



BERDO Action Assessments Focus Group Notes 08.14.18

Objectives:

- Per the BERDO regulations, buildings are required to demonstrate high performance, complete an energy audit or an energy action every five years. The first set of BERDO reporting buildings, non-residential properties above 50,000 sf will be required to complete an action in 2018.
- The City is seeking feedback on its draft energy action and assessment guidance and the process. Feedback will help the City as it revises its guidance and determines next steps.

Participants:

Representatives from Arup, Beth Israel Deaconess Medical Center, Boston Medical Center, Boston Properties, Dana Farber, Federal Reserve Bank of Boston, Friends of Post Office Square, KPMG, Partners Health, Tishman Speyer, Turner Construction as well as A Better City and the City of Boston.

Notes from Meeting:

Welcome and Introductions

- A Better City's analysis shows that Sustainable Buildings Initiative (SBI) group members are performing better than other BERDO reporters.
 - On average they have lower EUIs, lower GHG intensity and higher energy scores.
 - For 2015-2016, SBI buildings:
 - Decreased Energy Use Intensity (EUI) by 3.8%
 - Raised Energy Score by 1.2%
 - Reduced greenhouse gas (GHG) emissions by 10.6%
 - Reduced Water Use Intensity from 330 gallons/sf to 300 gallons/sf
 - SBI buildings also have a higher percentage of electric energy generation which may make long-term reductions easier.
 - A 2016-2017 analysis will be conducted once the 2017 BERDO data is released iOctober 2018.

Introduction of BERDO and Action Requirements, City of Boston

- BERDO has two main parts: (1) reporting, and (2) action assessment, during which buildings are required to show a certain amount of improvement or do an energy audit.
- BERDO is on a five-year cycle. For example, buildings that first reported in 2014 with 2013 data will be required to complete an Energy Action or Assessment and submit it to the City by May of 2019. The baseline year for these buildings will be 2014 data submitted by May of 2015—their first year of BERDO data.
 - The way the ordinance is written states that even in the event of a change in ownership of a building, the reporting year for the building sets the clock for the year in which an energy action and assessment is due.
 - There will be 750 buildings required to report in the first cohort.



Reporting Schedule

Data from year	2013	2014	2015	2016	2017	2018	2019	2020	2021
Submitted in May of	2014	2015	2016	2017	2018	2019	2020	2021	2022
Non-residential 50k sf+	First reporting	Baseline				<i>EEA Due</i>	2 nd Cycle		
Residential 50k sf+		First Reporting	Baseline				<i>EEA Due</i>	2 nd Cycle	
Non-residential 35k sf+			First Reporting	Baseline				<i>EEA Due</i>	2 nd Cycle
Residential 35k sf+				First Reporting	Baseline				<i>EEA Due</i>

- There are three main compliance pathways:
 - Highly Efficient Buildings
 - Energy Action – The city is looking for a 15% improvement in EUI or GHG emission through any combination of strategies for compliance.
 - Energy Assessment
- Submission will be via a webform on the City’s website; third party verification is being requested as part of the submission process given the range of data anticipated.
- In the event of non-compliance, the City intends to actively work with building owners until they achieve compliance.
 - However, the City does have authority under Article 21G to issue a \$200 fine every day until it reaches a capped amount [The City could not recall the full amount of the fine upon query, but noted that this was part of the previous regulatory process].
 - To date, no BERDO fines have been issued. The City prefers to work with building owners to achieve BERDO’s intent. The City anticipates there are pathways that are easier for compliance than paying the fee.
 - In the event a fine being issued the City anticipates it would be allocated to Boston’s Air Pollution Abatement fund.
 - Six-month extensions are available for buildings that need additional time.

Discussion: Awareness of Upcoming Requirements

- Most participants were aware that there were changes in their BERDO requirements for 2018 but were unsure of the details of those changes or what they would be required to do.
- Most participants agreed that other building owners would likely have similar reactions to those in the room if queried.
 - They noted that the requirement will likely come as a surprise for both the commercial real estate community and hospital communities.



- They noted that building owners tend only to think of BERDO when it is time to submit data and may be unaware of the upcoming change.
 - Reminders would have been helpful and would be helpful for future cohorts of buildings.

Discussion: Guidance Documents – General Feedback

- Participants expressed concern that while there was significant stakeholder engagement conducted on the benchmarking portion of the ordinance, there was more limited focus on the energy action assessments and the compliance/fine structure.
- Participants expressed a desire to see the guidance and the regulations evolve, suggesting that some components may come as a surprise to those less engaged.
- Participants discussed buildings where tenants control a significant proportion of the energy use, rather than owners, as this is particularly challenging in implementing energy reductions. They questioned whether owners should be responsible for non-compliance in those instances.
- Participants expressed that BERDO should be considered one tool in the City's overall climate goals, noting that it is mostly a reporting and disclosure requirement.
 - The City noted that on the reporting metric, it's been very successful, with nearly 90% compliance.
- Participants suggested that the utilities should utilize BERDO as a screening tool for who to reach out to and support.

Discussion: Guidance Documents — Highly Efficient Buildings

- There was general agreement that most of the rating systems that buildings actively use were included in the guidance, however participants pointed out that labs and hospitals cannot be rated under ENERGY STAR and may therefore have to rely on LEED.
 - One participant noted they use an ISO standard, which is more focused on continued performance, but this practice was not common in the U.S.
- Participants noted that LEED does not necessarily indicate an efficient building – it is a snapshot in time.
 - Some suggested that Boston could do away with that pathway and noted that other proprietary standards may demand to be included if LEED is included (e.g. the Green Parks standard).
 - Others countered that LEED credits and checklists can be important tools when major capital investments are being made and having it as a compliance pathway could help motivate building team members to push for higher energy scores.
- Commercial Real Estate participants noted that 15 Energy and Atmosphere points will vary significantly across which LEED rating system the City is using. The City clarified that as written, the ordinance would accept any LEED rating system.
 - Currently the United States Green Building Council is on LEED v4, which is a much higher-level of performance than buildings which may be certified under older LEED New Construction credit systems.
 - Currently, compliance is tied to LEED New Construction, which is design focused as opposed to an indicator of energy performance.
 - Participants shared a few examples of buildings that were LEED NC certified, but have poor energy performance.



- Participants suggested that Boston specify the LEED rating system – preferably LEED EBOM, ensuring they select one that ties most directly to their energy savings goals.
- Participants expressed concern that a building that has made progress and achieves ENERGY STAR in the final year of a compliance cycle would not be able to utilize that as a compliance pathway; they suggested the City consider making this a potential avenue.
 - The City noted that a change to permit ENERGY STAR certification in the final year would need to be taken to the oversight committee for the ordinance.
 - When it was suggested the building could demonstrate reductions with EUI instead, participants noted that the relationship between ENERGY STAR and EUI is complicated, explaining that ENERGY STAR helps normalize for changes in occupancy and use, while EUI does not.
 - Participants raised that later this month, ENERGY STAR scores are being recalibrated, which may have significant impacts on building credentials. Participants expressed concern that the changes to ENERGY STAR in the Fall will make it difficult for facilities to achieve a 15point ENERGY STAR improvement.
 - One participant noted that some of their office properties scores are expected to drop 14 points.
 - The City noted that they are dealing with this by asking buildings to send information in early.

Discussion: Guidance Documents – Energy Action

- Participants expressed concern for buildings that had conducted major energy efficiency work prior to BERDO and, therefore, may have significant difficulty reaching the 15% decrease from their individual baseline year.
 - They suggested that the City could create benchmarking for buildings of a similar type (e.g. hospitals, offices) from BERDO data and scale requirements based on a building’s performance relative to that benchmark.
 - Representatives from the City also noted that some of the datasets within sectors are small enough that having a meaningful sample size on which to develop a baseline could be a concern.
 - The City did note that within the original ordinance, they were granted the authority to set EUI thresholds for building types not covered by ENERGY STAR, but they have not done this to date.
 - Participants also suggested allowing buildings to utilize a baseline year prior to BERDO reporting.
 - Representatives from the City asked for feedback on an appropriate allowable amount of time before BERDO and how to access credible data to verify previous actions.
 - Participants suggested some buildings may have Portfolio Manager data prior to BERDO.
 - One participant noted that they have Portfolio Manager from 2010, 3 years prior to BERDO data.
- A participant noted that EUI, while challenging given that it doesn’t account for changes in use or occupancy over time, is the best measure of meaningful progress towards the ultimate goal of carbon-neutrality and is the most material to business operations.
 - The City noted that renewable energy credits were also meaningful in terms of carbon neutrality.



- A participant inquired if power purchase agreements were a permissible way to achieve the 15% GHG reduction requirement. They noted that purchasing RECs would be more cost-effective than the other pathways. Other participants pushed back against this, saying that even if this is a pathway, it would not change their business model of operating facilities as efficiently as possible.
 - Representatives from the City clarified that virtual Power Purchase Agreements (PPA) are permissible.
 - Participants noted that the PPA market is changing and that ultimately green power will be more cost-effective and twenty-year agreements will not be necessary. The City will then be dealing with a scenario where renewable purchasing is more cost-effective than pursuing additional efficiency in future 5-year cycles. The City should think carefully about this tradeoff.
 - A participant noted that ultimately, carbon neutrality will likely require all buildings to do as much energy efficiency as possible, and those that cannot reach zero emissions will have to offset with renewable energy.
 - A participant expressed concern that their electricity is currently carbon neutral, but that when their hedge expires, they may not be able to find one that is as favorable and would not want to be penalized for going from zero emissions to slightly positive emissions.
 - Participants suggested that the City needs to define what is acceptable in terms of PPAs, perhaps with a focus on additionality.

Discussion: Guidance Documents – Energy Assessment

- Participants said flexibility on the type of energy audit that can be submitted is important, noting that ASHRAE Level 2 Audits are expensive.
 - One participant suggested that MassSave technical assessments may fit the need of some building owners better, and can also provide meaningful information
- A Better City offered to help aggregate audit services in a one-stop-shop, potentially driving down costs and making it easier for owners to comply.
- Representatives from the City noted that they are open to alternatives that are actionable—meaning they will produce a result that the building owner can utilize to reduce energy in their buildings.
- Participants noted that the role of virtual audits is evolving, but at present is highly dependent on the quality of data submitted and is not nearly investment-grade.
- Participants suggested that audits can be useful, particularly as they provide an inventory of equipment and an opportunity for retro-commissioning, in addition to providing recommendations for energy conservation measures.

Wrap Up and Next Steps

- The City is engaging stakeholders to ensure the guidance for the BERDO regulations are comprehensive and easily understood. They will begin advertising for the first round of compliance due May 2019, in the Fall. Stakeholder engagement will be ongoing during that time and will help inform changes in the future, particularly for the second cycle of compliance.
 - The City of Boston is committed to coming back to A Better City in the Fall during their ongoing stakeholder engagement process.
- A Carbon Free Boston update expected this fall will provide significantly more detail on the City's vision for meeting carbon neutrality, including for new construction, existing buildings, retrofits, virtual PPAs, and alignment with utilities.



- Should participants have additional suggestions, please contact Ben Silverman (benjamin.silverman@boston.gov).
- Should participants have additional suggestions for how A Better City can support these efforts, please contact Yve Torrie (ytorrie@abettercity.org).