Welcome and Introduction to the PVLIB User’s Group Meeting

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Topics for this Meeting

Morning Session
1. Introduction to PVLIB (Python)
   - GitHub
   - Function conventions
   - Test scripts
   - Documentation
   - Dependencies with other Python packages
2. Introduction to PECOS (Python)
   - Utility for quality control of monitored time series data, including running PVLIB models.
3. Introduction to CIRCUS (Python)
   - SunPower open source for standardizing model applications
   - Update on newest features for PVLIB (Matlab)

Afternoon Session
1. Feedback from users
   - How are you using PVLIB now?
   - What do you wish it could do?
   - What is holding you back from contributing?
   - How can we increase active participation in the project?
2. Open session with PVLIB experts
   - Personalized help on projects
   - Work on examples
   - Try out what was discussed in the morning
A bit of History

- Matlab version started as an internal tool at Sandia in 2010-2011 developed to help standardize analyses across the PV group.
  - PVLIB Version 1.0 – May 2012 – 29 functions
  - PVLIB Version 1.1 – Jan 2013 – 38 functions
  - PVLIB Version 1.2 – Dec 2014 – 44 functions
  - PVLIB Version 1.3 – Dec 2015 – 59 functions
- Python version was initially developed from 2013-2014 by Rob Andrews under contract from Sandia.
- 2015 Python PVLIB converted to Open Source GitHub project largely managed by Will Holmgren at University of Arizona.
Usage Statistics

- PVLIB Matlab has been downloaded over 2,660 times
  - Used at many universities for class projects and research
  - Used at many companies

- PVLIB Python
  - PyPI: 5,509 total downloads
  - Anaconda.org: 498 downloads
  - Clones from GitHub: 111 (17 unique in last 3 weeks)

Getting usage statistics is important for obtaining future funding for this project. We need to show that we are making an impact!
What is next?

- We need to follow more conventional Open Source conventions for the Matlab version
  - GitHub distribution
  - Testing
  - Documentation
- We need to figure out how to keep Matlab and Python versions consistent.
- We need to build a larger team to maintain the software into the future.
- How best to interface with other software (PECOS, CIRCUS, etc.)?
- What should be the next event?
- What are the best opportunities for further development?
Thank You and Enjoy the Workshop!

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