



(Co-located with **Renewable Energy Asset Management**)

Day 1: Wednesday, October 7, 2015

12:30-1:30 *Registration and Networking Breakfast*

1:30-1:45 **Chairman's Introduction**

1:45-2:30 **The Solar O&M Marketplace – Evolving Trends and Developments in North America**

- Size of installed PV and ownership patterns
- Impact of post-warranty installations
- O&M costs trends: true costs, contract pricing and cost reduction efforts

2:30-3:30 **Panel: Solar Asset Owners', Investors' and Lenders' Perspectives on O&M**

- Compare and contrast utility-scale versus C&I versus residential solar systems
- Major considerations when deciding to in-house versus outsource O&M
- The feedback loop from owner to asset manager to EPC to O&M provider
- Relationship with the O&M market and providers
- Perspectives on O&M and future asset valuation and bankability
- Importance of O&M data for project financing and underwriting
- Implications of O&M on solar securitization opportunities

Panelists:

Katherine Janik, *Senior Director, Asset Management, SOL SYSTEMS*

David Kenny, *Director Fleet Operations, SUNRUN*

3:30-4:00 *Networking Break*

4:00-5:00 **Panel: Aligning Owner and O&M Providers Interest**

- Contract compliance management strategies
- Going beyond "performance ratio guarantees"
- Sharing the upside of meeting and/or exceeding key financial performance metrics

Laura Stern, *President, NAUTILUS SOLAR*

5:00 *End of Solar O&M Summit Day 1*

Day 2: Thursday, October 8, 2015

8:00-9:00 *Networking Breakfast*

9:00-11:30 **Panel and Case Studies: Best Practice in System Optimization and Maintenance**

- Compare and contrast O&M strategies for a portfolio of utility-scale PV projects versus smaller portfolio of rooftop PV systems
- Going beyond system maintenance to balance short-term and long-term operations costs and increase returns
- Strategies for fulfilling a large geographic area
- Going beyond reactive maintenance
- Budgeting appropriately for components replacements
- Maintaining quality control, safety standards when subcontracting

9:00-9:30 **Presentation: Robotics for PV System Maintenance**

9:30-10:00 **Presentation: Fleet versus Site Optimization**

10:00-10:30 *Networking Break*

10:30-11:30 **Panel Discussion**

11:30-12:00 **Presentation: Latest Development in UAV's (Drones) – Regulation and Use**

- Latest regulatory status update
- Value to the operation and maintenance community
- Where and what project situation best suited for use
- Impact on contract cost/bid

12:00-1:30 Group Luncheon

1:30-2:15 **Panel: Best Practices and Developing Standards in Solar PV O&M**

- Latest on efforts on PV O&M standards and best practices
- Compare and contrast PV O&M standards for utility-scale versus residential and C&I

2:15-3:15 **Panel: Next Generation Monitoring, Data Analytics and Reporting**

- Understanding the different requirements of different asset owners (utility versus financial)
- Compare and contrast solutions for utility-scale PV versus C&I and residential systems
- Ensuring documentation and data flow
- Analyzing long-term performance trends to optimize O&M plans
- Leveraging Big Data to optimize plant performance
- Streamlining data communications between organizations using common languages and taxonomies such as XBRL and IEP XML

- The benefits of sharing anonymized data (energy, weather, financial, etc.) to increase understanding, attractiveness and reliability of the renewable energy asset class to institutional investors and the securities markets

3:15-3:45 Networking Break

3:45-4:30 **Panel: Equipment Warranties – Experience, Developments and Improvements**

- What are the most frequent warranty claims? Utility versus distributed generation projects
- Dealing with grey areas of liability and responsibilities between EPCs, equipment manufacturers and O&M providers
- Developments in different contracts and business models
- Lessons learned to date

4:30-5:15 **Panel: Storage and PV Systems**

- Understanding the O&M needs of storage systems including different automation of control systems, wiring, etc.

Jeff Gilbert, *Director of Operations and Maintenance Services*, VIGILANT ENERGY MANAGEMENT

5:15 *End of Solar O&M 2015*