

# TAC Annual Review OpenDSM



- Rename/release of OpenDSM has been completed
  - New repository structure
- Releases:
  - 1.0.0
- Most contributions from Recurve, three outside contributors (WattCarbon, Carbon Co-op)
- Several organizations interested in OpenDSM beyond contributors:
  - National Renewable Energy Laboratory (NREL)
  - CLEAResult
  - Enerva
  - E Source
  - Used in OpenEAC

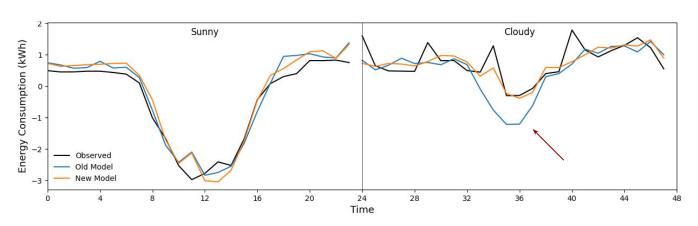




- One ongoing working group initiative (Hourly model)
  - Automatic segmentation of day type (summer work day, fall weekend, etc)
  - Adds solar irradiance for solar PV generation buildings
  - Adaptive downweighting of outliers during model fit for each building
  - 5x faster than previous hourly model
  - Report to be submitted to the Working Group for model acceptance
  - Working Group attendees peaked at ~50, regularly 20. Great ideas/feedback







Old model: Good on sunny days because majority of training data is sunny

New model: Good on both sunny and cloudy days





## While models have been improving

- Scale of use continues to grow and is stepping outside of just "performance" based programs
  - In 2024-2028, CA energy efficiency programs must be measured where "feasible or cost effective"
  - Inflation Reduction Act measured pathway spanned 10 states with either mandates/requests for measured proposals/pilots (CA, WI, MI, FL, GA, KS, MT, AZ, MN, VA)
  - OpenEEmeter was the foundation for predictive analytics in an "Electrification Value Stream Analysis" providing essential actionable intelligence for program optimization on the potential bill impacts of installing a heat pump for space heating or water heating





## While models have been improving

- OpenDSM continues gaining recognition as a standard
  - New Jersey BPU reviewed and approved OpenEEmeter as a standard for "measured programs" in their Technical Reference Manual
  - U.S. Department of Energy had NREL review and test OpenEEmeter as the standard for the Inflation Reduction Act "measured" pathway for residential rebates
- Code for complementary applications for comparison groups and demand response are accelerating



# Requirements - Early Adoption



Assessment of whether the project is fulfilling the requirements for the project to remain at its current stage [incubation], or be considered for a different stage

- Demonstrate growth in the project's community, including
  - Growth in the number of commits to the project, number of project committers, and organizational diversity of contributions and committers (29 unique comitters, 3 + organizations).
  - Production or planned production use of the project by at least two independent end users which, in the TAC's judgment, are of adequate quality and scope.
- Technical Governance of the project is operational, as measured by:
  - A Technical Steering Committee with at least 5 members and a chairperson elected by the members, holding regular open meetings. [ Have 5 members, TS acting as chair ]
  - Achievement of the OpenSSF Best Practice badge at the 'Silver' Level (87%)



# Requirements - Early Adoption



Assessment of whether the project is fulfilling the requirements for the project to remain at its current stage [incubation], or be considered for a different stage

- Development of a growth plan, to be done in conjunction with their project mentor(s) at the TAC. This plan should address the following points: [ ]
  - Since these metrics can vary significantly depending on the type, scope, and size of a project, the TAC has final judgment over the level of activity that is adequate to meet these criteria.
  - Release plans for the next 18 months.
  - Target end-users.
  - Identification of any regulatory or standards body requirements for deployment, and plans for implementation.
  - Plans for growth of project contributors and committers to support the growth plan.
  - Identification of any infrastructure resources needed to fulfill the growth plan.
- Presentation to the TAC of the project's growth, technical governance, and growth plan. [ ]
- Receive the affirmative majority vote of the TAC and Governing Board [ ]





Feedback on its experience as an LF Energy project, including benefits from being an LF Energy project and areas that the TAC and LFE staff can better support the project.

- Experience as an LF Energy project has been positive.
  - Support in explaining open-source and it's value to our industry
  - Provides reference point of "acceptance" for the market
  - Provides access point for the industry from a trusted source
  - Policy positioning for open-source transparency
  - Other potential collaborating projects
  - New branding/website for OpenDSM look amazing

### Looking forward to

- Seminar on the new hourly model when it comes out
- Investigating utilization and connecting with OpenSynth

