IBPSA Project 2: BOPTEST
Task 3 Emulator development
Virtual Progress Meeting
07/08/2024
6:00 AM –7:00 AM U.S. Pacific Time

Participation

	Name	Affiliation
1	David Blum	LBNL
1	Ettore Zanetti	
1	Iago Cupeiro Figueroa	Denergy
1	Alireza Yaghoubi	École de Technologie Supérieure (ÉTS)
1	Kun Zhang	
1	Li Guo	Texas A&M, exchange at PNNL
1	David Wölfle	FZI Forschungszentrum Informatik
1	Zhe (Walter) Wang	Hong Kong University of Science and Technology

Minutes:

Current Emulator developments

Multizone Hydronic Simple [Bart, Iago]

> Iago made a pull request to fix David's comments. AHU Port that reads the wrong temperature value was fixed. FCU preconditioning control was wrong and updated. AHU simultaneous heating and cooling, it seems like hysteresis values were overlapping it happened in the Summer. Iago fixed it but he did not run a full year simulation. Dave to test full year in OCT.

• Large Office [Yan, Xing] –
> Xing will have more time to address comments this month from Kun. Guowen Li intern at PNNL will help with this effort.

• ADRENALIN Emulators and general update [Harald] – no update. Probably close to starting [competition](#)

• DOPTEST [Javier]
> Currently no stable DOPTEST version and one of the difficulties faced iis the model complexity of the integrated district models in OpenModelica for the FMU generation. However, recently defined a new subtask in KU Leuven which is meant to use DOPTEST. Cas Bex has tried to get DOPTEST running. He mainly focused on the workflow to get a wrapped

model from the original Modelica model. He will present his work in the August meeting.

- Twozone Apartment Hydronic [Ettore]

    Laura sent an updated BOPTEST model to Ettore, he will take care of updating the model.

New emulators proposals
Ali test case presentation discussion
Presentation on potential new testcase:
Archetypical primary school in Montreal. 25 zones, envelope properties from Ashrae 90.1 and geometry from modified version of DOE building stock archetypes. Electrical boiler coupled with electrical brick high temperature thermal storage. The model will be done using Spawn of Energy Plus. For more details check presentation on BOPTEST task 3 page.