2013 BBA Efficiency Forum
Plug and Process Loads Breakout Session

Overcoming Barriers to Reducing Plug and Process Loads

- Agenda
  - Welcome and overview of BBA PPL project team
  - Round the room introduction of members, manufacturers, and attendees from the public
  - Update: FY13 PPL Power Requirements and Capacity Analysis project
  - State of the Industry: Plug Load Measurement and Control
  - Brainstorming session focusing on overcoming high-impact barriers that members are currently facing

Round the Room Introductions

- Please state:
  - Your name
  - Your company

  - One barrier that you have encountered this year in trying to reduce plug loads

  OR

  - One success that you have had this year in reducing plug loads

Update: FY13 PPL Power Requirements and Capacity Analysis project

PPL Capacity Analysis Project Recap:

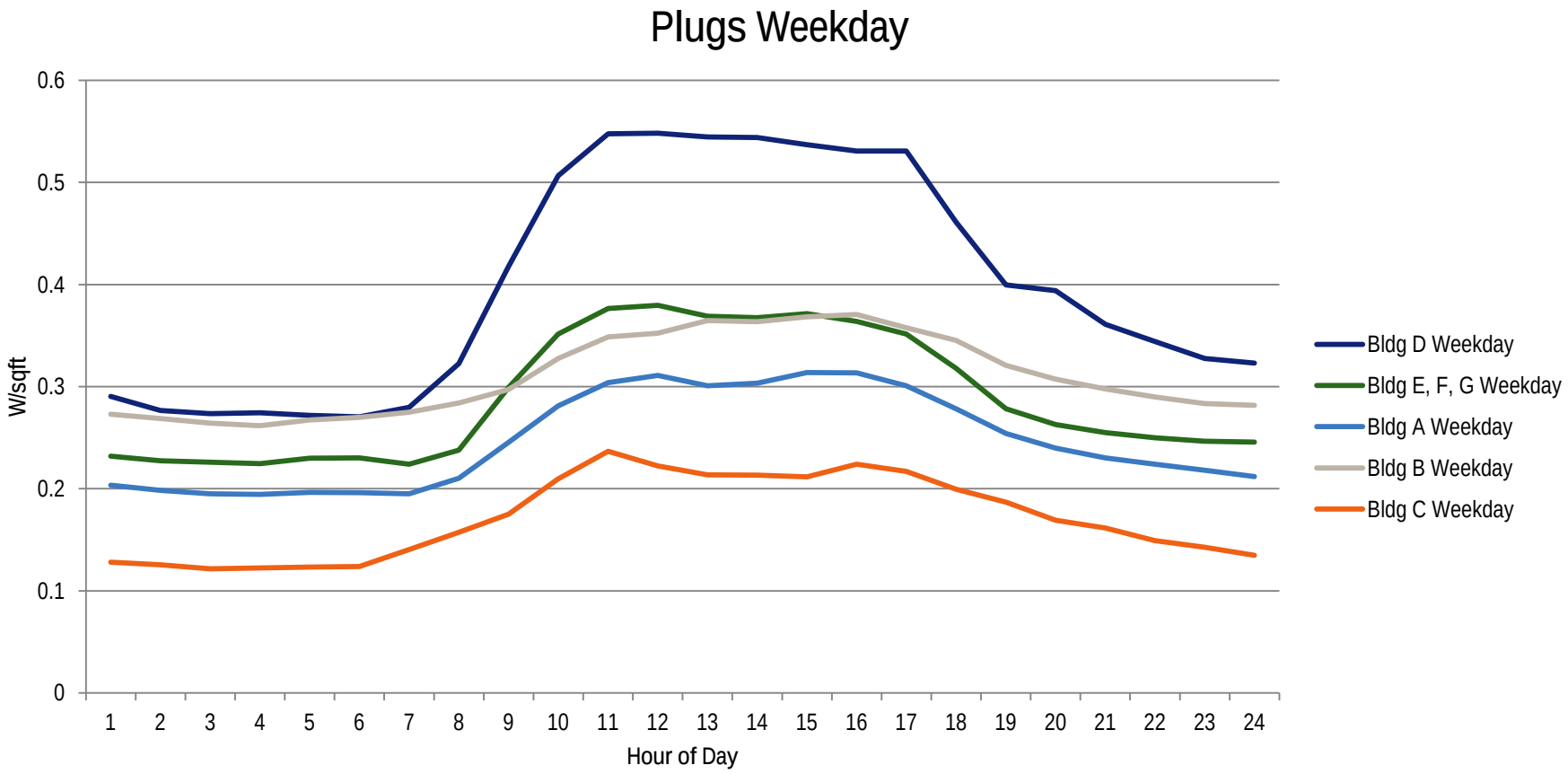
- Problem Background: Commercial building occupants and real estate brokers need better information about realistic plug and process load capacities when they set infrastructure needs.

- Solution: Collect data on PPL power densities (W/SF) during building operation. Develop and publish findings in two forms: a technical report and simple brochure.

Progress

- Scoping study completed
- Commitments from additional collaborators
- Discussing selection of one to two additional buildings
- Discussing metering plans for non-metered buildings

Preliminary Results: Seven Higher Education Buildings (Classrooms and Offices)



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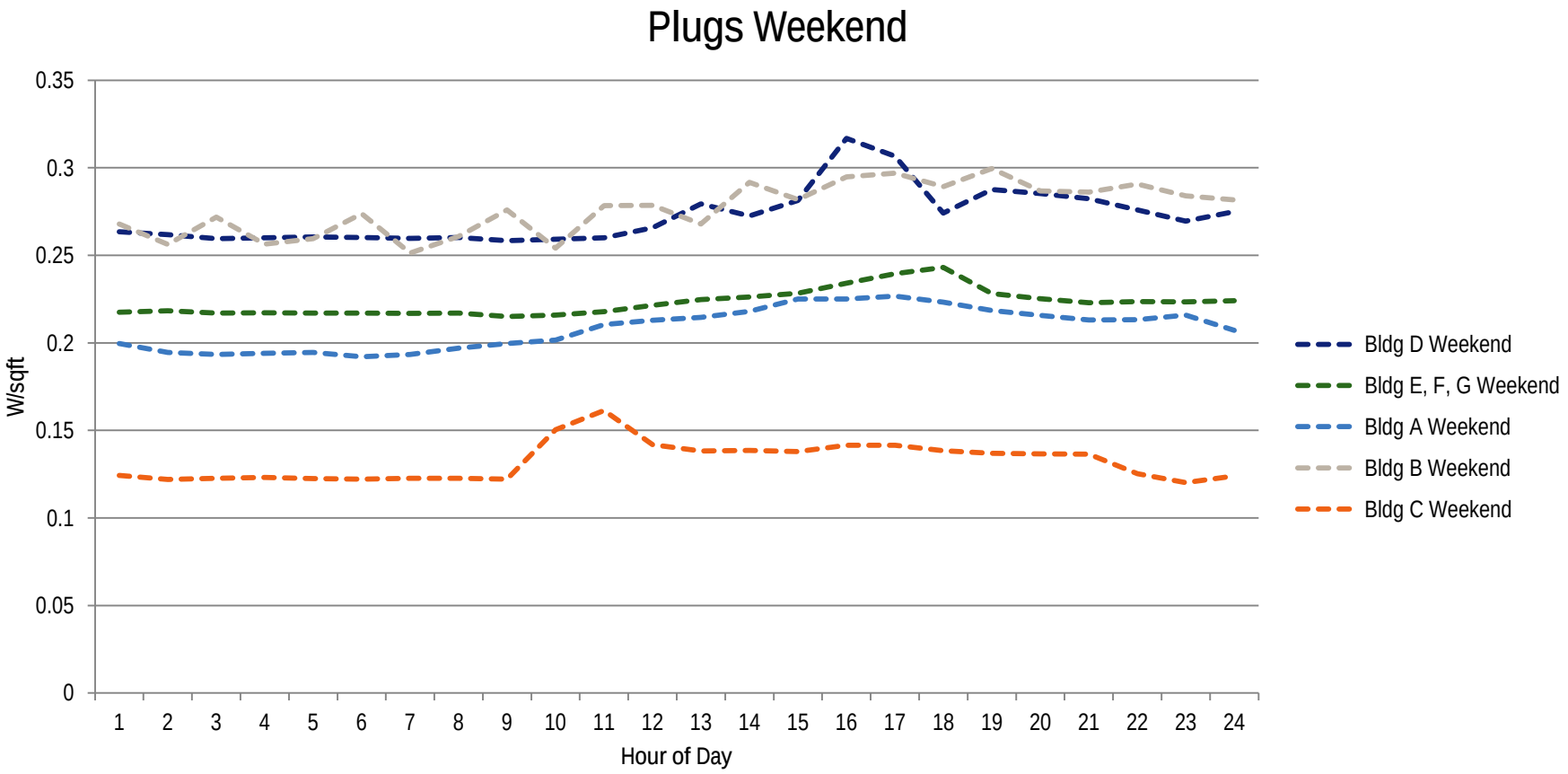

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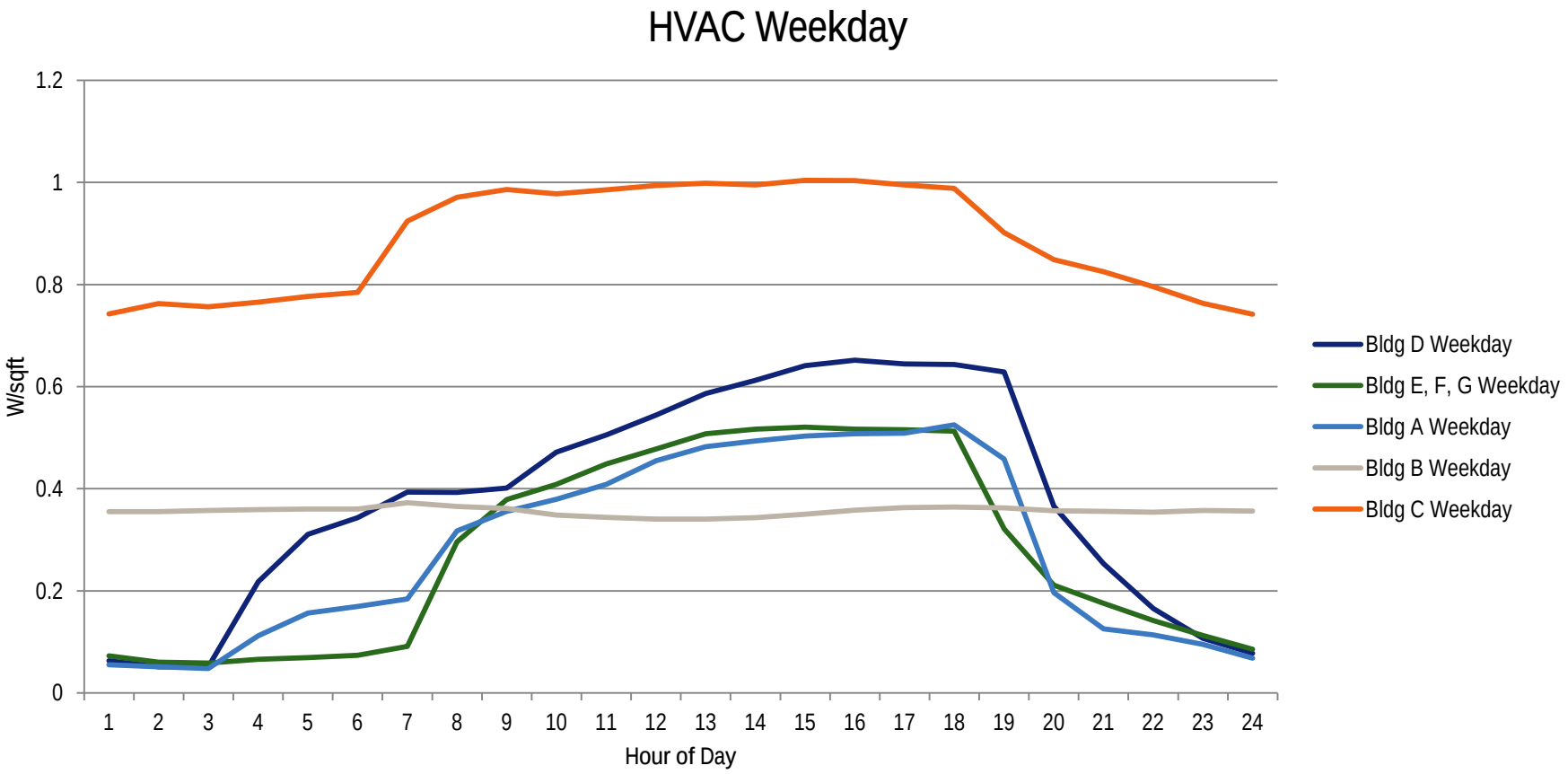

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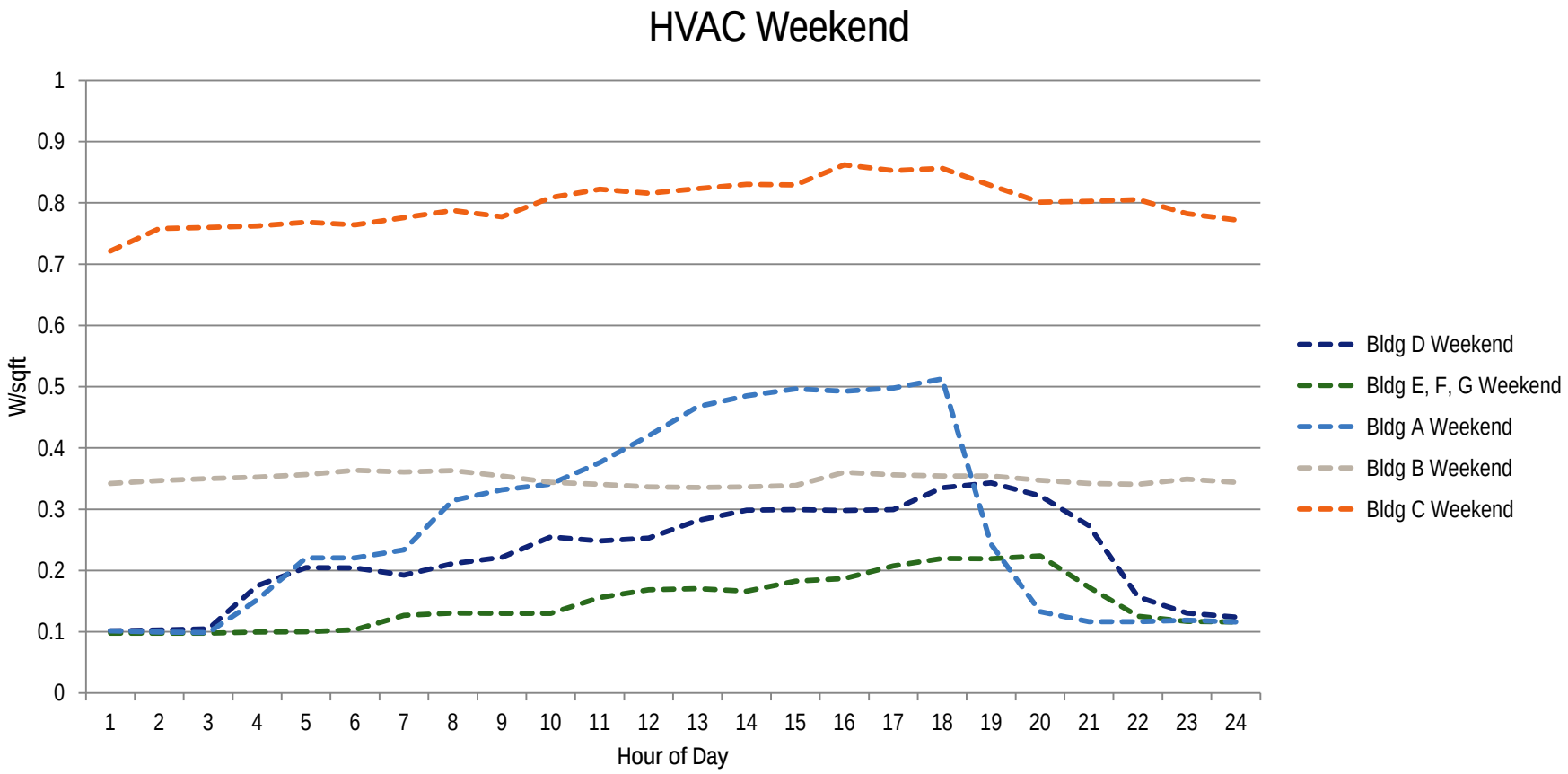

State of the Industry: Plug Load Measurement and Control Technologies

What's out there?

- Advanced power strips that automatically power down equipment.
  - Price Range: $15 to $200 (depending on features)
  - Commercially available
  - Surge protection (on some models)
  - Wireless metering of individual plug loads (on some models)
  - Whole building plug load savings of up to 30% (office space)
  - Whole building energy reduction of roughly 5 to 8% (office space)

What are some barriers to implementing these technologies?

- Leading questions
  - Is the cost too high?
  - Is it difficult to decide which power strip would work best for you?
    - Is a spec needed?
  - Who would install these power strips?
    - Is an RFP needed to have a third party install them?
  - Commercial Real Estate
    - Do tenants have any incentive to install advanced power strips?
  - Healthcare
    - Opportunities in medical office buildings?
  - Retail

Brainstorming Session – All

Discuss high-impact barriers that members and stakeholders are currently facing

- New Ideas:
  - Recap barriers that were brought up during introductions

- Other Ideas:
  - Advanced Power Strip Campaign for Members
  - Advanced Power Strip Spec and Challenge for Manufacturers
  - Plug Load Reduction Strategies for Medical Office Buildings

Brainstorming Session – Commercial Real Estate

- New Ideas:
  - Leading questions
    - Does the type of lease affect how motivated the tenants are to reduce plug loads?
    - Is there a “fast track” to plug load savings program/guidance that we can create for new tenants or tenants that are renewing their leases?
    - Plug load metering
      - Pros?
      - Cons?

Brainstorming Session – Healthcare

- New Ideas:
  - Leading questions
    - A study is underway that will "densely" meter plug loads in a medical office building.
      - Would it be helpful to create a brochure that highlights the worst "energy hogs" in medical office buildings (and strategies to mitigate them)?

Brainstorming Session – Retail

- New Ideas:
  - Leading questions
    - This year, beverage refrigerators in two big-box stores were powered off at key times for energy savings.
      - Schedule-based advanced power strips were used ($10 to $20 per unit)
      - Energy savings of roughly 20 to 25% per refrigerator.
      - Would it be helpful to create a brochure that highlights how to implement this efficiency strategy in stores?
      - Would it be helpful to create an RFP that would enable a third party to implement this efficiency strategy in stores?
    - Are there other "problem" plug loads in stores that are difficult to address?

Questions?

Thank you!

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