I²SL Lab Benchmarking Working Group

In-Person Meeting, I²SL Annual Conference, Boston, 10/18/2017

<u>Attendees</u>: Sandy Morgan (USDA), Marcell Graeff (Wilson Architects), Linda Morrison (Ambient Energy), Alan Fox (AECOM), Joseph Wenisch (Integral Group), Charlie Johnsrud (Johnsrud Architects), Jacqueline Camenisch (Wilson Architects), Michelle Fennell (BR+A), Alison Farmer (kW Engineering) – Chair.

<u>Minutes</u>:

1) Intros and discussion of each attendee's interest in lab benchmarking and requests for features to be included in the new (proposed) Labs21 tool.

2) Data fields suggested for inclusion:

   a. Age of building

   b. Applicable energy code when building was constructed

   c. Whether building would be considered a high-performance facility

   d. Water usage (discussion about how this would be helpful for sizing rainwater collection systems where their use is permitted by law)

      i. Water meters aren't cheap

      ii. Federal buildings: use of meters is mandated where cost effective. This is open to interpretation. Hawthorne effect: 2% savings from just metering.

   e. Submetered special end uses, e.g. data centers

   f. Other metrics for comparison, e.g. LPD, min nominal ACH

   g. A measure of building efficiency, net to gross, # scientists per square foot

   h. End use breakdown (especially plug loads)

   i. Process cooling, steam loads

   j. Lab complexity (some measure of this)

   k. Multiple years of data – demonstrate trends (we already have this for some buildings).

3) Other requests/suggestions/ideas:

   a. A way to find nearest matches in the database.

   b. Automatic upload from Portfolio Manager, or ask for a one-time data submission from federal organizations (data already in PM; staff would need to add lab-specific items).

   c. Can data be obtained from GBCI for LEED-certified buildings?

   d. Not every data submission needs to be highly detailed – just need a core dataset against which others can be compared.

   e. A/E firms generally do not experience pushback when sharing data with the Labs21 database.

   f. A way to use the tool to inform energy modeling inputs and to compare energy models with reality.

   g. I²SL can target specific areas of parameter space where data is desired.

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