

*invitation*

Putting the sun in the cloud: how big data is driving the next solar revolution

12:00 - 1:00pm, Tuesday 12 May 2015

Raghu Belur

Co-Founder, Vice President of Products and Strategic Initiatives, Enphase Energy
Theatre LG03, Tyree Energy Technology Building (H6), UNSW Australia, Kensington campus

Synopsis: Over the life of solar, a large portion of global research and investment into the sector has been directed toward efficiency and cost reduction of solar components such as PV modules. However, solar is now at a crucial point in its lifecycle. As the International Energy Agency (IEA) predicts that solar PV will be a dominant source of power generation by 2050, the solar industry is being called upon to prove that it has the ability to scale and meet the demands of future generations.

This requires a systems-based design approach based on a distributed network architecture that can evolve with the needs and expectations of consumers, government, grid operators, utilities and solar installers. The mass market commercialisation of battery storage and energy management systems is quickly becoming a reality, presenting its own unique challenges and opportunities. But can the future of engineering and science for the solar and storage industry hang on the success of putting the sun in the cloud? Will a systems and technology based approach result in scalable products for a solar-dominant future?

Enphase Energy has a view of the world's solar PV industry through its online monitoring portal; likely solar's single largest data set with 240,000 networked solar systems in over 80 countries feeding back granular data in five minute increments. Through the collection of this data, Enphase has been able to redefine the way solar power is generated and stored. Enphase collects what is often more data on the grid than network operators do and has been called upon by utilities to help them shape the future of the grid.

Enphase Co-founder, Raghu Belur, will talk about how innovation, data and a systems-based approach is poised to restructure the energy sector and change the way consumers interact with energy itself. He will also address how Australian researchers and students need to circumvent policy, industry and market limitations to drive the next solar revolution.

Raghu Belur has more than 20 years of experience in the clean energy and high technology industries. Prior to Enphase, he developed high-speed optical communication technology for Cerent, which was later acquired by Cisco Systems for \$7 billion. Before Cerent, Raghu was an engineer at the Indian Institute of Science, where he played a key role in the development of an alternative energy gasification system. He co-founded Enphase Energy with Martin Fornage in 2006. Raghu has a MSEE from Texas A&M University and an M.B.A. from the Haas School of Business at UC Berkeley.

Enphase Energy delivers microinverter technology for the solar industry that increases energy production, simplifies design and installation, improves system uptime and reliability, reduces fire safety risk and provides a platform for intelligent energy management. Our semiconductor-based microinverter system converts energy at the individual solar module level and brings a systems-based, high technology approach to solar energy generation.

This event is jointly organised by the Centre for Energy and Environmental Markets (CEEM) and the School for PV and Renewable Energy Engineering at UNSW Australia.

Directions: All visitors are welcome. Theatre LG03 is on the lower ground floor of the Tyree Energy Technology Building, close to the main Anzac Parade gate of the Kensington Campus. A map is available at <http://www.facilities.unsw.edu.au/Maps/maps.html> and the TETB Building is located at (H6).