U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

SOLAR ENERGY TECHNOLOGIES OFFICE

Solar Forecasting

DOE-supported projects

ESIG Workshop on Meteorology and Market Design for Grid Services

June 5 2019, Denver

energy.gov/solar-office

Chair: Tassos Golnas

Irradiance Forecasting

- Is the solar forecasting community leveraging the R&D from the broader meteorology community? How can it benefit more from the tools, datasets, and models that are developed by the latter?

- What types of ground (or other) measurements from existing sources would be really useful in improving existing forecasts? (focus on measurements that already exist, or are easy to make, but are not currently assimilated into the models).

- What are some high-risk approaches that, if successful, could significantly improve forecasting efficacy (reduce the *error * computation_time* product)?

Q & A

Solar Power Forecasting

- What have been the biggest challenges (technical or legal) in getting access to power data from PV systems? Has there been any change in how data owners approach data sharing after discussions with researchers?

- How do you think IoT and 5G communications will affect forecasting? Are there applications where communication bandwidth is a real bottleneck for forecasting applications? (as opposed to cost of computation)

- What is your recommendation wrt quantifying the value of a forecast? What are some aspects that forecast users need to take into account?

- Under what scenarios is better than hourly resolution important for day-ahead forecasts?

Q & A