

Building Energy Smart Technologies (BEST) Center IAB Meeting

CU Boulder April 20th 2023

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An Overview of NREL's Building and Urban Energy Modeling Research and Development

Abstract:

This presentation will give an overview of NREL's building and urban scale energy modeling research and development. This will include discussion of current development for EnergyPlus, OpenStudio, and URBANopt, and of market adoption of these tools. It will also provide an overview of NREL building stock modeling efforts (ResStock, ComStock, and the End-Use Load Profiles Study for the U.S. Building Stock. Building Portfolio) and NREL's building portfolio tools (Standard Energy Efficiency Data (SEED) Platform and BuildingSync). Developments around hardware in the loop simulation will be introduced, and how these are supporting research at NREL's Energy Systems Integration Facility (ESIF). Team members from some of the projects discussed will be available to answer questions at the end of the presentation.

Biography:

David Goldwasser has been a researcher and software engineer for the National Renewable Energy Laboratory's Buildings and Thermal Sciences Center, Commercial Buildings Research Group, since 2010. He has been on the OpenStudio team throughout this time, supporting OpenStudio development, industry engagement, and projects that leverage OpenStudio including the ASHRAE advanced energy guides and Urban Renewable Building And Neighborhood optimization (URBANopt). David also supports NREL's Industrialized Construction Innovation efforts for new and existing buildings. David has a Master of Construction Management from Washington University and a Bachelor and Master of Architecture from Tulane University.

