



## Comment on Eversource's proposed transmission lines and East Boston substation

Senior Researcher Bryndis Woods, PhD, Applied Economics Clinic on behalf of GreenRoots, Inc.

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Docket Nos. EFSB 14-04A/D.P.U. 14-153A/14-154A

### Introduction

In 2014, Eversource requested approval of the Massachusetts Energy Facilities Siting Board (EFSB) and Department of Public Utilities (DPU) to: 1) construct a new substation (the "East Eagle Street Substation") on Eversource property in East Boston; and 2) construct and operate two new underground electric transmission lines in Everett, Chelsea, and East Boston. In December 2017, EFSB issued their Final Decision that approved the need for the substation and directed Eversource to work with the City of Boston to relocate the proposed substation (within the same neighborhood).<sup>1</sup> As part of that siting process, on February 28, 2020, EFSB issued a Tentative Decision that recommends approval of the proposed new location for the substation in East Boston and the two underground transmission lines in Everett, Chelsea, and East Boston.

The remainder of my comments address the following issues:

- **Out-of-date data** that was used to assert a need for the project;
- **Questionable reliability claims** that have not come to pass and have shifted over time; and
- **COVID-19 pandemic impacts**, which have been particularly devastating in Chelsea and East Boston.

As a result of these concerns, I recommend that EFSB vote to reject the Tentative Decision issued by the Siting Board given that Eversource has failed to provide sufficient information to allow third-party review of its needs and reliability assessment of the proposed East Eagle Street Substation. Until this critical information is made available, this project should not move forward. If EFSB votes to approve the substation, its approval should be made contingent on: Eversource's provision of up-to-date historical load data, data forecasts, and information on the expected load addition of the Massport project. Particular care needs to be taken with EFSB's decision in this matter, as the communities that would be disrupted by Eversource's project are some of the hardest-hit by the COVID-19 pandemic in the Commonwealth.

### Out-of-date data

Eversource claims<sup>2</sup> that the existing Chelsea substation is insufficient to maintain reliable electric service in

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<sup>1</sup> Commonwealth of Massachusetts Energy Facilities Siting Board. December 1, 2017. Final Decision. EFSB 14-04, D.P.U. 14-153 and D.P.U. 14-154. Page 165.

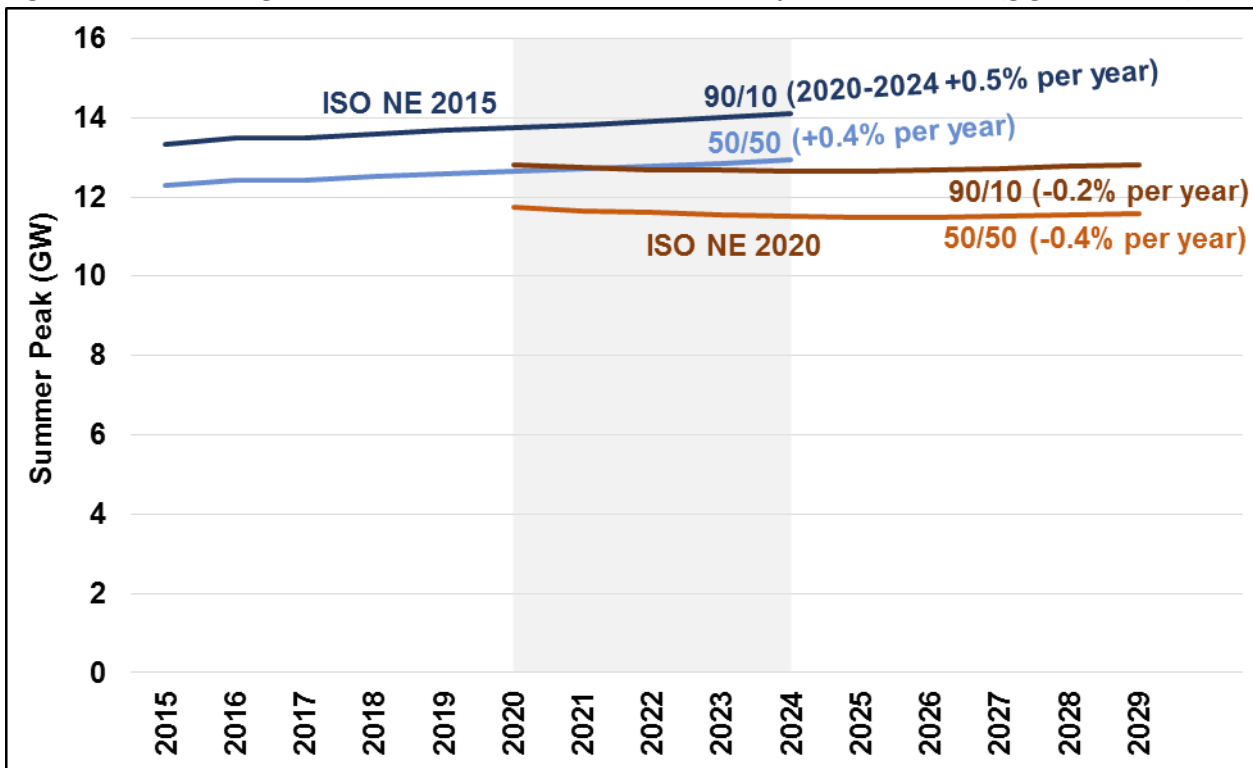
<sup>2</sup> Ibid.



the Chelsea/East Boston/Lynn load pocket, in part, because the Company expects peak demand to grow in that area: a claim that relies on data that are now five years old. Eversource’s claim that electric load will increase in the Chelsea/East Boston/Lynn load pocket is based on ISO-New England’s (ISO-NE) CELT 2015 electric load forecast, which projected growing peak electric load in Massachusetts every year over the course of its 10-year forecast period (2015 through the end of 2024).

ISO-NE’s most recent electric load forecast (CELT 2020, which was released in April of this year and does not account for the anticipated short- or long-term impacts of the COVID-19 pandemic), however, shows the opposite: shrinking peak electric loads in Massachusetts through 2024 (and flat load thereafter, see Figure 1). The prospect of declining/flat loads undercuts Eversource’s claim of the need for the substation to ensure electric reliability as loads increase.

**Figure 1. ISO-New England forecasts of Massachusetts summer peak electric load (gigawatts, GW)**



Source: ISO New England. 2015 and 2020 ISO New England Forecast Data File. 2015/2020 CELT Forecast Detail: ISONE Control Area, New England States, RSP Sub-areas, and SMD Load Zones. Available at: <https://www.iso-ne.com/system-planning/system-plans-studies/celt/>.

The last time Eversource provided load data for the Chelsea/East Boston/Lynn load pocket was back in 2017, when it forecasted that load would increase from 303.4 megawatts (MW) in 2018 to 323.0 MW in 2023<sup>3</sup>—an average annual increase of 1 percent (see Table 1 below). Adjusting the average annual increase

<sup>3</sup> Commonwealth of Massachusetts Energy Facilities Siting Board. December 1, 2017. Final Decision. EFSB 14-04, D.P.U. 14-153 and D.P.U. 14-154. p.15.



to be consistent with that of the 2020 CELT load forecast (-0.2 percent) reduces the forecasted 2023 load from 323 MW to 300.1 MW. Eversource claims that the East Eagle Street Substation is needed in order to serve loads of 300 MW or more in extreme conditions (“in the event of a contingency involving the sequential loss of two area transmission lines”<sup>4</sup>). A 23-MW-lower anticipated load in 2023 means that Eversource no longer has reason to expect loads greater than 300 MW or the need for a substation to maintain reliable electric service in the Chelsea/East Boston/Lynn load pocket between now and 2024.

**Table 1. Chelsea/East Boston/Lynn peak load comparing Eversource 2017 assumptions to adjustment using CELT 2020 (MW)**

	2018	2019	2020	2021	2022	2023	Annual % Change
<b>Eversource 2017 Discovery Response</b>	303.4	306.6	309.8	313.0	316.3	323.0	1.0%
<b>Adjustment using 2020 CELT growth rate (2020-2024)</b>	303.4	302.7	302.1	301.4	300.7	300.1	-0.2%

Sources: AEC calculations based on Table 1, page 15 in: Commonwealth of Massachusetts Energy Facilities Siting Board. December 1, 2017. EFSB 14-04, D.P.U. 14-153 and D.P.U. 14-154. and ISO-NE. 2019. Forecast Data File. 2019 CELT Forecast Detail: ISO-NE Control Area, New England States, RSP Sub-areas, and SMD Load Zones.

### Questionable reliability claims

Eversource also bases its claim that the existing Chelsea substation is insufficient to maintain reliable electric service in the Chelsea/East Boston/Lynn load pocket on four specific load additions as anticipated in 2014.<sup>5</sup> Eversource asserted that these load additions would create a reliability issue by 2018.<sup>6</sup> This reliability crisis, however, did not occur. All four load additions have come online without incident.

In response to Information Request GR-ESRN-3 in May 2019, Eversource revised its explanation of claimed reliability issues. Rather than reliability becoming an issue in 2018 (per EFSB’s summary of Eversource’s arguments in its December 2017 Final Decision),<sup>7</sup> Eversource has changed its rationale to claim that reliability will become an issue in 2022 as a result of a new major customer project: the Massport Logan Airport development that Eversource asserts will—“in combination with the previous four major customer projects”<sup>8</sup>—overload Chelsea Substation. As of this writing, there have been no rolling outages in the East

<sup>4</sup> Ibid. p.17.

<sup>5</sup> Commonwealth of Massachusetts Energy Facilities Siting Board. December 1, 2017. Final Decision. EFSB 14-04, D.P.U. 14-153 and D.P.U. 14-154. p.17.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> Zbikowski, R.C. May 21, 2019. Information Request: GR-ESRN-3. EFSB 14-04A/D.P.U. 14-153A/14-154A.



Boston/Chelsea load pocket.<sup>9</sup>

In addition, as a result of the COVID-19 pandemic, the entire world witnessed an unprecedented decline in demand for electricity as a result of efforts to curb the spread of the virus—like lockdowns, working-from-home and nonessential business closures. The International Energy Agency (IEA) predicts that 2020 global electricity demand will be 5 percent lower than 2019—the largest single-year drop since the Great Depression.<sup>10</sup> Back in the spring, ISO-NE noted that it had “observed a 3 to 5% decline in consumer demand attributable to the pandemic.”<sup>11</sup>

Eversource’s use of increasingly out-of-date data and its shifting and questionable reliability concerns call into question whether the East Eagle Street Substation is actually needed, here and now in December 2020. The unprecedented declines in electricity demand resulting from the COVID-19 pandemic cast into stark relief the open question of whether this project is truly needed.

### **COVID-19 pandemic impacts**

Eversource’s plans for new electric transmission infrastructure raises concerns of neighborhood disruption (from the construction and operation of the substation and two underground transmission lines) at a moment in time when the communities in question can least afford it. For residents of Chelsea, East Boston, Lynn and Everett, this disruption takes on special significance for three reasons: First, the project is needed to satisfy increased load from Logan airport—not from the neighborhoods in which the new infrastructure would be located; second, these communities have long voiced their opposition to this project; and third, these communities are reeling from the COVID-19 pandemic. Chelsea, Lynn and Everett have the third, fourth and sixth highest infection rates among cities and towns in the Commonwealth, respectively (see Figure 2 below). As of November 23, 2020, East Boston has the highest infection rate of all 15 neighborhoods of the City—a staggering 14 percent, more than double the infection rate of the citywide average.<sup>12</sup>

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<sup>9</sup> Personal communication with GreenRoots, Inc.

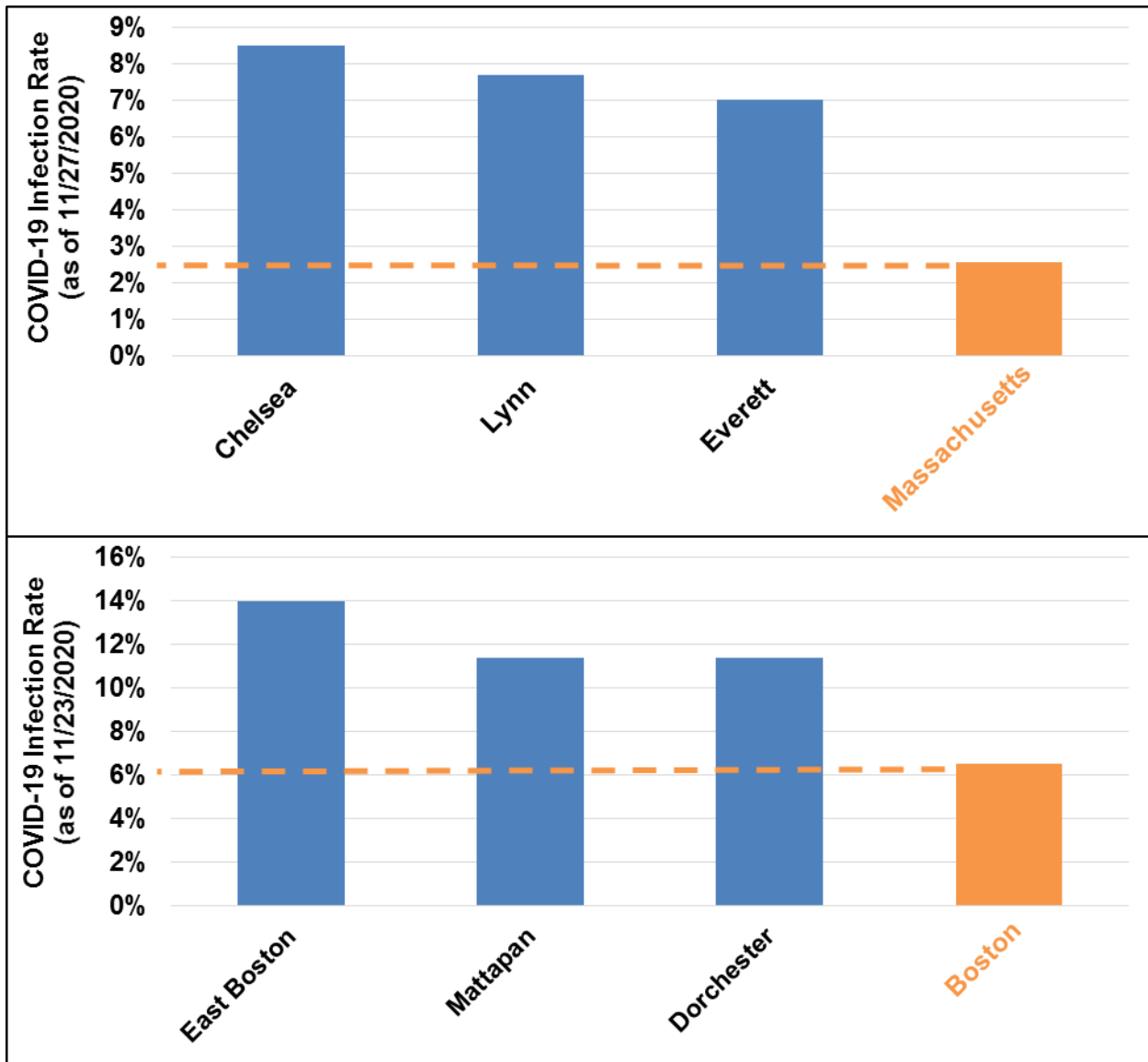
<sup>10</sup> International Energy Agency. April 30, 2020. “Global energy demand to plunge this year as a result of the biggest shock since the Second World War.” Available at: <https://www.iea.org/news/global-energy-demand-to-plunge-this-year-as-a-result-of-the-biggest-shock-since-the-second-world-war>.

<sup>11</sup> ISO New England. May 2020. “2020 Summer Outlook.” Available at: <https://www.iso-ne.com/markets-operations/system-forecast-status/seasonal-system-outlook>.

<sup>12</sup> Boston Public Health Commission (BPHC). November 23, 2020. Neighborhood Testing Data - Cumulative Positivity. Available at: <https://www.bphc.org/whatwedo/infectious-diseases/Infectious-Diseases-A-to-Z/covid-19/Pages/default.aspx>.



Figure 2. COVID infection rate (percent of total tested)



Sources: 1) MA Department of Public Health. November 27, 2020. COVID-19 Weekly Public Health Report - Raw Data [City/town]. Available at: <https://www.mass.gov/info-details/covid-19-response-reporting# covid-19-weekly-public-health-report-> 2) Boston Public Health Commission (BPHC). November 23, 2020. Neighborhood Testing Data - Cumulative Positivity. Available at: <https://www.bphc.org/whatwedo/infectious-diseases/Infectious-Diseases-A-to-Z/covid-19/Pages/default.aspx>.

## Conclusion

I recommend that EFSB vote to reject the Tentative Decision issued by the Siting Board, given: the increasingly out-of-date electric load data that Eversource uses to support its claim that the East Eagle Street Substation is needed; Eversource's incorrect and shifting claims about the substation's role in



ensuring reliable electric service; and the impacts of the COVID-19 pandemic, which include drastic drops in electric demand and the particularly devastating nature of COVID-19 infections in Chelsea, East Boston and Everett.

If EFSB votes to approve the new substation, conditions on its approval should include, at a minimum: that Eversource provide the EFSB with up-to-date load information for the Chelsea/East Boston/Lynn load pocket, an updated load forecast that reflects the most recent ISO-NE load forecasts for Massachusetts, and information on the expected load addition of the Massport project. Five-year-old data is not an appropriate basis for decisions regarding new electric infrastructure. The lack of up-to-date electric load data makes it impossible to assess the validity of Eversource's most recent claims about potential reliability issues related to the Massport project. The communities that would be disrupted by the construction and operation of the East Eagle Street Substation and two underground transmission lines are all among the hardest-hit by the COVID-19 pandemic in the Commonwealth.