International Workshop

on

Decentralising Solar Solutions: Attaining and Sustaining Electricity Access for all

December 7-8, 2018

Victor Menezes Convention Center (VMCC), Indian Institute of Technology, Bombay

Lecture Hall No-22 (2nd floor)

Tentative Agenda

Friday 7 December 2018

8:00 to 9:00 am	Registration and Breakfast
9:00 to 10:00 am	**Inauguration of Workshop**
	Welcome of participants Prof. C. S. Solanki, IIT Bombay
	Introduction of participants
	Opening remarks: IITB activities on energy access Prof. A. K. Suresh, Deputy director, IIT Bombay

Session – 1 10:00 to 11:15 am		**Understanding Energy Access: How to attain and sustain?** Climate change concerns forces us to rethink energy access, not only attaining but sustaining as well. The presentations and discussions in Session 1 are expected to discuss energy access, status of energy access world over, significance of energy access? Shall we consider sustainability while thinking access? Shall we consider electricity access or complete energy access? What lessons could be learnt on-going energy access projects? Should we only consider clean energy for providing energy access? Is energy access key for sustainability?	
Session Chair		**Prof. M. Fowlie** Associate Professor, UC Berkeley, California	
45 min.	Talk-1	Energy Access and Energy Inequality	**Prof. R. Banerjee** IIT Bombay
	Talk-2	Factors impacting adoption of LPG in rural India	**Prof. P. Kumar** Boston College
	Talk-3	Sustaining energy access through localised solutions	**Prof. C. S. Solanki** IIT Bombay
30 min.	Panel Discussion		Open house

11:15 – 11:30   Tea/Coffee Break

Session – 2 11:30 am to 1:00 pm		Standalone decentralised solar solutions: technology and economics Standalone decentralised solar solutions have the potential to fill the gaps in grid infrastructure smarter and faster. For those who are beyond the reach of the grid, these standalone systems need to be recognised as the primary means of access to electricity. What is expected in terms of reliability and robustness of such systems designs? What economic model(s) can be adopted best (cash, credit, subsidy, combination of these)? How enterprises can achieve sustainable economic growth?	
Session Chair		**Mr. D. Palit** Director, Rural Energy and Livelihoods, TERI DelhI	
60 min.	Talk-1	Sustainable decentralized energy solution in South East Asian countries	**Prof. K. Sudhakar** University of Malaysia-Pahang
	Talk-2	Solar Microgrids and Remote Energy Access	**Prof. M. Fowlie** UC Berkeley
	Talk-3	Blockchain for Decentralised Transactions with Distributed Consensus	**Dr. N. Sonwalkar** Chair, EdTech Group, MIT Enterprise Forum
	Talk-4	Consumer behavior and their economic segments: economic, cognitive and psychological deprivations	**Prof. S. Sridharan** Monash UNIVERSITY
30 min.	Panel Discussion		Open house

01:00 – 02:00 pm   Lunch Break

Session – 3 02:00 to 3:30 pm		Grid-based decentralised solar solutions: technology and economics Grid-based decentralised solar solutions are considered as one of the possible means of addressing electricity and environmental challenges by offering social and economic benefits. How grid-based solutions compare with off-grid decentralized solar solutions? What are technological challenges? Are these solutions economically viable for urban as well as remote and rural areas equally? How it affects expected payback period?	
Session Chair		**Prof. R. Banerjee** Professor and Head of the Department, Department of Energy Science and Engineering, Indian Institute of Technology, Bombay	
60 min.	Talk-1	Solar Fuels as a Large Scale Solar Energy Harvesting and Storage Solution	**Prof. D. Wang** Boston College, USA
	Talk-2	Solar rural electrification	**Mr. C. Sangawar** Ashden India Collective, India
	Talk-3	Decentralised energy access implementation models	**Ms. V. Garg** International Institute for Sustainable Development (IISD)
	Talk-4	Development and implementation of	**Md. Shahriar**

		decentralized solar solutions for developing economies	**Ahmed Chowdhury** United International University, Dhaka, Bangladesh
30 min.	Panel Discussion		Open house

03:30 – 04:00 pm   **Tea/Coffee Break**

Session – 4 4:00 to 5:30 pm		**Social and environmental impacts of electricity access** Affordable, reliable and sustainable electricity access is essential for improving living standards, development and economic growth. Access to sustainable modern energy services supports health, education and livelihoods and increases resilience to atmosphere change. This session set out to examine the technical, institutional, and economic restructuring that will be necessary to achieve the goals of energy security, reliability, environmental sustainability and sustainable universal electricity access.	
Session Chair		**Prof. G. Yadama** Dean, School of Social Work, Boston College, USA	
45 min.	Talk-1	Building Institutional Capacities to Scale Mini-Grids	**Ms. A. Tozzi** University of Minnesota, Duluth
	Talk-2	Development of Decentralised Renewables in India: A Multi-level Perspective	**Mr. S. Rajagopalan** Arizona State University
	Talk-3	Rethinking energy poverty and best practices for the governance of distributed renewable energy access	**Prof. B. Sovacool** University of Sussex, United Kingdom
45 min.	Panel Discussion		Open house

Saturday 8 December 2018

Session – 5 9:30 to 11:00 am	**Social institutions and behavioral designs for scaling up** The magnitude of social acceptance of solar energy is dependent on individual behaviour that can be expressed in terms of adoption, acceptance in principle, rejection and opposition. Various social institutions like education can play a major role in bringing a sense of participation in the community. The stakeholders of the sector- administrative, policy makers etc can help to bridge a behavioural gap of individuals and this requires a strong involvement of community to make them realise the importance and sustainability of solar energy. This session set out to examine all the possible way by institutions to scale up the rural electrification and the roles that community can play.
Session Chair	**Prof. S.B. Agnihotri** Professor and Head of the Department Centre for Technology Alternatives for Rural Areas, Indian Institute of Technology, Bombay

60 min.	Talk-1	Energy Access as a Complex Social Problem: Transdisciplinary, Translational, and Boundary	**Prof. G. Yadama** Boston College
	Talk-2	Development for Clean Cookstoves in Sub-Saharan Africa & South Asia	**Mr. A. Basu & Ms. S. Kumar** Global Alliance for Clean Cook Stoves, Washington DC
	Talk-3	Addressing Energy Poverty in India: A systems perspective on the role of localization, affordability, and saturation in implementing solar technologies	**Prof. J. Venkateswaran** IIT Bombay
	Talk-4	Success story of hybrid power stations in rural areas	**Dr. J. Palta McGiligan** McGiligan Centre for Sustainable Development
30 min.	Panel Discussion		Open house

11:00 – 11:30 am　　　　　**Tea/Coffee Break**

Session – 6 11:30 am to 1:00 pm		**Policy recommendation on decentralised solar solutions** Government policies need to ascertain competitive selection processes, focus on schemes that best serve public policy objectives, ensure an exhaustive evaluation of policy influences. Government support policies also need to be aligned with existing international commitments. This session set out to examine the policies and agreements that are being utilized by government in defining the market, establishing the value proposition, setting expectations and regulations set for the electricity sector.	
Session Chair		**Dr. N. Sonwalkar** Chair, EdTech Group, MIT Enterprise Forum	
60 min.	Talk-1	Drivers and barriers to rural electrification via central grid and mini-grids	**Mr. Debajit Palit** TERI, New Delhi, India
	Talk-2	Experimental Evidence on the Economics of Rural Electrification	**Dr. Ken Lee** Executive Director EPIC India
	Talk-3	EnergyPlus for Sustaining Electricity Access and Empowerment	**Prof. B. Patil** IISC, Bangalore, India
	Talk-4	Policies for energy efficient projects in rural India	**EESL**
30 min.	Panel Discussion		Open house

01:00–01:30 pm　　　　　**Wrap up discussion for the workshop**
- Discussion on the workshop report and deadline to complete it
- Focused discussions on potential collaborative research projects

01:30 – 02:30 pm　　　　　**Lunch Break**