

# Utility-Scale Solar PV: Grid Integration Challenges and Opportunities

Joint Electrical Institutions Sydney - Engineers Australia, IEEE, IET



## DATE & TIME

Thursday, 12 February 2015  
5:30 pm for 6:00 pm start

## VENUE

Engineers Australia Harricks  
Auditorium  
Ground Floor, 8 Thomas Street,  
Chatswood NSW 2067

## COST

EA, IET, IEEE Members – Free  
Students – Free  
Non-members - \$30

## CPD

Eligible for 1.5 Continuing  
Professional Development hours.

## RSVP

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Joint Electrical Institutions Sydney



The Knowledge Network

## Presentation by Chris Wilson, Project Development Engineer, First Solar



As utility-scale photovoltaic (PV) power plants become a reality in Australia it is crucial that these plants have the systems and controls necessary to reliably support grid stability. This is particularly the case when PV penetration grows to the point of making a significant contribution to the grid requiring network support features such as voltage regulation, active power control, ramp-rate control, fault ride-through, frequency control and others. Owing to the modular nature of utility-scale PV, a plant-level control system, which controls a large number of individual inverters at the grid-connection point, becomes the key enabler.

This presentation looks at the typical utility-scale PV plant architecture and the key differences in performance and controls compared to synchronous machines. The presentation also looks at some of the experiences and challenges in building utility-scale PV power plants in Australia and how they are supporting grid-stability.

### Who is First Solar?

First Solar is Australia's leading provider of utility-scale PV systems with four projects currently under construction, including the largest in the southern hemisphere, the 102MW Nyngan Solar Farm.

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## SPEAKER BIOGRAPHY

### Chris Wilson

Chris Wilson is a Project Development Engineer with First Solar, Australia. Chris has near 10 years' experience in the solar PV industry, developing, designing, constructing, financing and operating solar power projects throughout Australia. He has worked with leading organisations to deliver noteworthy solar power projects such as the 20MW Royalla Solar Farm, 56MW Moree Solar Farm and is now working to develop First Solar's utility-scale PV projects in Australia and more broadly in the Asia-Pacific region.

**For further information contact– Trevor Blackburn**

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