



BUILDING PERFORMANCE IMPROVEMENT BOARD MEETING NOTES

February 15, 11 am to 1 pm

In attendance:

Name	In-Person	Virtual	Role
Emily Curley	X		DEP staff liaison
Stan Edwards	X		DEP staff support
Cuiyin Wu		X	DEP staff support
Rhett Tatum	X		Member
Daniel Cleverdon	X		Member
Amanda MacVey			Member
Andrew Rivas	X		Member
Lawrence Carroll	X		Member
Sheena Oliver	X		Member
Jill Goodrich		X	Member
Luke Lanciano	X		Member
Adam Landsman			Member
Mike Dieterich	X		Member
Julie Wolfington		X	Member
Josh McClelland			Member, Deputy Chair
Edward Musz	X		Member
Kevin Walton	X		Member, Chair
Gregory Goldstein		X	Member
Lindsey Shaw	X		Ex officio member (DEP)
Bryan Bomer		X	Ex officio member (DPS)
Dan McHugh	(has retired as of 11/30)		Ex officio member (DHCA)
Michael Yambrach		X	Ex officio member (DGS)
Henry Jordan		X	Member of the public
Scott Dicke		X	Member of the public

Administrative items

Quorum present; meeting notes from 2/1 meeting approved.

Recap any actions from previous meeting

Members were asked to consider building performance improvement plan (BPIP) criteria details for “economic infeasibility” and “other items outside the building owner’s control” as noted in the [BEPS law](#).

Building Performance Improvement Plans

- **Background**

DEP presented background information on the parameters for building performance improvement plans as stipulated in the BEPS law and reviewed how other jurisdictions with site EUI targets have outlined similar plans in regulation and technical guidance.

Members discussed the difference between a BPIP that allows for a different goal vs one that keeps the goal the same but on a different timeline. Per the law, a BPIP must include “a plan and timeline for achieving energy improvements to the building’s performance that will provide cost-effective energy savings based on guidelines established by regulation, including the estimated savings to be realized by implementing all of the cost-effective measures identified in the plan” and “After the Director receives the certified copy of the recorded plan, the covered building will be deemed to be in compliance with the applicable interim or final performance standards as long as the owner fulfills the terms of the building performance improvement plan within the timeline specified in the plan.”

Once a BPIP is approved, the owner must record the building performance improvement plan as a covenant in the County land records. One member expressed that understanding building performance, progress to the BEPS target, and any BPIP requirements is key for owners that may be looking to purchase a property. A provision in the [law](#) requires a seller to disclose that the building is subject to BEPS, transfer benchmarking data, and provide performance baseline, targets, and BPIPs, if applicable. One member reported having better luck getting access to Portfolio Manager records for newly purchased buildings.

In discussion, it was clarified that pursuing a BPIP and implementing agreed-upon actions does not absolve an owner of benchmarking annually. One member noted that benchmarking in combination with details about efficiency measures being installed could lead to a wealth of data about, implemented measures and resulting performance. This could be good for the owner and the market to demonstrate measures that are helpful to improving performance.

One member noted that acting early is critical to improving performance or filing a successful BPIP. In Washington, DC for example, owners must pick a compliance path by April 1, 2023 that they will pursue during the first compliance cycle. This deadline prompts the building community to get familiar with the requirements and consider their approach well before the interim deadline.

- **Qualifying Scenarios**

DEP presented qualifying scenarios from other jurisdictions that would allow a building to pursue a BPIP. These can include “circumstances outside the owner’s control” or situations of “economic infeasibility.”

- **Circumstances outside the owner’s control**

Members first discussed “circumstances outside the owner’s control” and considered some scenarios that might necessitate a BPIP. Members generally agreed with the qualifying scenarios adopted in other jurisdictions and discussed some others, including:

- Planning for end of equipment system life. Members generally agreed that utilizing a standard service life of equipment would aid in documenting this scenario.
- Planning for major renovation. One member noted that specific information should be included about the plan, such as timing and other details to confirm that it is actually scheduled.
- Planned redevelopment such as a change in land use and genuine, documented intention to redevelop on a set schedule
- Designated historic building
- Electrification of space and water heating equipment of the entire building
- Benchmarking exemption (1-year) for the performance period of an interim or final target
- Steam loop district system limitations. One member noted this might not be relevant.
- Innovative approach to energy efficiency for buildings pursuing innovative energy efficiency measures or strategies that have not been widely implemented by the local building industry. One member mentioned geothermal or moving from master metered/central systems to individually metered/unitized systems as potential qualifying scenarios in this category.
- Change of building ownership where the new building owner will have difficulty in complying on time (for example, where the previous building owner did not make progress towards an interim or final standard).
- Financing cycles, especially for under-resourced buildings. One member noted that affordable housing typically does not have control in timing of when projects can be carried out.
- Natural or man-made disasters. One member mentioned flooding as a potential natural disaster in our area.
- Pending demolition. One member noted that there should be a set time from in which demolition would be a qualifying scenario, such as within the BEPS performance period or within 3 years of the interim or final standard.
- Under-resourced buildings may qualify for additional reasons not listed, that would be considered on a case-by-case basis
- Other reasons that will be considered on a case-by-case basis, in conjunction with the Building Performance Improvement Board.

One member mentioned that sometimes an owner wants to make changes but cannot obtain the needed capital to do so.

The jurisdictions highlighted all require an ASHRAE level 2 audit to demonstrate project economics and feasibility. Members discussed the scope of a typical audit and had some suggestions about potential ways to enhance the audit requirements for use of a BPIP. Some members noted that there can be different types of a Level 2 audit.

For example, members discussed the potential for including more innovative envelope upgrades such as low-e window coating or insulated metal panels with exterior shading that could be pursued as a whole-building energy improvement that doesn’t rely on access to tenant spaces. One member thought that pursuing an envelope project should itself be grounds for a BPIP given the cost and complexity involved.

Another member noted that an envelope project can yield cost-effective savings and can have system benefits to reduce heating and cooling capacity if pursued in tandem with HVAC upgrades.

One member also noted that since an energy audit is done from the auditor's perspective, costs and implementation viability can change once vendors provide actual pricing or when a MEP engineer goes to scope the work. One member noted that a life-cycle cost analysis may be better geared to demonstrating lifecycle project costs and viability. Members also noted that audits themselves can be expensive.

Finally, one member noted that an energy audit is a somewhat different product for BEPS. Typical audits may focus on only the most cost effective or highest pay-back bundle whereas an audit for a BPIP is more likely to include a host of measures that may not otherwise be considered to show the technical potential to reach the site EUI target. This could be a learning curve for auditors. One member noted that the Building Innovation Hub provides sample scopes of work that owners can use to procure services.

In addition to an audit, some jurisdictions require an Energy Management Plan (EMP) and Operations and Maintenance program (O&M). Members noted that O&M can yield substantial savings. It is common for settings to be overridden, equipment to run without a schedule, and many other issues that can typically be corrected at low- or no-cost.

St. Louis allows for a retro-commissioning (RCx) plan and implementation in lieu of an energy audit. Retro-commissioning is the process of fine-tuning building systems to ensure a building is running at its optimal performance. Members noted that engineers typically look at equipment, points in the building automation system, sensors, schedules setpoints, etc. and look to optimize all of them at least back to the design parameters. One member noted that this is one of the best things that building owners can do as a lot of savings can be gained via changes to these setpoints and parameters. Another member noted that in their experience, RCx saved an average of 17% within a building portfolio they worked on, though for individual buildings it ranged from 5-30%. Another member recalled a study indicating that savings would be on the order of 10-20%. One member cited monitoring-based commissioning (MBCx) as the best type of commissioning since the building is continuously being monitored and issues can be corrected as they arise, rather just on the periodic recommissioning schedule.

- **Economic infeasibility**

Members next discussed economic infeasibility. Economic infeasibility could occur because a building study shows that site EUI target is not technically feasible, when improvement measures to meet the target have high cost and low benefits, or when the owner lacks the needed capital to make improvements.

Examples of economic infeasibility being defined in other jurisdictions is somewhat limited. Members generally agreed that adopting a more objective metric – be that discount rate, savings to investment ratio, return on investment, etc with clear instructions on how to calculate and what to include in costs and savings – would be preferable to more subjective criteria. Several members noted, however, that the numbers used to determine these ratios can be adjusted to meet specific criteria based on the building owner's goals.

Though buildings keep funds in reserves or operating budgets, members discussed that larger projects typically require financing to complete. Buildings need to continue to stay profitable and banks typically look at the financial benefit of the project in evaluating the financing.

One member noted that several other variables should be considered in determining “economic infeasibility,” including:

- The time-value of money: dollars invested in year 1 are going to be worth more than the dollars from savings realized in years 2, 5 or 10.
 - Impact on the cash flow and terminal value using a standard, 10-year discounted cash flow analysis, the capital costs, savings from reduced energy usage and incentives. To the extent that the capital investment associated with energy efficiency improvements doesn’t pay for itself once the return requirements accounted for (the internal rate of return/discount rate) then the investor will have to pay less for the building. The same principles will apply to a building that is not being purchased—a real estate investment is still going to require a real estate return.
 - Recognize that larger improvements are likely to be financed and that the infeasibility analysis should account for the cost of that debt.
 - Inflation will erode the value of the future savings dollars.
 - The energy savings may not actually translate into reduced expenses or increased rents for the owner. In an owner-occupied building or building where the owner directly pays all the utility costs then the savings calculation is more direct. In a triple net lease, an owner should theoretically be able to charge more rents when utility costs are lower, but this is not a guarantee. A full-service lease is going to lie somewhere in the middle.
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- **Next meeting**

The BPIB plans to revisit the qualifying scenarios and look at the documentation needs for each scenario and continue the discussion on economic infeasibility. Two other BPIB considerations, Improvement Measures & Cost-Effectiveness and Verifying Implementation were tabled for a future meeting.

For additional information, please visit the Building Energy Performance Standards website at <https://www.montgomerycountymd.gov/green/energy/beps.html> or contact DEP at energy@montgomerycountymd.gov.