



January 18, 2023

Air Pollution Control Commission
Boston City Hall
Environment Department, Room 709
1 City Hall Square
Boston, MA 02201

RE: A Better City's Comments on BERDO 2.0 Phase 2B Regulations

Dear Chair Gerratt, Commissioner Brizius, and members of the Commission:

We appreciate your ongoing willingness to engage with the business community throughout the development of the BERDO 2.0 Regulations, including the Phase 2B draft regulations that incorporated A Better City's Phase 2 recommendations.

Based on the changes made to Phase 2B draft regulations, A Better City's remaining comments are focused on district energy emissions factors, an update to projected grid emission factors, clarification in the definition of Virtual Power Purchase Agreements, and a request for additional information on hourly emissions within Time of Use electricity emissions.

A Better City's Recommendations for Draft BERDO 2.0 Phase 2B Regulations

District Energy Emissions Factors

Following an in-depth discussion with the City of Boston's BERDO team about district energy emissions factors, the following comments reflect points not adequately covered in the regulatory language:

- **Considerations for Kendall Square's unique electricity merchant generator status:**
 - *Inadequacy of the proposed WRI Efficiency Method's use with an electricity merchant generator:*
As stated in previous BERDO 2.0 regulatory comments, we do not think a one size shoe fits all for district energy emissions factors. We agree that the efficiency methodology works for many, if not most, district energy systems. However, the Kendall Square district energy system is more complex, as it is the only district energy system in the Boston region that supplies customers in Boston with steam, and whose primary function is to operate as a merchant generator for ISO-NE. As such, the plant is required to allocate all its emissions to its electric generation through EPA's Part 75 ruling. In turn, the Kendall Plant must comply with state and regional requirements through the Regional Greenhouse Gas Initiative (RGGI) cap and trade system and the Renewable Energy Portfolio (RPS Standard), which is increasing incrementally at 2 percent per year. The steam that results from the Kendall system is a by-product of electricity generation, and as such, its current emissions accounting of zero is correct and should be reflected in the BERDO 2.0 regulatory language. Allocating carbon emissions utilizing the efficiency method for the Kendall Plant for BERDO 2.0 compliance would therefore not be consistent with current federal and regional requirements, CO2 accounting, and emissions reduction compliance. We request the City of Boston check if the WRI efficiency methodology has been applied to a merchant generator previously within a building performance standard context, and if so, what allowances were made to account for this unique system. Also, if this approach has been used, we suggest checking the results of this approach.
 - *The Kendall Square merchant generator plant isn't going away anytime soon.* You may be aware that on Christmas Eve, the ISO-NE declared an OP4 event, which is called when electricity supply

and demand gets very tight and puts the grid at risk of brownouts. With the setbacks in offshore renewable energy generation and increased demand on the electricity grid, the reliance on natural gas-powered electricity generators will continue. They are essential to the resilience of the ISO NE grid. The steam by-product from this electricity generation will, therefore, also continue to be offered for some time to come. The efficiency of this system, utilizing a steam by-product of electricity generation, should be encouraged, not discouraged, while it is required for electricity resilience within the ISO-NE grid.

- *The Kendall Square merchant generator's efficiency should be compared to other upstream generators:* Upstream electricity merchant generators on the ISO-NE grid operate at approximately 40% efficiency and lose an additional approximately 5-7% to transmission and distribution, resulting in close to a 35% efficiency delivered to the meter. On the other hand, the Kendall Square plant is operating at approximately 65% efficiency. All merchant generators contribute to the ISO-NE grid; more efficient ones should be encouraged, not discouraged as an interim step in our decarbonization journey.

Recommendation: A Better City recommends exempting the emissions from steam sourced from the Kendall Square steam plant from the WRI efficiency methodology, leaving them as zero emissions, which is consistent with current federal and regional requirements, CO2 accounting, and emissions reduction compliance. At the same time, we recommend the City of Boston check if the WRI efficiency methodology has been applied to a merchant generator previously within a building performance standard context, and if so, what allowances were made to account for this unique system, and what the results of this approach have been. A Better City also recommends the City compare the Kendall Square merchant generator's efficiency to other upstream merchant generators' efficiency and take their essential role in resilience and reliability of the ISO-NE grid into consideration in determining their unique emissions factor.

- **District Systems Operate and Report Differently:** As mentioned above, the Kendall Square district system is unique. Steam from this system is used in the Longfellow Bridge Loop, while the excess is added to the steam produced at Kneeland and Scotia in the Boston system. As the Kendall Square steam by-product is included in this loop, individual carbon calculations are needed accordingly.

Recommendation: A Better City recommends Vicinity steam customers be allowed individual carbon calculations according to the Vicinity steam loop they are on and the steam generation that is feeding into that loop.

- **Hard-to-decarbonize sectors could bear the brunt of the use of WRI's Efficiency Methodology:** There are currently hard-to-decarbonize sectors such as life sciences, and healthcare, many of whom rely on steam for thermal use. A Better City is concerned that with the efficiency method proposed in draft Phase 2B regulations, these hard-to-decarbonize sectors may bear the brunt of escalating costs to comply, without equivalent significant emissions reductions being realized.

Recommendation: A Better City recommends consideration be given to hard-to-decarbonize buildings that are currently less able to move away from steam for thermal use, who will bear the financial burden of the efficiency method without realizing the emissions reductions.

Projected Grid Emissions Factors

The projected grid emission factors provided in Appendix A of the draft Policies and Procedures reference a report prepared by [Synapse in February 2021](#). The Synapse report references the annual ISO New England



(ISO-NE) Electric Generator Air Emissions Reports available at the time. We recommend updating Appendix A to reference the most recent data available through ISO-NE air emissions report platform, published on 5/22/2022. It is our understanding that this data includes imports to our grid and the 2019 emission factor listed, which includes imports, is 15% better than the one listed in Appendix A. Updating the factors in Appendix A to reflect the most recent available data will help owners better plan for BERDO 2.0 compliance.

Recommendation: A Better City recommends updating Appendix A to reflect the most recent data for projected grid emission factors published on 5/22/2022.

Power Purchase Agreement Definition

In the draft Phase 2B regulations under Section X, Additional Compliance Mechanisms, we suggest a change be made to further clarify c) Power Purchase Agreements (i) to read, “Owners that procure Electricity and bundled Renewable Energy Certificates ~~purchased~~ through Power Purchase Agreements ~~or procure Renewable Energy Certificates through Virtual Power Purchase Agreements where electricity is liquidated to the market including virtual Power Purchase Agreements,~~ for compliance with the Ordinance shall provide documentation demonstrating compliance with the requirements in Section 7-2.2(m)(c) and the following additional requirements.

Recommendation: A Better City recommends updating the definition under Power Purchase Agreements to reflect the changes made in the red text above.

Time of Use Electricity Emissions

A Better City is requesting additional information on hourly emissions in the Time of Use section in the draft Policies and Procedures in Section 5.

Recommendation: A Better City recommends additional information be provided on hourly emissions in the Time of Use section of the draft Policies and Procedures.

Thank you for the opportunity to provide comments on the BERDO 2.0 Phase 2B draft regulations. If you have any questions or would like to discuss A Better City’s comments further, then please do not hesitate to contact us.

Sincerely,

Y. L. Torrie

Yve Torrie

Director of Climate, Energy & Resilience

Cc Hannah Payne, Director of Carbon Neutrality, City of Boston