

I²SL Laboratory Benchmarking Working Group: Conference Call, 9 August 2017 Meeting Minutes

Attendees: Luci Keazer, Dan Doyle, Jacob Werner, Paul Mathew, David Landman, Justin Lewis, Ludmilla Pavlova-Gillham, Phil Wirdzek, Matt Erwin, Syam Kumar Prabhakaran, Alison Farmer

1. Intros + thanks to all who called in during vacation season!

2. DOE Funding Update

- Phil Wirdzek gave an update on I²SL's progress towards finalizing the DOE funding for a new lab benchmarking tool (associated with the Smart Lab Accelerator Program).
- I²SL hopes to have funding in place by the end of September.
- LBL's funding for their side of the I²SL/LBNL collaboration to create the new tool has been confirmed.

3. Upcoming I²SL Annual Conference

- There will be several benchmarking-related presentations and activities at the conference.
- Alison will be speaking on Tuesday 17 October (with Quentin Gilly from Harvard) on the Boston Green Ribbon Commission's lab benchmarking study published earlier this year (and on the update coming out in September). The initial study report is available here:
<http://www.greenribboncommission.org/document/boston-area-lab-energy-benchmarking-study/>
- I²SL is planning on holding a symposium on the Wednesday morning which will introduce the tools under development as part of the Smart Labs Accelerator program. This will include a presentation on the existing and new lab benchmarking tools, and may also focus on the metering needed to obtain good usage data for benchmarking and setting performance baselines.
- The lab benchmarking group will hold an in-person meeting right after the official close of the conference on Wednesday afternoon (at 1pm). Please plan your travel to allow you to stick around for the group meeting!

4. Labs21 Benchmarking Tool Peer Group Update

- Paul Mathew told us about this year's benchmarking peer group update, which was just completed last night!
- The peer group is the set of buildings with which tool users can compare their buildings. Not all user-submitted buildings make it into the peer group – the ~once-a-year update process involves data quality checks to make sure that only real buildings with reasonable properties make it into the searchable database.
- The peer group now includes 760 buildings, which is an impressive number! This represents an increase of about 120 buildings since last year. Thanks to Paul, Travis, and Dan at LBNL for all their work on the update!
- Many of the new buildings this year come from climate zone 5A (now the most populous zone in the peer group, according to Paul).
- Geographical gaps in the dataset were discussed: gap areas include the southeast and mountain zones. Group members mentioned clients or facilities in those areas who might be persuaded to contribute data. We will plan on reaching out once we know what fields we'll be requesting in the new benchmarking tool.



Welcome to the Labs21 Benchmarking Tool!

Use this tool to compare the energy use of your lab buildings with that of similar facilities in the US. The tool's database contains owner-submitted data from an ever-growing number of lab facilities.

Buildings in database: 760

Last database update: August 2017

Enter Data

Enter your data into the database.
Your facilities appear in output reports.
Username and password required.

View Data

View data already in the database.
Output reports show database facilities only.
No login required.

5. Outside Interest and Possible Collaborations

- a. Alison reported on recent enquiries from both BREEAM (In-Use) and ASHRAE (bEQ) on lab benchmarking and energy rankings for lab buildings.
- b. I²SL will advise ASHRAE on our preferred methods for lab benchmarking. Stay tuned for more info following the ASHRAE winter conference (which will be held in January).

6. Group Discussion

- a. The group conducted a lively discussion on the merits and drawbacks of energy scores; on lab building classifications; on the purpose of benchmarking; and on better normalizing functional requirements for lab buildings.
- b. Possible normalizing factors include: area under filtration (clean rooms, etc), required ventilation rates (always problematic), and a measure (to be determined) of density of use. The treatment of plug loads as a normalizing parameter was also discussed.
- c. Justin asked about the LEED O&M benchmarking procedures. Paul referred Justin to the guide available on the Labs21 tool website:
<https://labs21benchmarking.lbl.gov/docs/Applying+Labs21+Benchmarking+for+LEED-EB+12-13-10.pdf>
- d. These discussions will pick up pace once I²SL has tool development funding in place. We hope that this will really kick off at the Annual Conference in October... stay tuned!

7. Next Meeting

- a. At the Annual Conference in Boston in October: 1pm on Wednesday 18 October. Please join us!

Minutes prepared by Alison Farmer
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