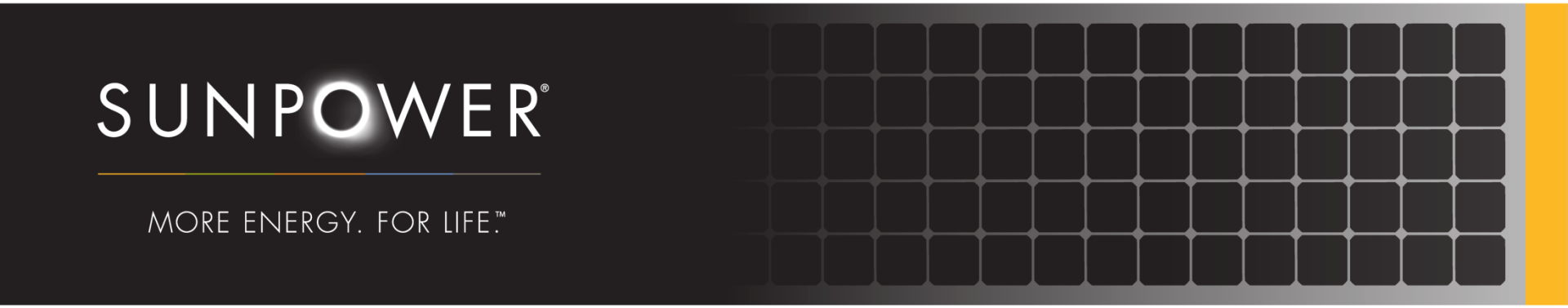
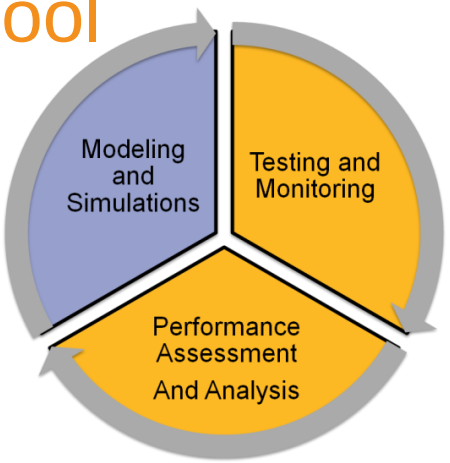



# PVSim – SunPower's PV Simulation Tool

Ben Bourne

Presented at the 2013 Sandia PV Performance Modeling Workshop
Santa Clara, CA. May 1-2, 2013
Published by Sandia National Laboratories with the Permission of the Author

# Why SunPower Maintains an In-House Tool




**SunPower systems are investments**

- Customers need to know how much power and energy their system will produce over time
- SunPower needs to know how to price these systems
- SunPower needs to be able to demonstrate performance

**SunPower selects, develops and assembles the best models**

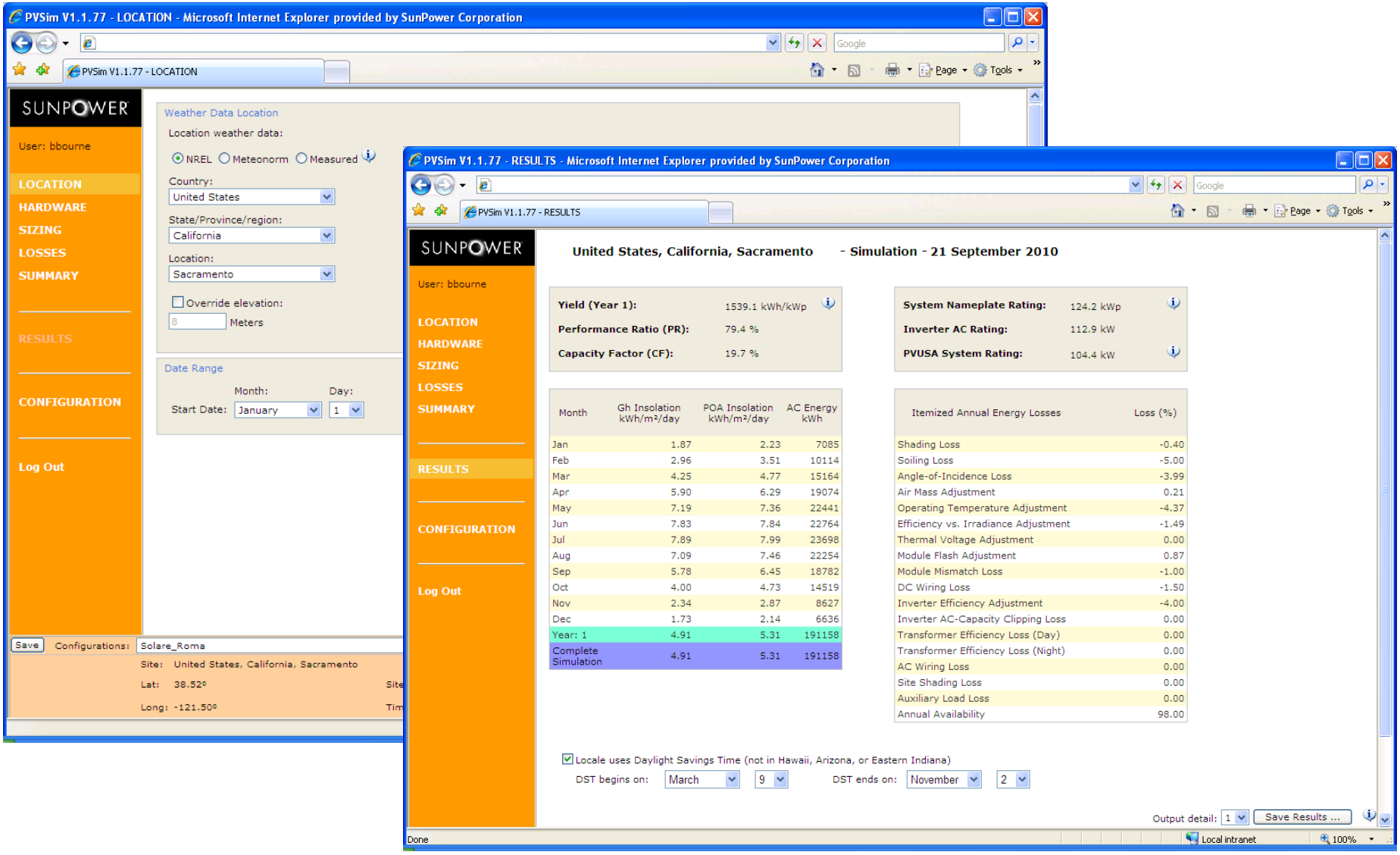
- Publicly available/published models (irradiance, Sandia performance, soiling)
- Proprietary models (tracking, shading, thermal, etc.)

**Ongoing Validation**

- PVSim accuracy is based on measured data from our vast fleet
- PVSim allows us to explicitly model our current, future and conceptual products with a high degree of accuracy


© 2013 SunPower Corporation

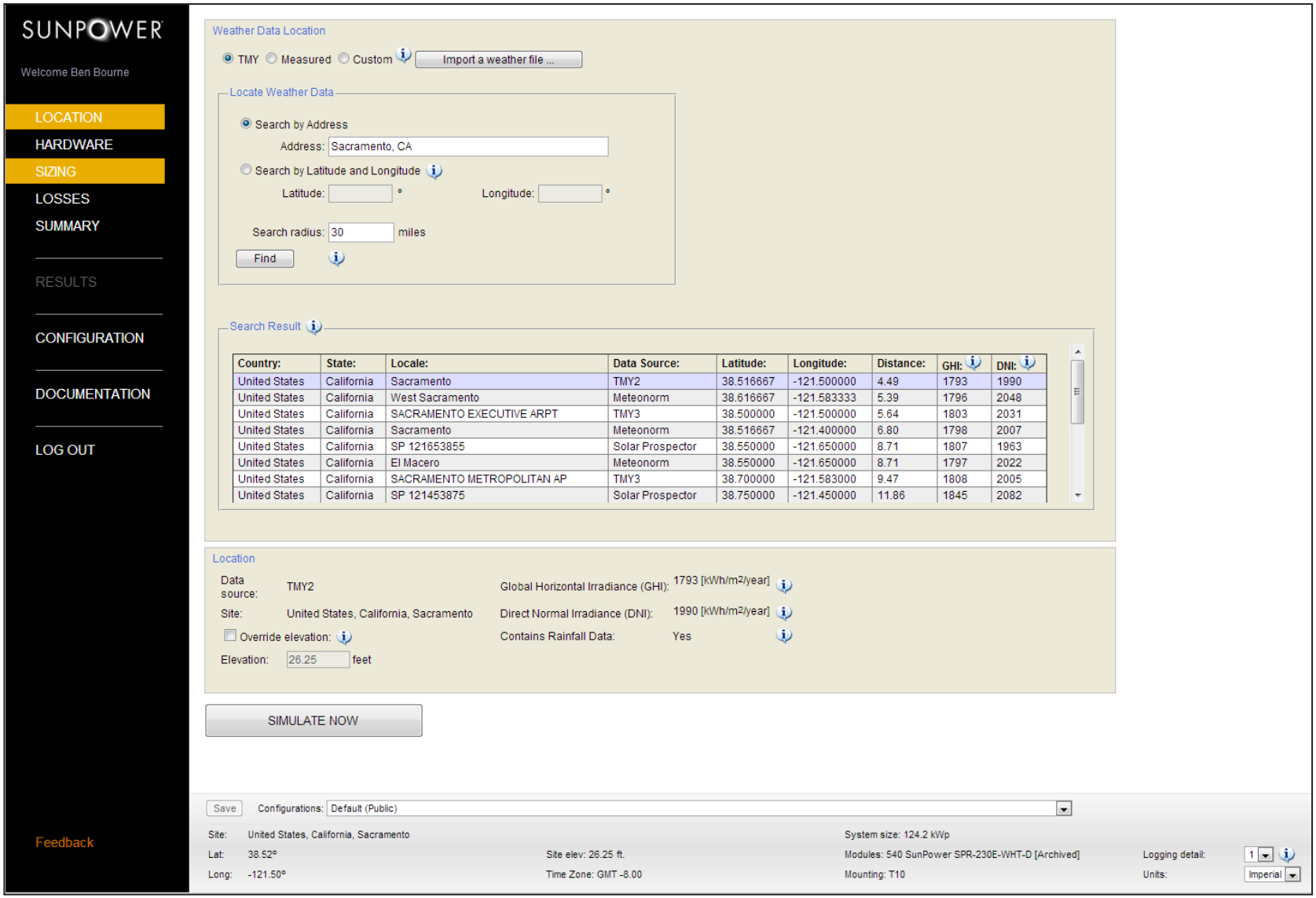
# PVSim v1 – Introduced at the Previous Workshop





© 2013 SunPower Corporation

# PVSim v2.3 – Current Release & Demo

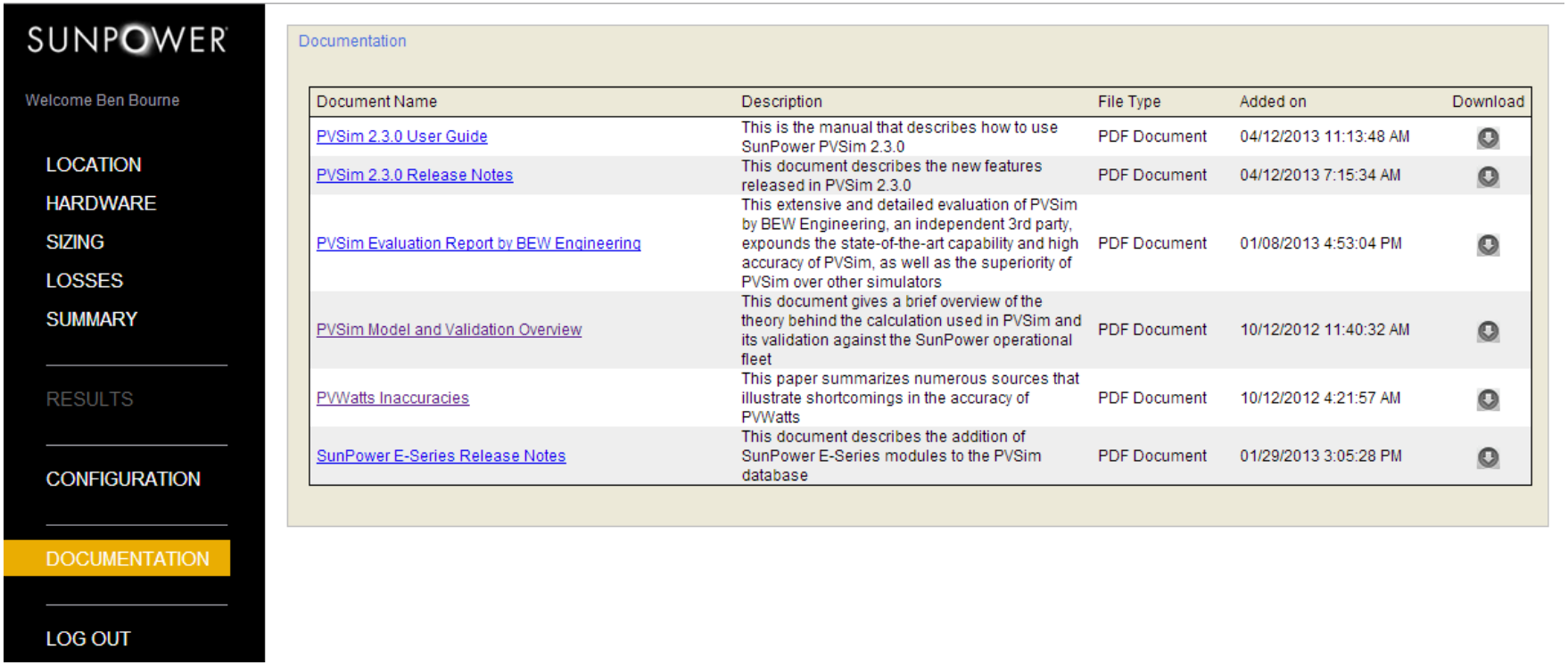


# Why SunPower Maintains an In-House Tool

## How to register as a PVSim user

- Go to https://pvsim.sunpowercorp.com and click on the registration link to submit your request

## Documentation & References





© 2013 SunPower Corporation

SUNPOWER®

MORE ENERGY. FOR LIFE.™