The PV Reliability Operations Maintenance Database – Current Efforts by Sandia Labs and EPRI to Improve PV System Reliability

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Abstract

Sandia National Laboratories, in coordination with the Electric Power Research Institute (EPRI) is currently working with solar PV system operators to develop a standardized data entry, analysis and reporting framework as part of the PV Reliability, Operations Maintenance (PVROM) database initiative. Data collected on system faults and events will be used to inform the solar industry of current O&M related challenges with an eye towards continual improvement of O&M practices. Most importantly, this information can be used in coordination with industry to help develop both best practices and consensus standards that when implemented, will improve current and future PV system design and result in decreased financial exposure risk at various stages in the PV system's lifetime. PVROM database elements and analysis results will be presented and mapped to areas where Sandia and others are leading best practice and standards activities.

Benefits to partners:

- Secure access to XFRACAS[®] platform on Sandia's Open Network
- Data anonymity enforced by a Sandia-generated NDA

Determine impacts to system performance based on actual and projected events Better understanding of system costs and cost-benefit of multiple O&M approaches based on various factors





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System Status

iii – ...and how it was repaired or replaced

	20 characters	Number	20 characters	10 characters	100 characters	50 characters	50 characters	50 characters	50 characters	Date/
Unique Identifier	Incident ID	ltem Order	Old Part Number	Old Part Version	Old Serial Number	Failure Type	Disposition	RMA	Sales Order Number	RM Da Rece

iv – Enter new Incident Data and how it was repaired or replaced

PV Module

(Blank version of completed *incident report shown here)*

> Incident status & summary

Incident component detail

Incident high level detail

Different fault codes can be categorized

Incident repair date & duration

Replacement part information

Labor and repair costs can be entered



The information contained here does not include confidential information and is suitable for public release



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