

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

ENERGY FACILITY SITING BOARD

In Re: Invenergy Thermal Development LLC        )  
Application to Construct and                        )  
Operate the Clear River Energy                    )  
Center, Burrillville, Rhode Island                )        Docket SB-2015-06

SUPPLEMENTAL PREFILED TESTIMONY OF  
GLENN C. WALKER

Summary:

The supplemental prefiled testimony of Mr. Walker concludes that the proposed Clear River Energy Center (“CREC”) is not justified by long-term State of Rhode Island and/or regional energy need forecasts, and that there are more than ample cost-effective efficiency and conservation opportunities that provide appropriate alternatives to the proposed facility.

**List of Exhibits**

Exhibit GCW-1	CT Siting Council Docket No. 470 Opinion
Exhibit GCW-2	Invenergy Response to CLF No. 9 (CONFIDENTIAL)
Exhibit GCW-3	CELT Report Net Summer Peak Load Reduction
Exhibit GCW-4	Summary of At Risk Units in the ISO-NE
Exhibit GCW-5	Ryan Hardy work paper (CONFIDENTIAL)

1 INTRODUCTION

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**Q. Please state your name, business address, and employer.**

A. My name is Glenn C. Walker and my business address is 7 Greenleaf Woods Drive, Unit 102, Portsmouth, NH. I am employed by George E. Sansoucy, P.E., LLC.

**Q. On whose behalf are you testifying?**

A. My testimony is on behalf of the Town of Burrillville, RI in opposition to the application for a license from the Rhode Island (“RI”) Energy Facility Siting Board (“EFSB” or the “Board”) to construct the Clear River Energy Center (“CREC”) project in Burrillville, RI.

**Q. Have you previously filed testimony in this matter which includes your resume and nature of your testimony?**

A. Yes. I provided testimony to the RI EFSB on March 2, 2017 regarding the lack of need for the CREC facility being proposed by Invenergy.

**Q. What is the purpose of your testimony in this proceeding?**

A. On October 29, 2015, Invenergy filed an application with the RI EFSB to construct CREC, a proposed 1,000± megawatt (“MW”) two block combined cycle dual-fuel generating facility to be located in Burrillville, RI. The capacity of each power block for Units 1 and 2 is rated at approximately 500 MW.

1 My testimony addresses why I am of the opinion that the proposed facility is not justified  
 2 by long term state and/or regional energy need forecasts, and that there are cost effective  
 3 efficiency and conservation opportunities that provide appropriate alternatives to the  
 4 proposed facility. In light of recent developments, the September 12, 2016 Advisory  
 5 Opinion from the RI PUC on these issues has been proven to be inaccurate. My testimony  
 6 addresses the following:

- 7 • The rejection by the ISO-NE of CREC Unit 2 in the last two Forward Capacity  
 8 Auctions (“FCAs”);
- 9 • The level of energy-efficiency, demand reduction, and renewables procured by the  
 10 ISO-NE in its most recent FCA;
- 11 • The anticipated trend of energy-efficiency, demand reduction, and renewable resources  
 12 in the ISO-NE’s geographic region;
- 13 • The fact that the CREC is not needed in Rhode Island or the region;
- 14 • CREC will do little, if anything, to lower electric rates for consumers in Rhode Island  
 15 and will have equally little impact on air quality; and
- 16 • The expectation that the ISO-NE capacity prices will remain at or near \$5.00 to  
 17 \$6.00/kW-month in the near-term, illustrating the existence of lower cost alternatives  
 18 than the CREC project.

19  
 20 **Q. Are you updating and supplementing your original testimony based on new**  
 21 **information?**

22 **A.** Yes. I am updating and supplementing my testimony to reflect new information not  
 23 available at the time of my prior testimony.

1 **Q. Can you summarize the key points of your testimony and the new information?**

2 A. Yes.

3 1. As stated in my prior testimony, the ISO-NE held its 11<sup>th</sup> annual Forward Capacity  
4 Auction (FCA 11) in February 2017 for the Capacity Commitment Period (“CCP”)  
5 June 1, 2020 through May 31, 2021. In that auction, CREC Unit 2 was not awarded a  
6 Capacity Supply Obligation (“CSO”) and only about 240 MW of “at risk” units as  
7 identified by the ISO-NE exited the market. The remaining at risk units remained  
8 because the capacity clearing price was sufficient to justify continued operation of these  
9 older units.

10

11 2. FCA 11 also procured 1,760 MW of excess resources, most of which were energy-  
12 efficiency, demand reduction, or renewables.

13

14 3. The recent ISO-NE 2017 CELT (Capacity, Energy, Loads, and Transmission) report  
15 released on May 1, 2017 confirms my prior testimony of continued net summer peak  
16 load reduction and significant additions of behind-the-meter (“BTM”) photovoltaic  
17 (“PV”), energy-efficiency, and demand reduction.

18

19 4. Consistent with my prior testimony, Massachusetts has issued two Requests for  
20 Proposals (“RFPs”), including one for large-scale renewable resources and a second  
21 for offshore wind, which are anticipated to provide Massachusetts with approximately  
22 2,000 MW of renewable generation, confirming my prior testimony that development  
23 of non-fossil based resources will meet ISO-NE demand.

1 5. The Connecticut (“CT”) Siting Council rejected a proposed 550 MW gas-fired unit that  
2 did not have a CSO from the ISO-NE, finding that it was not needed for system  
3 reliability.

4  
5 **Q. Can you explain the decision by the CT Siting Council you just mentioned?**

6 A. Yes. On August 17, 2016, NTE Connecticut, LLC (“NTE or Applicant”), applied to the  
7 CT Siting Council for a Certificate of Environmental Compatibility and Public Need for  
8 the construction, maintenance, and operation of a new 550 MW dual-fuel combined cycle  
9 electric generating facility and associated electrical interconnection switchyard located at  
10 180 and 189 Lake Road, Killingly, Connecticut. (Note that the proposed Invenergy facility  
11 in Burrillville is also a dual-fuel combined cycle facility.)

12  
13 Under the Connecticut standards, the Siting Council is required to balance the need for  
14 adequate and reliable public utility services at the lowest reasonable cost to consumers with  
15 the need to protect the environment and ecology of the state. This requirement of the CT  
16 Siting Council is consistent with that of the RI EFSB.

17  
18 On May 11, 2017, in its Opinion, the CT Siting Council found that, due to the absence of  
19 a CSO from the ISO-NE, the proposed plant was “not necessary for the reliability of the  
20 electric power supply of the state or for a competitive market for electricity at this time”  
21 and the certificate of necessity was denied. A copy of this decision is provided as Exhibit  
22 GCW-1 with the pertinent discussion found at pages 11 and 12.

1 **Q. In FCA 10 were there two other large fossil units given CSOs by the ISO-NE?**

2 A. Yes. In FCA 10, the ISO-NE issued CSOs for the following resources:

- 3 • 485 MW CREC Unit 1
- 4 • 484 MW (CSO) Bridgeport Harbor 6 unit in Bridgeport, Connecticut
- 5 • 333 MW (CSO) Canal 3 unit in Sandwich, Massachusetts

6

7 **Q. Is CREC Unit 1 the only resource that is proposing to be a new greenfield project?**

8 A. Yes. While the CREC project is being located close to the Spectra Compressor Station,  
9 there has never been a generating facility on this site.

10

11 The other two resources selected are additions to existing facilities with generation on sites  
12 dating back several decades. The first unit at Bridgeport Harbor went on-line in 1967 and  
13 Canal's first unit began operating in 1968.

14

15 **Q. Are you aware if both the resources have been approved by their respective state's  
16 siting authority?**

17 A. Yes. The 350 MW Canal 3 project was approved by the Massachusetts EFSB on July 5,  
18 2017 in a lengthy order addressing the project. The 485 MW Bridgeport Harbor 6 project  
19 was approved on July 22, 2016 in a declaratory ruling by the CT Siting Council.

20  
21  
22

1 **Q. Do these approvals demonstrate that there are new, fast-start, dual-fuel units moving**  
 2 **forward in New England?**

3 A. Yes. These decisions indicate that appropriately sited proposals for new capacity are being  
 4 granted siting permits with little local community opposition. For example, in the cases of  
 5 both Bridgeport Harbor 6 and Canal 3, the local community supported approval of the  
 6 project.

7  
 8 **Q. How does the CT Siting Council decision denying a proposed plant without a CSO**  
 9 **relate to the CREC project?**

10 A. Applying the logic used by the CT Siting Council, the application by Invenergy for a 1,000  
 11 MW facility should be rejected because the second unit, which reflects approximately 500  
 12 MW, or half of the facility, does not have a CSO. Clearly the second unit is not needed. If  
 13 the RI EFSB granted approval for the entire 1,000 MW facility, the RI EFSB would allow  
 14 the construction of at least 500 MW that has failed to obtain a CSO and would be surplus  
 15 to the existing resources. Therefore, the proposed 1,000 MW facility is not needed in the  
 16 state and/or region for energy of the type to be produced by CREC.

17  
 18 **Q. In Invenergy’s most recent testimony filed on June 30, 2017, Invenergy witness Ryan**  
 19 **Hardy discusses how the FCA process is a mechanism to determine the need for a**  
 20 **project. Are you familiar with this testimony at pages 7 through 9?**

21 A. Yes. Mr. Hardy states that: “By clearing this type of free market auction, the ISO-NE has  
 22 determined a project to be needed.”<sup>1</sup>

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<sup>1</sup> Pre-Filed Direct Testimony of Ryan Hardy, June 30, 2017, p. 8 lines 22, 23.



1 Q. **Based on this testimony, is Mr. Hardy saying CREC Unit 2 is not needed by the ISO-**  
2 **NE because it has failed to obtain a CSO?**

3 A. Yes. If the determination of need is that a unit has cleared the FCA, then by not clearing  
4 the FCA the second unit is not needed by definition. The lack of a CSO (as is the case for  
5 CREC Unit 2) represents a determination that the unit is not needed by the region.  
6 Therefore, consistent with the CT Siting Council decision, the application should be  
7 rejected.

8  
9 Q. **In your opinion, could a particular unit that has a CSO still not be needed for**  
10 **reliability by the ISO-NE?**

11 A. Yes. The FCA market only determines the need for system capacity. It does not mandate a  
12 particular unit. As stated in the ISO-NE market rule, Section III.13:

13  
14 *“To be eligible to assume a Capacity Supply Obligation for a Capacity Commitment Period*  
15 *through the Forward Capacity Auction, a resource must be accepted in the Forward*  
16 *Capacity Auction qualification process in accordance with the provisions of Section*  
17 *III.13.1. A Capacity Supply Obligation is an obligation to provide capacity from a*  
18 *resource, or a portion thereof, that is acquired through a Forward Capacity Auction in*  
19 *accordance with Section III.13.2, a reconfiguration auction in accordance with Section*  
20 *III.13.4, or a Capacity Supply Obligation Bilateral in accordance with Section III.13.5.”*

21  
22

1 **Q. Does the ISO-NE allow resources to procure alternative resources to meet a CSO**  
2 **obtained in an FCA?**

3 A. Yes. The ISO-NE market rule at Sections III.13.4 and 13.5 allow a resource that acquired  
4 CSOs by clearing an auction to trade out of its CSO in either a reconfiguration auction or  
5 a bilateral agreement (arrangement negotiated by two parties) subject to the rules set forth  
6 by the ISO-NE. In the case of a new resource, there are additional rules that limit the  
7 number of times it can substitute capacity, but it is nonetheless allowed to substitute  
8 alternative capacity resources.

9  
10 **Q. Can you generally describe the reconfiguration auctions?**

11 A. Yes. There are multiple reconfiguration auctions that give market participants the  
12 opportunity to sell an obligation previously acquired in the primary FCA. These include  
13 three annual reconfiguration auctions and 12 monthly reconfiguration auctions between the  
14 original FCA and the beginning of the CCP.

15  
16 The price in the reconfiguration auction will be an indicator of capacity available in the  
17 marketplace. If a reconfiguration auction clears substantially higher than the price  
18 established in the original FCA for a particular CCP, then the market is short of capacity  
19 and sellers can ask higher prices. Conversely, if the market has excess capacity, prices will  
20 be less than the primary FCA due to excess capacity.

21 [START CONFIDENTIAL]

22 [REDACTED]

23 [REDACTED]

1 [REDACTED]

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[END CONFIDENTIAL]

- 12 **Q. Does the ISO-NE forecast supply and demand in the region?**
- 13 A. Yes. The ISO-NE annually publishes the CELT report which is a forecast of capacity,  
14 energy, loads, and transmission that forms the basis for the assumptions used in electric  
15 planning. The annual CELT report is published in May and provides a 10-year forecast for  
16 the region.
- 17
- 18 **Q. Is the CELT report something you use regularly in your valuation and consulting  
19 assignments?**
- 20 A. Yes. I use the CELT report to analyze supply and demand trends and the types of resources  
21 being used to meet the electric demand.
- 22

1 **Q. Have you compared the most recent 2017 CELT report published in May 2017 with**  
2 **prior CELT reports?**

3 A. Yes. I have made a comparison on relevant supply and demand estimates from the 2015  
4 and 2017 CELT reports which is attached as Exhibit GCW-3.

5  
6 **Q. What does the comparison demonstrate with respect to the ISO-NE's forecast of load,**  
7 **energy-efficiency, and BTM PV?**

8 A. In each of the subsequent reports (2016 and 2017), the forecast of net summer peak load is  
9 lower than the 2015 forecast. This is illustrated in Exhibit GCW-3.

10

11 **Q. Does this reduction in the forecast of net summer peak load make it even more**  
12 **unlikely that CREC Unit 2 will clear in the next several FCAs?**

13 A. Yes. The continued deployment of BTM PVs, energy-efficiency, and demand reduction  
14 have resulted in significant declines in the net summer peak load between the 2015 and  
15 2017 CELT reports.

16

17 **Q. Does the lower net summer peak load forecast in the 2017 CELT report demonstrate**  
18 **a qualitative reason CREC Unit 1 is not needed for reliability in the ISO-NE system?**

19 A. Yes. The forecast change in net summer peak load for the 2020 CCP between the 2015 and  
20 2017 CELT report forecasts is a reduction of 1,102 MW (Exhibit GCW-3). This change is  
21 anticipated to grow to 1,700 MW by 2024. Therefore, the significant reduction in the  
22 anticipated load in New England illustrates how continued erosion of load is eliminating  
23 the need for new large-scale fossil units, like CREC, in the New England system.

1 **Q. Are the forecast net summer peak load reductions the only significant changes**  
2 **anticipated in the system?**

3 A. No. First, as I stated in my prior testimony, in 2016, the states of Connecticut,  
4 Massachusetts, and Rhode Island issued a request for clean energy. The request, known as  
5 the “three-state Clean Energy RFP,” procured a total of 460 MW of clean energy from  
6 large-scale wind and solar resources.

7  
8 Second, in addition to a lower net summer peak load forecast, Massachusetts has issued  
9 two RFPs relating to significant procurements of new renewable resources that will be  
10 equivalent to the addition of at least 2,000 MW of supply in the region.

11  
12 Third, Massachusetts is continuing to promote solar through its SMART (Solar  
13 Massachusetts Renewable Target) program that is anticipated to add an additional 1,600  
14 MW of solar and energy storage projects to the ISO-NE system.

15  
16 **Q. Are you aware of legislative action that will provide future renewable growth in**  
17 **addition to the RFPs you previously mentioned?**

18 A. Yes. In 2016, Massachusetts passed a comprehensive clean energy bill, which “requires  
19 utilities to competitively solicit and contract for approximately 1,200 MW of clean energy  
20 generation – base load hydropower, onshore wind and solar supported by hydropower,  
21 standalone onshore wind, solar and other Class I renewable resources.”<sup>2</sup> The legislation

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<sup>2</sup> <http://www.mass.gov/governor/press-office/press-releases/fy2017/governor-baker-signs-comprehensive-energy-diversity-law.html>

1 also permits the procurement of 1,600 MW of offshore wind. This total procurement would  
2 reflect approximately 40% of all electricity consumed in Massachusetts.

3  
4 **Q. Have any of the legislatively mandated procurements proceeded with the issuance of**  
5 **RFPs seeking large-scale renewables and offshore wind?**

6 A. Yes.

- 7 • On March 31, 2017, the Massachusetts utilities issued a RFP for long-term contracts  
8 for Clean Energy Projects, seeking 9,450,000 MWh of clean energy which is estimated  
9 to be approximately 1,200 MW (assuming a 90% capacity factor); and
- 10 • On June 29, 2017, the Massachusetts utilities issued a RFP seeking long-term contracts  
11 for at least 400 MW of offshore wind energy with a goal of procuring 1,600 MW by  
12 2027.

13  
14 **Q. Has there been a market response to these requests?**

15 A. Yes. There were multiple offers to provide renewable energy in the first Massachusetts  
16 RFP for 9,450,000 MWh of clean energy. This included several major transmission lines  
17 and multiple wind and solar projects.

18  
19 The large transmission line proposals provided in response to the RFP include the  
20 following projects which represent approximately 6,000 MW of potential new capacity for  
21 the New England region.



- 1 • New England Clean Energy Connect connects Hydro-Quebec dams to the New  
2 England grid. The 1,200 MW transmission line runs 145 miles from the Canadian  
3 border to a substation in Lewiston, Maine.
- 4 • Maine Clean Power Connection would run 140 miles from far western Maine to  
5 Lewiston bringing wind and solar facilities. The transmission line's top capacity would  
6 be 1,100 MW, and the plan contains a possible battery storage component.
- 7 • Granite State Power Link would run 170 miles from a converter station in northern  
8 Vermont to one in Monroe, New Hampshire then to Londonderry, New Hampshire,  
9 delivering 1,200 MW of wind power from Quebec.
- 10 • Northeast Renewable Link would run 23 miles, delivering up to 600 MW of new wind,  
11 solar and small hydro in New York to an Eversource substation in Hinsdale,  
12 Massachusetts.
- 13 • TDI New England submitted two proposals for its proposed New England Clean  
14 Power Link, which would travel beneath Lake Champlain. One plan would provide  
15 1,000 MW from Hydro-Quebec and the other would provide 700 MW of Canadian  
16 hydro and 300 WM of wind power from facilities in New York and Canada planned by  
17 Gaz Metro and Boralex.
- 18 • Atlantic Link project would be a 900 MW cable that would travel 370 miles under the  
19 ocean from New Brunswick and Nova Scotia, and tie into the grid near the Pilgrim  
20 Nuclear Station in Plymouth, Massachusetts. This project would deliver wind and  
21 hydro from Canada.
- 22 • Eversource submitted two bids for its proposed 192-mile Northern Pass transmission  
23 line. One plan would deliver 1,090 MW from Hydro-Quebec, and the other would

1 transport a combination of Canadian hydro and power from wind facilities under  
2 development by Gaz Metro and Boralex.

3  
4 In addition, thousands of megawatts of proposed solar and wind projects also bid into the  
5 Clean Energy RFP, representing projects throughout New England.

6  
7 **Q. In regards to CREC's fast start, ramping, and flexibility characteristics, are there**  
8 **other alternatives being proposed in the market?**

9 A. Yes. As I mentioned earlier, the new 484 MW Bridgeport Harbor 6 project and the new  
10 333 MW Canal 3 project have fast start, ramping, and flexibility characteristics. These  
11 characteristics are anticipated to be supplied with energy storage technologies in the future,  
12 including batteries, pumped storage, and other forms of energy storage or load shifting.  
13 For example, in May 2015, the Baker Administration in Massachusetts launched an energy  
14 storage initiative to promote this type of storage technology. The new advanced energy  
15 storage program is designed to enhance the efficiency, affordability, resilience, and  
16 cleanliness of the electric grid. In this regard, the program envisions 600 MW of new  
17 advanced energy storage to be developed in Massachusetts by 2025 with an \$800 million  
18 benefit to ratepayers.<sup>3</sup> This is just a single example of how storage will reduce the need  
19 for new fossil units in the ISO-NE geographic region.

20  
21  
22  

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<sup>3</sup> State of Charge, Massachusetts Energy Storage Initiative Study, p. i.

1 **Q. Does it matter that several of your examples relate to Massachusetts?**

2 A. No. As I stated previously, Rhode Island and Massachusetts have been combined together  
3 for electrical purposes in the Southeastern New England (“SENE”) load zone. Therefore,  
4 efficiency or renewable programs implemented in Massachusetts benefit the entire SENE  
5 zone.

6  
7 **Q. Did you previously provide testimony regarding unit retirements in the ISO-NE  
8 system?**

9 A. Yes. My prior testimony stated that I do not anticipate any significant unit retirements due  
10 to the fact that the FCA 11 capacity price of \$5.30/kW-month appears sufficient to retain  
11 the older units in the ISO-NE system.

12  
13 **Q. Can you elaborate on your prior testimony in this regard?**

14 A. Yes. It is simple economics. If prices are high enough older units will choose to stay in the  
15 market due to the financial incentives. If one looks at the capacity market trends and the  
16 decision by older units to retire, most units announced retirement when capacity prices  
17 were in the \$3.00-\$4.00/kW-month range.

18  
19 In FCA 11, only a small portion of the Yarmouth units (155 MW) exited the market.  
20 However, other units did not retire but chose to stay in operation so that they could  
21 participate in reconfiguration auctions, the energy market, and/or future FCAs.

22

23

1 **Q. Have you reviewed those at risk units that chose to stay in the market after FCA 11?**

2 A. Yes. I have compared the units the ISO-NE identified as at risk in the 2017 Regional  
3 Electricity Outlook, page 28, all of which, except for the Yarmouth units, received CSOs  
4 in FCA 11. It is my opinion that at the current capacity prices, few, if any, of these units  
5 are likely to exit the market over the next several FCAs (Exhibit GCW-4).

6

7 **Q. Have you reviewed the retirement delist bids that have been filed in advance of FCA**  
8 **12 which will be held in February 2018?**

9 A. Yes. There are 519 MW that have submitted retirement delist bids. It is my opinion that  
10 this total likely includes the 380 MW Bridgeport Harbor coal-fired unit that previously  
11 announced closure. Therefore, of the approximately 5,500 MW of capacity identified as at  
12 risk, only about 380 MW is likely to exit the market in FCA 12 if prices are in the \$5.00-  
13 \$6.00/kW-month range. The market surplus will easily absorb this.

14

15 **Q. Have you reviewed the criticism of your prior testimony by Invenergy witness Ryan**  
16 **Hardy filed on June 30, 2017 on pages 34 through 37?**

17 A. Yes.

18

19 **Q. Do you agree with Mr. Hardy's statements?**

20 A. No. I do not agree with his criticisms of my testimony. In fact, in several instances Mr.  
21 Hardy either misrepresented my testimony or his criticisms were unfounded.

22

23

1 **Q. Can you give examples of where this was the case?**

2 A. Yes. Mr. Hardy criticized my testimony for relying on the ISO-NE 2015 Regional  
3 Electricity Outlook to identify units at risk of retirement. The reference to this document  
4 was only for background purposes and was intended to illustrate when the ISO-NE started  
5 explicitly tracking retirements at risk. Here are the excerpts from my testimony:

6 *“Q. Are you aware that in this document the ISO-NE identifies units that have retired  
7 as well as those units which may possibly retire in the near future?”*

8 *A. Yes, in 2015 the ISO-NE started publishing statistics in its Regional Electricity  
9 Outlook on units that plan to retire or are at risk of retiring.*

10 *Q. Have a number of units identified in the 2015 Regional Electricity Outlook  
11 retired prior to FCA 11?*

12 *A. Yes, most of the units at risk for retirement appear to have retired prior to FCA  
13 11.”<sup>4</sup>*

14

15 In misrepresenting my testimony, Mr. Hardy fails to acknowledge that I stated:

16 *“No large resources retired in FCA 11. A few small oil-fired generating units  
17 delisted during the auction, which means they chose to drop out of the FCM for one  
18 year but can still sell energy during the 2020-2021 capacity period. In fact, these  
19 units may choose to re-enter FCA 12.”<sup>5</sup>*

20

21 The reference to my testimony is that most of the units identified by the ISO-NE exited the  
22 market in CCPs prior to 2020/2021.

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<sup>4</sup> Prefiled Testimony of Glenn C. Walker, March 2, 2017, p. 7, lines 4 - 11.

<sup>5</sup> Ibid, p. 6, lines 16-19.

1 [START CONFIDENTIAL]

2 [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10  
11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [END CONFIDENTIAL]

15 **Q. Do the lack of anticipated retirements, along with the addition of BTM PV, energy-**  
16 **efficiency, demand resources, and recent RFPs for large-scale renewables confirm**  
17 **your opinion that both CREC Unit 1 and Unit 2 are not needed for reliability?**

18 A. Yes.

19  
20 **Q. Does Mr. Hardy disagree with any other areas of your testimony?**

21 A. Yes. He states that I made unsupported (incorrect) statements which include the following:

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<sup>6</sup> Pre-Filed Direct Testimony of Ryan Hardy, June 30, 2017, p. 20 lines 3-5.

1 (1) [Mr. Walker] claims that CREC Unit 2 will not clear in the next several auctions, but  
 2 fails to conduct any analysis of the future supply and demand in the market;

3 (2) [Mr. Walker] makes statements about future of renewable generation and energy  
 4 efficiency growth without any analysis behind the cost-effectiveness of these technologies  
 5 or what the growth trajectory of these technologies will look like; and

6 (3) [Mr. Walker] states that capacity above the NICR is not needed, despite the fact that  
 7 ISO-NE and the RI PUC have both determined that capacity above the NICR is needed.<sup>7</sup>  
 8

9 **Q. Can you address each of these issues raised by Mr. Hardy?**

10 A. Yes. (1) In regards to CREC Unit 2 not clearing and my disregard of qualitative analyses,  
 11 as I stated earlier, I continuously review the CELT reports in my valuation practice and  
 12 routinely review the Forecast of Generic New Entities prepared by ABB/Ventyx<sup>8</sup> for the  
 13 New England market, both of which provide qualitative analyses of supply and demand.  
 14 The results of this review formed the basis for my testimony that there is no reasonable  
 15 scenario in which CREC Unit 2 is given a CSO over the next several auctions. In fact, post  
 16 2020, ABB/Ventyx forecast no new large-scale natural gas-fired units coming on-line in  
 17 the New England region. ABB/Ventyx does have additions of large-scale wind and BTM  
 18 PV during this same time period.

19  
 20 (2) In regards to the addition of future renewables and energy-efficiency, my analysis is  
 21 supported not only by the 2017 CELT report, which shows BTM PV growing from 439

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<sup>7</sup> Pre-Filed Direct Testimony of Ryan Hardy, June 30, 2017, p. 36 line 24 through p. 37 line 6.

<sup>8</sup> Ventyx, an ABB company, is a leading business solutions provider to global energy and utility organizations. Ventyx is one of the largest providers of energy market data and forecasts and offers some of the industry's most rigorous forecasts, software, and independent market analyses.

1 MW in 2016 to 1,035 MW by 2026, but also demand response growing from 1,839 MW  
2 to 4,475 MW by 2026. (Exhibit GCW-3.) In addition, Massachusetts has issued two RFPs  
3 that will likely result in approximately 2,000 MW of new offshore wind and large-scale  
4 renewable projects. Finally, the new unit additions analysis provided by ABB/Ventyx  
5 shows significant amounts of renewables being added to the system post 2020 in addition  
6 to the RFPs issued by the MA utilities. These facts clearly support my prior and current  
7 testimony regarding future renewables and energy-efficiency penetration and growth in the  
8 ISO-NE system.

9 (3) Finally, Mr. Hardy states that I claimed capacity above the NICR is not needed.  
10 Nowhere in my testimony is such a claim made. However, the participation by Invenergy  
11 in the recent reconfiguration auction and its ability to satisfy the first-year commitment  
12 without building a new unit in Burrillville is proof that there is no need for the 1,000 MW  
13 CREC project being proposed by Invenergy.

14  
15 **Q. Have you reviewed the testimony provided to the RI PUC with respect to savings for**  
16 **Rhode Island consumers?**

17 A. Yes. In reviewing the documents and testimony with respect to CREC, the savings to  
18 Rhode Island customers is likely to be very insignificant. The continued decline of capacity  
19 prices makes it likely that CREC will produce little, if any, savings to Rhode Island  
20 ratepayers. As an example, based on the testimony of Seth Parker before the RI PUC, the  
21 savings for a single unit would only be in the range of 1 to 2%,<sup>9</sup> and this testimony was  
22 presented prior to the lower capacity results in FCA 11.

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<sup>9</sup> RI PUC Docket No. 4609, July 27, 2016 transcript, p. 89 lines 8-24 and p. 90 lines 1-4.



1 **Q. Have you also reviewed the testimony with respect to regional and local air quality?**

2 A. Yes. The regional impact on air quality is minimal, with reductions from 2019-2022  
3 projected to be under 1% for CO<sub>2</sub> and NO<sub>x</sub> and under 3% for SO<sub>2</sub>.<sup>10</sup> Therefore, the air  
4 quality impact for the region is very insignificant given the reduction in CO<sub>2</sub> and NO<sub>x</sub> of  
5 less than 1%. However, the local (Rhode Island) air impacts are hugely negative. For  
6 example, this plant would emit 7.2 billion tons per year of CO<sub>2</sub> into the air above  
7 Burrillville, together with hundreds of thousands of pounds annually of numerous toxic  
8 pollutants.

9  
10 **Q. Are the opinions you have expressed in your original testimony and this supplemental**  
11 **testimony based upon your education, training, experience and the materials you**  
12 **have reviewed to prepare your testimony, and are those opinions also based upon a**  
13 **reasonable degree of certainty or probability in your fields of expertise?**

14 A. Yes.

15

16 **Q. Does that conclude your supplemental testimony?**

17 A. Yes

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<sup>10</sup> Pre-Filed Direct Testimony of Ryan Hardy, June 30, 2017, p. 21 lines 18-22.