given the challenges faced historically by the State in the provision of energy services. The opening plenary then continued with a distinguished panel including remarks from:

**Onno Ruhl**, India's Country Director from the World Bank, who talked about the global scale of the problem and the need for local, sustainable solutions. He drew the connection between lack of energy access and poverty, citing that in India  $\frac{2}{3}$  of un-electrified households belong to the lowest 40% income bracket.

**Dr. Leena Srivastava**, Executive Director at the Energy and Resources Institute (TERI) talked about the Sustainable Energy for All initiative and some of the challenges in helping to scale up energy access, including lack of access to financing for 40% of the Indian population, the need to educate, train, and

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employ an expanding workforce (63.5 million new entrants over 4 years), and finding successful business models and policies to facilitate energy access. Leena also noted that we have 17 years to find the best solutions, but Onno Ruhl added that this period is only three development cycles for energy projects, saying “we have to hurry up.”

**“We have to hurry up”**

*Onno Ruhl, India Country Director,  
World Bank*

**Srinivasan Iyer**, Assistant Country Director and Head, Energy and Environment from the United Nations Development Programme (UNDP) outlined the scale of the problem in India: 300 million people have no access to electricity, greater than ¾ of the population rely on biomass for cooking, and the average per capita energy use is 10 times lower than in Europe and the Middle East. These problems affect economic productivity, education, the cold chain for vaccines and dairy and personal safety.

### Unlocking the Market: Developing Efficient Supply Chains for Clean Energy Products and Services

In the first session on Developing Efficient Supply Chains, **Praveen Kumar**, Rural Marketing Expert from IFC’s Lighting Asia/India program set the tone by stating that the rural population is looking for solutions to improve their lives. For example, when a large mobile operator launched operations in Bihar, most people expected low revenues, but the business grew to be the third largest revenue center for the company in India. The growth potential for rural India is clear: of the 550 million phone users in India, 300 million are from rural communities.



Further, a growth of 45% per annum is predicted for the next three years in the energy sector. **Anish Thakkar**, CEO of Greenlight Planet, related an inspiring story about Sahoo, a Greenlight Planet entrepreneur. His village of 450 households is only accessible by motorcycle followed by a river boat ride followed by a cycle trek. In three years, he “lit up” [through the sale of solar lights] all but five houses in his remote community. **Vinay Jaju**, the CEO and co-founder of Energy then talked about how his company quickly learned after launching in 2009 that lighting alone was not enough and that a basket of energy services needs to be available to consumers to meet their varied aspirations. **Prema**

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**Gopalan**, the Executive Director of Swayam Shikshan Prayog told the audience about the organization’s successful partnership with USAID to empower a network of 400 women entrepreneurs. **Shailesh Gupta**, the Regional Business Manager of d.light design spoke about the reach of his organization: to date, over 20 million people have been served in 45 countries and d.light plans to reach 100 million people by 2020. Finally, **Ajaita Shah**, the founder of Frontier Markets, spoke about the importance of after-sales service, seeding new markets, and customer driven product innovation. A lively discussion ensued after the audience asked questions about the need to deal with the recent currency fluctuations in India by raising the prices of energy products and about the suitability of conventional distribution channels for new energy products.

### Minigrids - Challenges and Opportunities in Off-Grid Electrification



The second session on Minigrids was moderated by Amit Jain, Energy Access Specialist from the Asian Development Bank. The session started off with remarks by **Hari Natarajan** from GIZ and **Pepukaye Bardouille** from the International Finance Corporation. Hari stressed the importance of proper planning of mini-grid projects to ensure a high quality of service and successful connection of mini-grids to the grid as it extends to remote communities. Also, when asked about subsidies by the audience, he passionately

asserted that mini-grids are infrastructure projects and should enjoy the same types of investments as the traditional grid instead of relying on financing models suited to other types of energy services. Pepukaye focused on the need for mini-grid entrepreneurs to match the type of funding they are seeking to their business mission and motives. She further added that solutions should be compared based on quality of service, for example amount of light produced, rather than on raw energy metrics, such as kW hours of electricity provided. **Ratnesh Yadav**, the co-founder of Husk Power Systems, talked about Husk’s biogas plants in Bihar which provide power to more than 25,000 households. The plants use a waste product, rice husk, as the feedstock, and the waste product of the biogas power plant, ash, is in turn used as a material in incense sticks and provides a source of income to women in the community. The installed cost of the plants equates to \$1,200/kW, the lowest cost renewable biomass energy solution on the market. Ratnesh indicated the importance of making entrepreneurs responsible for owning and operating the plants so that the operator is incentivized to keep revenues and profits high. **Dinesh Gupta** of OMC Power described his company’s mini-grid system, which provides power to

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mobile phone towers as well as serving as a central charging station for a variety of products, from lanterns to packaged battery-power systems to electric bicycles. When asked about whether a mini-grid was a viable long-term solution by the audience, Dinesh restated that mini-grid systems with generation capacity take only up to 60 days to deploy, much shorter compared to MW-scale generation facilities.

### Creating a Sustainable Ecosystem: Operations, Management, and Maintenance of Clean Energy Systems

In the third session, **Sarah Butler-Sloss**, the Founder and Director of Ashden, moderated an animated session on creating a sustainable ecosystem for energy access.

**Hafeez Rehman** from TERI kicked off the discussion by highlighting the importance of clean cooking solutions in achieving universal energy access and of taking advantage of the synergies in the last-mile distribution networks of cooking solutions and lighting products. Hafeez also said that innovation, research and development, and solution customization to local conditions were critical to driving down cost beyond what is possible through economies of scale.



**Harish Hande**, the Managing Director of SELCO-India, asked provocatively how investors expect to find the next Google of energy access when the internet of energy access, i.e. the access ecosystem, doesn't exist. Harish also advised that investors should have 30% of their team composed of practitioners to get appropriate insights and advice on investment decisions. **Damian Miller**, CEO of Orb Energy, spoke about his company's offerings to industrial and home users and stated the importance of proper training in making his franchise-based business a success. Finally **Daniel Schnitzer**, Founder of Earthspark International and energy policy researcher at Carnegie Mellon University, presented his research findings relating to case studies of various energy access providers, including Husk Power Systems and the West Bengal Renewable Development Agency (WBREDA).

The day concluded with a networking dinner and some product demonstrations and brief introductions from representatives of Fosera Lighting, Enventure, NatureTech Infra, amongst others.

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