



# Virtual Workshop on Clean Energy: Advancing Growth of Photovoltaic Development in India

## Webinar Series

### Session 1: Operational PV Performance Data: Maximizing PV Investments

September 22, 2020

4:30pm – 4:35pm (IST) 7:00 am – 7:05 am (EDT)	Sign-on to webinar
4:35pm – 4:55 pm (IST) 7:05 am – 7:25 am (EDT)	<b>Welcome and Opening Remarks</b> <ul style="list-style-type: none"> <li>Moderator: Colleen O'Brien, Underwriters Laboratories, Principal Engineer</li> <li>Mehnaz Ansari, USTDA Representative, India, South and Southeast Asia</li> <li>Aileen Nandi, U.S. Department of Commerce, Senior Commercial Officer, India</li> <li>Jayanta Roy Chowdhury, Bureau of Indian Standards, Director of Standardization</li> </ul>
4:55 pm – 5:15 pm (IST) 7:25 am – 7:45 am (EDT)	<b>Presentation #2</b>  <b>Speaker:</b> Nick DeVries, Silicon Ranch, SVP  <b>Topic:</b> Ensuring data quality through SCADA design, installation and maintenance  <b>Q&amp;A and Discussion</b> (5 min)
5:15 pm – 5:35 pm (IST) 7:45 am – 8:05 am (EDT)	<b>Presentation #2</b>  <b>Speaker:</b> Ajay Saproo, Clear Sky Analytics, CEO  <b>Topic:</b> Performance analytics for assessment, optimization and monitoring of PV plants  <b>Q&amp;A and Discussion</b> (5 min)
5:35 pm – 5:55 pm (IST) 8:05 am – 8:25 am (EDT)	<b>Presentation #3</b>  <b>Speaker:</b> Ben Bourne, BrightNight Energy, VP, Solar Engineering  <b>Topic:</b> Increasing bifacial PV system revenue through the analysis of operational data  <b>Q&amp;A and Discussion</b> (5 min)
5:55 pm – 6:00 pm (IST) 8:25 am – 8:30 am (EDT)	Adjourn



**Virtual Workshop on Clean Energy: Advancing Growth of Photovoltaic Development in India**  
**Webinar Series**  
**Session 2: PV Module & Balance of System Durability and Reliability**  
**September 29, 2020**

4:30pm – 4:45 pm (IST) 7:00 am – 7:15 am (EDT)	<b>Welcome and Opening Remarks</b> <ul style="list-style-type: none"> <li>Moderator: Sriparn Saurabh, UL, Engineering Manager</li> <li>Tanvi Madhusudanan, USTDA: Country Manager, Indo-Pacific</li> <li>Aileen Nandi, U.S. Department of Commerce, Senior Commercial Officer, India</li> <li>Anupam Kaul, Confederation of Indian Industry, Principal &amp; Head (Quality, Metrology &amp; Standards)</li> </ul>
4:45pm – 5:05 pm (IST) 7:15 am – 7:35 am (EDT)	<b>Presentation #1</b> <b>Speaker:</b> Ms. Shikha Goyal, Bureau of Indian Standards, Scientist, Eletrotechnical Department <b>Topic:</b> Standardization on PV Modules <b>Q&amp;A and Discussion (5 min)</b>
5:05 pm – 5:25 pm (IST) 7:35 am – 7:55 am (EDT)	<b>Presentation #2</b> <b>Speaker:</b> Peter Hacke, NREL, Senior Scientist <b>Topic:</b> Application of Combined - Accelerated Stress Testing for Evaluating Durability of PV Modules <b>Q&amp;A and Discussion (5 min)</b>
5:25 pm – 5:45 pm (IST) 7:55 am – 8:15 am (EDT)	<b>Presentation #3</b> <b>Speaker:</b> Ingrid Repins, NREL, Principal Scientist <b>Topic:</b> Component Qualification and Beyond: How Standards Help Us Improve PV System Reliability <b>Q&amp;A and Discussion (5 min)</b>
5:45 pm – 6:05 pm (IST) 8:15 am – 8:35 am (EDT)	<b>Presentation #4</b> <b>Speaker:</b> David Banks, CPP Wind, President <b>Topic:</b> Assessing wind loads to ensure reliability of solar assets <b>Q&amp;A and Discussion (5 min)</b>
6:05 pm – 6:25 pm (IST) 8:35 am – 8:55 am (EDT)	<b>Presentation #5</b> <b>Speaker:</b> Parth Bhatt, Waaree Energies, Head of R&D <b>Topic:</b> PV module quality improvements through reliability and durability testing: Indian perspective <b>Q&amp;A and Discussion (5 min)</b>
6:25 pm – 6:30 pm (IST) 8:55 am – 9:00 am (EDT)	<b>Adjourn</b>



## Virtual Workshop on Clean Energy: Advancing Growth of Photovoltaic Development in India

### Session 3: Investments in Utility and Distributed Generation PV Projects in India: Challenges and Opportunities

**October 6, 2020**

<b>4:30pm – 4:45 pm (IST)</b> <b>7:00 am – 7:15 am (EDT)</b>	<b>Welcome and Opening Remarks</b> <ul style="list-style-type: none"> <li>Moderator: Rubin Sidhu, Global Director, Solar Advisory Services, Underwriters Laboratories</li> <li>Tanvi Madhusudanan, USTDA, Country Manager, Indo-Pacific</li> <li>Aileen Nandi, U.S. Department of Commerce, Senior Commercial Officer, India</li> <li>Jayanta Roy Chowdhury, Bureau of Indian Standards (BIS), Director of Standardization</li> </ul>
<b>4:45pm – 5:05 pm (IST)</b> <b>7:15 am – 7:35 am (EDT)</b>	<b>Presentation #1</b> <b>Speaker:</b> Dinesh Kumar, SB Energy, Sr. Manager, Design and Engineering <b>Topic:</b> Aggressive bidding and low tariffs: challenges vs. opportunities <b>Q&amp;A and Discussion (5 min)</b>
<b>5:05 pm – 5:25 pm (IST)</b> <b>7:35 am – 7:55 am (EDT)</b>	<b>Presentation #2</b> <b>Speaker:</b> Prasanta Patra, Astro Energy, Head of Solar Engineering Department <b>Topic:</b> Innovation and optimization in design engineering and installation <b>Q&amp;A and Discussion (5 min)</b>
<b>5:25 pm – 5:45 pm (IST)</b> <b>7:55 am – 8:15 am (EDT)</b>	<b>Presentation #3</b> <b>Speaker:</b> Saravanan Manoharan, Ayana Renewable, General Manager, Design and Engineering <b>Topic:</b> Effective Operation & Maintenance—Technology and Data <b>Q&amp;A and Discussion (5 min)</b>
<b>5:45 pm – 6:05 pm (IST)</b> <b>8:15 am – 8:35 am (EDT)</b>	<b>Presentation #4</b> <b>Speaker:</b> Jason Allnutt, IEEE, Conformity Assessment Program Specialist <b>Topic:</b> IEEE 1547: The DER Interconnection Standard <b>Q&amp;A and Discussion (5 min)</b>
<b>6:05 pm – 6:20 pm (IST)</b> <b>8:35 am – 8:50 am (EDT)</b>	<b>Presentation #5</b> <b>Speaker:</b> Venkat Rajaraman, Cygni Energy, Founder/CEO <b>Topic:</b> Powering the Last Mile: Challenges and Opportunities <b>Q&amp;A and Discussion (3 min)</b>
<b>6:20 pm – 6:40 pm (IST)</b> <b>8:50 am – 9:10 am (EDT)</b>	<b>Panel Discussion</b> <ul style="list-style-type: none"> <li>Ingrid Repins, National Renewable Energy Laboratory (NREL), Principal Scientist</li> <li>Scott Jezewski, Underwriters Laboratories, Business Development Manager, Renewable Energy- Solar</li> <li>Narendra Shiradkar, PhD, Indian Institute of Technology (IIT) Bombay</li> </ul>



<p><b>6:40 pm – 6:45pm (IST)</b>  <b>9:10 am – 9:15 am (EDT)</b></p>	<p><b>Adjourn/Closing Remarks</b></p> <ul style="list-style-type: none"> <li>- Chakradhar Byreddy, Underwriters Laboratories, Director Renewable Energy - Asia Pacific</li> <li>- Jessica Roop, American National Standards Institute (ANSI), Senior Manager, International Development</li> </ul>
--	--