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O&M Workshop Panel Session: Current O&M Practices

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Panel Session: Current O&M Practices Sandia National Laboratories

Panelists:

- *Srini Devarajan, ViaSol Energy Solutions*
- *Larry Freeman, EDF Renewable Energy*
- *Aaron Marroquin, NRG Energy*
- *Jordan Shechter, Enfinity*
- *Steven Ng, PG&E*

- The panel discussed current practices and what's missing in current O&M practices.
- Below and next page are the areas noted of what is missing.
 - Impacts of system designs on inverter reliability
 - Standardized cost vs. performance gain model for O&M
 - True operations planning and management
 - Fast analysis techniques
 - Managing spare parts, interchangeable parts, cannibalizing systems.
 - Managing legal concerns over 3rd party components.
 - Designing and building for maintainability (design standards)
 - Modeling for post-warranty O&M costs, requirements
 - Conductors, tie-wraps, conduit, critters: what are best practices?
 - Commissioning practices that include O&M from the start
 - Managing both power and energy

What's missing in current O&M practices?

- Believable soiling models
- Best practices and good ROI models for washing
- Clarity in best practices
- Asset management practices
- System (construction, other) documentation
- Need an O&M budget
- Defined scope, risks allocated
- Emergency response standards
- Safety and LOTO
- Unclear what data analysis techniques should be used, sampling rates (data storage requirements vs fault detection times), handling of sensor errors – false alarms.
- What's a good mix of proactive and reactive O&M at different sites