IBPSA Project 2: BOPTEST
Task 3 Emulator development
Virtual Progress Meeting
9/2/2025
7:30 AM –8:30 AM U.S. Pacific Time

Participation

	Name	Affiliation
1	Ettore Zanetti	LBNL
1	David Blum	
1	Guowen Li	Texas A&M

Minutes:

Current Emulator developments

• Large Office [Yan, Xing] –

Large office merged to master branch. However, some other issues arose that needed addressing #782 (documentation, configuration file), another issue on Spawn of Energy plus coupling, switching from the thermal zone adapter to the more proper Buildings thermal zone model, which handles latent loads better, and is more easily maintained. Results are not too different, but still better for the aforementioned aspects. Next updates will include using the thermal zone E+ zone capacitance multiplier, using NIST suggested values, and Building 9.1.1, 9.1 had a bug that does not allow it to properly handle capacity multipliers. Xing will push the PR next by the end Friday the 12th.

• Twozone Apartment Hydronic [Ettore]

    Two Zone Model will be updated with DER and Storage.

• DTU emulators [Matthias]

    Residential test case close to completion and almost ready for review. School still under development.

• ETS emulator [Kun]

    Kun's postdoc Hongwen Dou has made progress on the test case development: the main update is that he has made a first draft on the thermal storage model development and is in the process of refining it. Hopefully he can give a presentation about this model during the October 6th meeting.

Feedback from BS2025
The IBPSA Project 2 presentations and workshop were well received. We received a lot of feedback including:

- Possibility to change parameters (such as PID tuning) through API.
- Add test cases with shading control. This would require implementing test cases with visual comfort (not possible to properly control shade control otherwise). David carried out studies co-simulating Modelica and Radiance for this purpose: https://escholarship.org/uc/item/1zm0j5gq
- Add online tutorials for the different uses of BOPTEST

Miscellaneous
Cas Bex will present YARDS at the International 2025 Modelica Conference in Lucerne.