

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
ENERGY FACILITY SITING BOARD

IN RE: Application of
Invenergy Thermal Development LLC's
Proposal for Clear River Energy Center

Docket No. SB 2015-06

**POST-HEARING MEMORANDUM OF
CONSERVATION LAW FOUNDATION**

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I. INTRODUCTION

The issue in this case is whether or not the Energy Facility Siting Board (EFSB)¹ can grant a permit to Invenergy to build a 1,000 megawatt (MW) fossil fuel power plant in what is now a forest in Burrillville, Rhode Island.

II. THE LEGAL STANDARD APPLICABLE TO INVENERGY'S APPLICATION

A. The Substantive Standard

Under the Energy Facility Siting Act (EFSA), the EFSB cannot grant a license to Invenergy unless the EFSB finds that: (a) the proposed facility is needed;² and (b) that building and operating the plant would not cause unacceptable harm to the environment;³ and (c) that “the proposed facility is cost-justified, and can be expected to produce energy at the lowest reasonable cost”⁴

All three of these requirements also appear in the EFSB Rules of Practice and Procedure, which recite that the EFSB cannot grant a license unless it finds that: (a) “the proposed facility is necessary to meet the needs of the state and or region for energy”⁵ and (b) “the proposed facility will not cause unacceptable harm to the environment;”⁶ and that (c) “the proposed facility can be expected to produce energy at the lowest reasonable cost to the consumer”⁷

The EFSB's Preliminary Order in this case reflects all of these required prongs: need, environmental harms, and cost.⁸ “In the Board's consideration of [environmental harm], it

¹ The subject matter of this Docket is unusually rich with acronyms. In addition to spelling out every acronym in the text the first time it appears, CLF also appends a Table of Acronyms after the Certificate of Service at the end of the brief as an aid to the reader.

² R. I. Gen. Laws § 42-98-11(b)(1).

³ R. I. Gen. Laws § 42-98-11(b)(3).

⁴ R. I. Gen. Laws § 42-98-11(b)(2).

⁵ EFSB Rule 1.13(c)(1).

⁶ EFSB Rule 1.13(c)(4).

⁷ EFSB Rule 1.13(c)(3).

⁸ Preliminary Decision and Order (March 10, 2016), p. 9 (as to need and cost); p. 11 (as to unacceptable environmental harm).

construes the term ‘environment’ broadly”⁹ The EFSB’s Preliminary Decision and Order in this case further reflects that the EFSB cannot grant a license unless it finds that “the proposed facility is necessary to meet the needs of the state and or region for energy”¹⁰

B. The Burden of Proof

Under the EFSA, the burden of proof on every issue in this case is on Invenergy.¹¹ This is why previous decisions of the EFSB have consistently reflected that the applicant has the burden of proof on every issue.¹²

III. BECAUSE INVENERGY’S PLANT IS NOT NEEDED, THE EFSB CANNOT GRANT INVENERGY A PERMIT

The lack of need for the proposed Invenergy plant has been a central focus in this proceeding for almost four years, addressed by several witnesses, consuming days of testimony, and necessitating reams of filings from the parties. And for good reason. Rhode Island law¹³ and the EFSB’s own rules¹⁴ are designed to ensure that the state’s resources and the community and people of the Town of Burrillville (Burrillville) are not burdened by a development of the magnitude of the Invenergy proposal unless the applicant makes a demonstration that the project is, in fact, needed.

Further reflective of the centrality of the need standard to this case is Invenergy’s heavy

⁹ Id.

¹⁰ Unfortunately, Invenergy has presented two diametrically opposite statements about the applicable standard during the pendency of this case. For a considerable period, Invenergy insisted that “the Utility Restructuring Act (URA) effectively repealed[ed] by implication the much older need assessment provision of the [Energy Facility Siting Act].” Invenergy Aug. 18, 2016 Post-Hearing Memorandum in PUC Docket # 4609, p. 2 (internal quotation marks omitted). Later, Invenergy’s attorney told the EFSB exactly the opposite: “We are not suggesting . . . that the URA implicitly or sub silentio overruled some portion of the facility siting act. We don’t suggest that at all.” Oct. 31, 2018 Transcript, p. 79, line 22 – p. 80, line 1. In any event, the EFSB’s Preliminary Decision and Order in this case makes clear that a permit cannot be issued unless Invenergy meets its heavy burden of showing that the plant is actually needed, and that ruling is law of the case. Richardson v. Smith, 691 A.2d 543 (R.I. 1997) (collecting Rhode Island cases on the law of the case doctrine).

¹¹ R. I. Gen. Laws § 42-98-11(b).

¹² See, e.g., In Re Ocean State Power, S.B. 1987-01, p. 10; In Re Narragansett Electric Co. E-183 Transmission Line Relocation Project, S.B. 2003-01, p. 7.

¹³ See footnote 2 – 4, above.

¹⁴ See footnote 5 – 7, above.

reliance, starting with its Opening Statement and continuing throughout the hearings, on the fact that it had obtained a Capacity Supply Obligation (CSO) from the Independent System Operator (ISO)¹⁵ to demonstrate need.¹⁶ Today Invenergy has no CSO for either of its two turbines, and neither of Invenergy's two turbines was even qualified to participate in the ISO's most recently held Forward Capacity Auction (FCA).¹⁷ For this reason, and because the vast weight of the evidence presented to the EFSB and now in the Record leads to the inescapable conclusion that the power plant is not needed, a permit cannot be granted to Invenergy.

As Conservation Law Foundation (CLF) demonstrates in the following subsection, ISO actions and a wide range of ISO-run markets show that Invenergy is not needed.

A. The ISO's Unprecedented Termination of Invenergy's CSO and ISO-Run Markets Show That Invenergy Is Not Needed

The ISO's Forward Capacity Market (FCM) is the mechanism by which the ISO procures sufficient electricity generating capacity to ensure the reliability of the New England electricity grid in the future.¹⁸ This is why Invenergy's counsel made repeated references to the FCM in his Opening Statement and why Invenergy's expert on need, Mr. Hardy, made so many references to the FCM in his prefiled testimony.¹⁹

On September 20, 2018, the ISO made a filing with the Federal Energy Regulatory

¹⁵ The very first requirement set forth in the EFSA that Invenergy must satisfy is that the plant be needed: "major energy facilities shall only be undertaken when those actions are justified by long term state and/or regional energy forecasts." R. I. Gen. Laws § 42-98-2(2). The ISO is the regional entity, regulated by the Federal Energy Regulatory Commission (FERC), that runs the energy markets in New England to ensure that there is enough electricity in New England to "keep the lights on." Jan. 16, 2019 Transcript, p. 56, lines 5-16.

¹⁶ April 26, 2019 Transcript, p. 13, lines 8 – 20; id., p. 14, lines 5-7; id., p. 14, line 16 – p. 20, line 2; p. 22, line 11 – p. 23, line 9.

¹⁷ Invenergy Ex. 189 (as to the disqualification of Invenergy's Turbine One for FCA-13, conducted in February 2019); CLF Ex. 19 (as to the disqualification of Invenergy's Turbine Two for FCA-13).

¹⁸ Jan. 12, 2016 (Preliminary Hearing) Transcript, p. 162, line 5 – 163, line 16 (testimony of Ryan Hardy); Invenergy Ex. 36, p. 6, line 20 – p. 7, line 8 (Mr. Hardy testifies that "In the FCM mechanism . . . ISO-NE seeks to procure sufficient capacity, on both a system-wide and localized basis, three years in advance of a delivery year in order to meet peak demand plus minimum target reserve margins."); Jan. 9, 2019 Transcript, p. 11, lines 14 – 22 (Hardy testimony).

¹⁹ See, e.g., Invenergy Ex. 36 (Hardy, July 3, 2017), p. 7 (explaining the FCM); Invenergy Ex. 37C (Hardy, Sept. 14, 2018), p. 3, 5-6.

Commission (FERC) seeking to terminate the 485 MW CSO that Invenergy had obtained (on Turbine One) in Forward Capacity Auction-10 (FCA-10).²⁰ This is the first time in the history of the ISO that the ISO has terminated the entire CSO of a Resource²¹ and is highly probative of the fact that the ISO believes that there is no need for either of Invenergy's two proposed turbines.²² CLF's expert, Mr. Fagan, testified that the ISO's decision to terminate Invenergy's CSO was an important indication that Invenergy's proposed plant is not needed.²³

On September 28, 2018, the ISO disqualified Invenergy's Turbine Two from participating in FCA-13. Taken together, these two ISO actions meant that FCA-13 was conducted (on February 4, 2019) with no participation from Invenergy, and is very strong evidence the ISO believes it does not need Invenergy now or in the foreseeable future to maintain system reliability.²⁴

Invenergy, CLF, and Burrillville all agreed that ISO's involuntary termination of the CSO that Invenergy had obtained on Turbine One was discretionary on the part of the ISO.²⁵ That is, if the ISO believed that Invenergy were needed for system reliability now, the ISO had the discretion not to terminate Invenergy's CSO.²⁶ Indeed, if the ISO even believed that Invenergy might be needed for system reliability in the future, the ISO had the discretion not to terminate

²⁰ Invenergy Ex. 189 (ISO's termination filing with FERC); CLF Ex. 21, Tab C (same).

²¹ Unfortunately, Invenergy's attorney falsely stated that such involuntary terminations of a CSO have occurred dozens of times. Oct. 31, 2018 Transcript, p. 65, line 24 – p. 65, line 3 (“[S]ince 2010 through January of this year, 66 different capacity resources have, in fact, been terminated, the most recent one being January of this year.”) However, in fact, this is the first time in the history of the ISO that this has occurred. CLF Ex. 21 at 6-7 (“This is the first time in the history of ISO NE that it has used its authority under Section III.13.3.4(c) to completely and involuntarily terminate the CSO on any Resource.”). Even Invenergy's own witness, Mr. Hardy, was forced to concede this fact on cross-examination. Jan. 8 Transcript, p. 122, line 14 – p. 123, line 12. (But see id., p. 123, lines 13 – 18, where Mr. Hardy tries to evade this issue after confirming the fact three times.)

²² CLF Ex. 21 p. 6-7.

²³ CLF Ex. 21, p. 6-7.

²⁴ CLF Ex. 21, p. 6-7; Burrillville Ex. 39, p. 14, lines 9 – 16.

²⁵ Jan. 8, 2019 Transcript, p. 45, lines 12 – 16; id., p. 48, lines 16 - 21 (as to Invenergy); CLF Ex. 21, p. 6-7 (as to CLF; “ISO NE had the right, but not the obligation, to terminate Invenergy . . .”); Burrillville Ex. 40, p. 17, lines 12 – 17 (as to Burrillville).

²⁶ Jan. 23, 2019 Transcript, p. 40, lines 2 -17; id., p. 53, lines 14 – 18; id., p. 145, line 18 – p. 146, line 16 (in response to direct question from Director Coit).

Invenergy's CSO.²⁷

The ISO's complete lack of need for either of Invenergy's two proposed turbines was further confirmed by the fact that, immediately before terminating Invenergy's CSO, the ISO did a study of system reliability to assess the consequences of terminating Invenergy's CSO. The ISO found no reliability need for Invenergy.²⁸ The ISO's system reliability study done before terminating Invenergy's CSO accounted for the fact that the ISO's South East New England zone (SENE) (which includes Rhode Island) is modelled as a potentially import-constrained zone. Nevertheless, the ISO found no system reliability problem with terminating Invenergy's CSO.²⁹ As Invenergy itself asserted in its Post-Hearing Memorandum to the Rhode Island Public Utilities Commission (PUC) in PUC Docket # 4609,³⁰ "If [Invenergy] fails to get a CSO . . . it will not be needed."³¹

On November 9, 2018, Invenergy made a filing with FERC in Docket ER-18-2457, the FERC docket which considered the decision by the ISO to terminate Invenergy's CSO.³² The purpose of Invenergy's filing was to urge FERC not to approve ISO's decision to terminate Invenergy's CSO, obviously a matter of huge concern to Invenergy.³³ In its November 9, 2018 FERC filing, Invenergy told FERC that this EFSB docket is "the only gating item" in order for this project to be built. Invenergy stated this twice for emphasis.³⁴

At the time Invenergy made these statements to FERC, Invenergy knew that these

²⁷ Id., p. 40, line 18 – p. 45, line 15 (including detailed responses to questions from Director Coit on how to interpret the CSO termination); id., p. 53, lines 19 – 54. See also Burrillville Ex. 39, at 17, lines 12 – 19.

²⁸ Burrillville Ex. 39, p. 23 – 24; Jan. 23, 2019 Transcript, p. 55, lines 5 – 15.

²⁹ Id.

³⁰ Invenergy Post-Hearing Memorandum in PUC Docket # 4609, p. 5 (citing and quoting expert witness Seth Parker).

³¹ Unfortunately, this is another example of Invenergy presenting two diametrically opposite statements on the same subject to the EFSB at different times. For years, Invenergy presented its CSO as evidence that the plant was needed. But starting on Sept. 20, 2018, when the ISO took the unprecedented step of terminating Invenergy's CSO, Invenergy started – for the first time – singing a very different tune. Suddenly, Invenergy's counsel stated that the presence or absence of a CSO is irrelevant. March 21, 2019 Transcript, p. 194, lines 10 – 15.

³² CLF Ex. 20; March 21, 2019 Transcript, p. 184, line 7 – p. 185, line 21.

³³ March 21, 2019 Transcript, p. 186, line 9 – p. 187, line 18.

³⁴ CLF Ex. 20, p. 4, 10.

statements were untrue.³⁵ On November 9, 2018, Invenergy had actual knowledge that it needed a Major Source permit under the Clean Air Act (from the Rhode Island Department of Environmental Management)(DEM); a wetlands permit (from the U.S. Army Corps of Engineers); a waiver from the Rhode Island Coastal Resources Management Council (CRMC); and a wetlands alteration permit (from DEM).³⁶ In addition, on November 9, 2018, Invenergy had actual knowledge that it needed an interconnection permit from the EFSB in EFSB Docket # 2017-01.³⁷ On the date of Invenergy’s FERC filing none of these permits had been issued. In fact, on the day of Invenergy’s filing, DEM had not yet issued a draft air permit; DEM did not consider Invenergy’s wetlands permit to be complete; and the Final Hearing in the interconnection Docket # 2017-01 had not yet been scheduled. All of these permits were “gating items” necessary for Invenergy to build the plant.

Unfortunately, even when presented with the foregoing facts upon cross-examination, Mr. Niland was unwilling to acknowledge that Invenergy’s November 9, 2018 FERC filing was inaccurate as to this docket being “the only gating item” for this power plant.³⁸ (And, as CLF demonstrates below, Mr. Niland was also unable to testify truthfully about the reason for the ISO’s termination of Invenergy.)

Once Invenergy had acquired its CSO in FCA-10 (in February 2016), Invenergy had to start filing Forward Capacity Tracking System (FCTS) forms with the ISO. Invenergy filed

³⁵ Evidence that goes to the credibility of a party is always relevant. U. S. Aviation Underwriters v. Pilatus Business Aircraft, Ltd., 582 F.3d 1131, 1148 (10th Cir. 2009). A party’s lack of credibility on one matter can adversely affect its credibility on other matters in issue. Burfield v. Babbitt, 272 F. Supp.2d 1243, 1247 (D.N.M. 2002). In particular, the use of falsified documents can properly lead a fact-finder to an adverse conclusion regarding a party’s character, conduct, and credibility. Web Communications Group, Inc. v. Gateway 2000, Inc., 160 F.R.D. 108, 110 (N.D. Ill. 1995).

³⁶ Invenergy Ex. 1B (Nov. 9, 2016 letter from Mr. Niland to the EFSB enumerating outstanding permits required by Invenergy); March 26, 2019 Transcript, p. 190, line 20 – p. 198, line 18 (as to the fact that none of these required permits had yet been issued, and that as to the two DEM permits, even draft permits had not been issued, either as of Nov. 9, 2018 or as of the March 26, 2019 hearing date).

³⁷ March 26, 2019 Transcript, p. 198, line 19 – p. 201, line 22. The Final Hearing in the interconnection docket (2017-01) had neither commenced nor concluded on Nov. 9, 2018. Id., p. 201, line 23 – p. 202, line 13.

³⁸ Id., p. 205, line 8 – p. 215, line 9.

these at first quarterly, and, starting in November 2016, monthly.³⁹ The purpose of the monthly FCTS forms was for the ISO to keep track of Invenenergy's progress in meeting Critical Path Schedule Milestones (CPS Milestones).⁴⁰ Invenenergy understood very well the importance to the ISO of getting accurate information on FCTS forms in order to perform its functions pertaining to system reliability and keeping the lights on.⁴¹

[REDACTED]

³⁹ Invenenergy Ex. 142A includes Invenenergy's quarterly and monthly FCTS filings through and including Dec. 2017; Invenenergy Ex. 142B is Invenenergy's Jan. 2018 FCTS filing; Invenenergy Ex. 142C is the Feb. 2018 FCTS filing; and so forth consecutively through Invenenergy Ex. 142J (Sept. 2018 FCTS filing).

⁴⁰ March 28, 2019 Transcript (non-Confidential), p. 18, line 6 – p. 20, line 4.

⁴¹ March 28 Transcript (non-confidential), p. 5, line 19 – p. 13, line 6; *id.*, p. 20, line 5 – p. 21, line 2.

[REDACTED]

[REDACTED]

This was not a small or collateral matter. The ISO’s involuntary termination of Invenergy’s CSO – done after a careful ISO system reliability study showed no problems from Invenergy’s absence – may be the most probative piece of evidence before the EFSB that Invenergy is not needed. The fact that Invenergy’s Project Manager John Niland was incapable of testifying truthfully about that termination speaks volumes about Invenergy’s fitness to build a 1,000 MW fossil fuel power plant.

Moreover, it is not just recent events – like the CSO termination – that demonstrate that the ISO has no need for Invenergy. In every ISO-run FCA since this Docket was opened, the ISO procured a substantial excess of capacity without capacity from Invenergy’s proposed plant. This is further, very strong evidence that Invenergy is not needed.

Since Invenergy filed its application on October 29, 2015, the ISO has conducted four annual FCAs:

- FCA-10 was conducted in February 2016 for the Capacity Commitment Period (CCP)-10, which runs June 1, 2019 to May 31, 2020.
- FCA-11, conducted February 2017 for CCP-11, June 2020 to May 2021.
- FCA-12, conducted February 2018 for CCP-12, June 2021 to May 2022.
- FCA-13, conducted February 2019 for CCP-13, June 2022 to May 2023.

In each auction the Net Installed Capacity Requirement (net-ICR) is the amount that the ISO seeks to procure in order to keep the New England electricity grid safe and reliable. In each and

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every one of the four auctions conducted by the ISO since this Docket was opened, actual auction results showed two important facts:

- The ISO had vastly more megawatts of Resources competing for a CSO than its net-ICR; and
- The ISO actually cleared more megawatts beyond its net-ICR than Invenergy's entire project.

These data, shown on the chart on the following page, are powerful evidence that Invenergy is not needed.

FCA-13, the most recently conducted FCA, is an exemplar. FCA-13 was conducted on Monday, February 4, 2019, toward the end of the Final Hearing in this case. Of course, the ISO had prohibited Invenergy from even taking part in FCA-13.⁷⁴ The net-ICR for FCA-13 (the amount that the ISO was seeking to procure) was 33,750 MW. Merely from existing Resources already on the system, the ISO had more megawatts available than the entire net-ICR; the ISO had 34,925 MW of existing Resources. And that wasn't even counting 238 newly qualified Resources, totaling yet an additional 8,716 MW.⁷⁵

In all, in the most recently conducted auction (FCA-13), the ISO had a total of 43,641 MW (34,925 MW existing + 8,716 MW newly qualified = 43,641 MW) competing for CSOs when the net-ICR was only 33,750 MW. When the auction was cleared, the ISO had obtained 34,839 MW – that is, 1,089 MW beyond the net-ICR. That is more extra megawatts in the last auction than Invenergy's entire project (that is, both turbines).

And an additional 8,802 MW that were qualified did not even get CSOs.

And all of that was with no participation from Invenergy whatever.

CLF's expert witness, Robert Fagan, explained the situation this way in his prefiled testimony:

⁷⁴ On Sept. 20, 2018, the ISO terminated Invenergy's CSO on Turbine One. Invenergy Ex. 189. On Sept. 28, 2018, the ISO disqualified Invenergy's Turbine Two from participating in the auction. CLF Ex. 19.

⁷⁵ As to figures in this paragraph, see Board Administrative Notice Document 11 (ISO Press Release, Feb. 6, 2019), p. 1.

All of these separate data points must be viewed together in order to understand the broader picture.

- There is a current surplus of capacity in New England; while
- Peak load, which drives future demand, is declining; while
- The pace of retirements shows no need for new power plants; and
- Large procurements of new renewables are coming into the New England electricity marketplace.⁷⁶

Mr. Fagan testified that many of the new resources that have entered the ISO market since 2015 involve large procurements of renewable energy including Canadian hydropower; offshore wind in Massachusetts, Rhode Island, and Connecticut; and new battery storage both in Massachusetts and on the broader ISO system.⁷⁷

In addition, Mr. Fagan explained that many of the new resources that have entered the ISO market since 2015 include conventional, fossil-fuel power plants such as the 848 MW Bridgeport Harbor 5 plant, the 333 MW Canal 3 plant, and the 195 MW West Medway plant.⁷⁸ All of these decrease any supposed, putative need for Invenenergy.

Mr. Fagan explained that the rate of retirement of existing so-called “at risk” power plants in the ISO system does not create a need for Invenenergy’s proposed power plant.⁷⁹ As one example of this, Mr. Fagan testified that recent actions taken by the ISO and approved by FERC mean that Mystic Units 8 and 9 will continue to provide capacity (and electricity) to the ISO through 2025.⁸⁰

Mr. Fagan testified that, as to SENE being modelled as an import-constrained zone, in all of FCA-10 (held in February 2016), FCA-11 (held in February 2017), and FCA-12 (held in

⁷⁶ CLF Ex. 15, p. 4.

⁷⁷ CLF Ex. 15, p. 9-11; Jan. 17, 2019 Transcript, p. 53, line 5 – p. 54, line 22 (explaining, in response to question from Director Coit, state policies to obtain additional Canadian hydropower, offshore wind, and battery storage).

⁷⁸ CLF Ex. 15, p. 2. See also Jan. 30 Transcript, p. 35, line 3 – p. 36, line 9.

⁷⁹ See, generally, CLF Ex. 4, p. 11, line 2 -16, line 8 (including Table 2 on page 14 showing every so-called “at-risk” plant); CLF Ex. 4, p. 28, line 9 – 33, line 14; CLF Ex. 21, at 9 (accounting for updated ISO data).

⁸⁰ CLF Ex. 15, p. 8-9 (reflecting that Mystic 8 and 9 will not be retiring and providing links to the underlying ISO and FERC documents).

ACTUAL AUCTION RESULTS SHOW HUGE SURPLUSES WITHOUT INVENERGY

AUCTION	NET-ICR	QUALIFIED CAPACITY	SURPLUS OF CAPACITY OVER NET-ICR	CAPACITY CLEARED	SURPLUS CLEARED OVER NET-ICR	COMMENTS
FCA-10 Feb. 2016 ⁸¹	34,151 MW	40,131 MW	5,980 MW	35,567 MW	1,416 MW	Invenergy's urban wo fa s to clear. Surplus of 1,416 MW s arger than Invenergy's ent re project.
FCA-11 Feb. 2017 ⁸²	34,075 MW	40,463 MW	6,388 MW Surplus Grows from Pr or Year	35,835 MW	1,760 MW	urban wo aga n fa s to clear. Surplus of 1,760 MW s arger than Invenergy's ent re project.
FCA-12 Feb. 2018 ⁸³	33,725 MW	40,612 MW	6,887 MW Surplus Grows from Pr or Year	34,828 MW	1,103 MW	ISO dsqua fes urban wo. Surplus = 1,103 MW
FCA-13 Feb. 2019 ⁸⁴	33,750 MW	43,641 MW	9,891 MW Surplus Grows from Pr or Year	34,839 MW	1,089 MW	CSO on urban One d scont nued. Both turb nes dsqua fed. Surplus rema ns arger than Invenergy's ent re project.

⁸¹ All figures for FCA-10 appear in CLF Ex. 23.

⁸² CLF Ex. 24.

⁸³ CLF Ex. 25.

⁸⁴ EFSB Administrative Notice Document 11.

February 2018) these potential constraints were not “binding.” That means that the ISO was able to obtain sufficient capacity within the zone to meet its so-called “Local Sourcing Requirement,” and there was no price separation between the SENE zone and the Rest of Pool.⁸⁵ The same thing is true for FCA-13 (conducted February 2019): that is, the potential import constraints in the SENE zone proved not to be binding; sufficient capacity was procured within the SENE zone (with no contribution from Invenergy).⁸⁶

All of the foregoing facts lead to the inescapable conclusion that there is no need for Invenergy’s proposed plant. And under the EFSA, under the EFSB Rules, and pursuant to the EFSB’s Preliminary Decision and Order in this case, the EFSB cannot issue a permit for the plant if there is no need.

Of course, one does not need to rely solely on CLF’s witness, Mr. Fagan, to reach the conclusion that there is no need for Invenergy. The testimony of Invenergy’s expert witness, Ryan Hardy, leads inexorably to the same conclusion – that there is no need for Invenergy. Mr. Hardy conceded on cross-examination the fact that capacity supply is increasing while energy demand is decreasing⁸⁷ – thereby directly confirming Mr. Fagan’s central thesis as to why there is no need for Invenergy.

Equally important, Mr. Hardy testified at length about the meaning of FCA clearing prices – specifically, that high FCA clearing prices show demand for new Resources, and low FCA clearing prices show lack of demand for new build. Mr. Hardy called this “the market working as it was meant to work.”⁸⁸ Since this Docket was opened, there has been a steep and consistent decline in FCA clearing prices. Mr. Hardy confirmed that this decline of FCA

⁸⁵ CLF Ex. 4, p. 8, lines 4 – 9; Jan. 17 Transcript, p. 11, lines 1 – 19 (explaining the difference between a zone being modeled as potentially import-constrained and actually having the constraints bind in an auction).

⁸⁶ Board Administrative Notice Document 11 (ISO Press Release Feb. 6, 2019).

⁸⁷ Jan. 16, 2019 Transcript, p. 112, line 23 – p. 113, line 10 (Explaining decreasing capacity prices as follows: “Part of it is supply is increasing and part of it is that demand has decreased.”).

⁸⁸ Jan. 8 Transcript, p. 41, line 24 – p. 42, line 7. See also Jan. 16, 2019 Transcript, p. 22, line 17 – p. 25, line 15; id., p. 112, line 23 – 113, line 10.

clearing prices reflects the large surplus of supply over demand in New England.⁸⁹ And Mr. Hardy further confirmed that all of the data on CLF's chart showing FCA trends over time, which CLF distributed during the Final Hearing, were correct.⁹⁰

For reference, CLF includes this chart on the following page.⁹¹

Perhaps the most damning fact in evidence is this: in the entire history of the ISO, this is the first time that the ISO has ever involuntarily terminated the entire CSO of any Resource – and, in this case, the ISO only took that action after a careful system reliability study was done showing no risk to the New England electricity grid with no contribution whatever – present or future – from Invenenergy.

The large number of ISO documents in evidence⁹² tell a consistent story:

- In every FCA since this Docket was opened, ISO cleared a surplus (beyond net-ICR) of more megawatts than Invenenergy's entire project.
- In every FCA since this Docket was opened, the ISO had thousands of megawatts competing – beyond what actually cleared – that did not even get a CSO.
- Mr. Hardy was correct that the sharply declining auction clearing price is “the market working as it was meant to work.”

These ISO data tell a simple, yet compelling, story: Invenenergy is not needed, because there is a surplus of capacity in New England without Invenenergy.

B. Invenenergy's Overly Optimistic Predictions About Need Have Been Wrong, Wrong, Wrong (and Also Not Credible)

As shown above, there are several areas where the testimony of Invenenergy's witness on need (Mr. Hardy) substantially agrees with the testimony of CLF's and Burrillville's witnesses on need (Mssrs. Fagan and Walker): capacity is up; demand is down; the balance of supply and

⁸⁹ Jan. 16, 2019 Transcript, p. 22, line 17 – p. 25, line 15; *id.*, p. 112, line 23 – p. 113, line 10.

⁹⁰ Jan. 8, 2019 Transcript, p. 39, line 7 – p. 41, line 23.

⁹¹ The chart has been updated to include the results of FCA-13, conducted in February 2019. Board Administrative Notice Document 11 (ISO Press Release Feb. 6, 2019).

⁹² *See, e.g.*, CLF Ex. 4 (Aug. 7, 2017 Fagan Testimony), Tabs 2 – 7; CLF Ex. 14 (Feb. 23, 2018 Fagan Testimony), Tabs A – D; CLF Exs. 23, 24, 25; Invenenergy Ex. 155 (ISO Press Release); Invenenergy Ex. 182A (ISO Thermal Plants by Operating Status); Invenenergy Ex. 202 (ISO Regional System Plan dated Jan. 23, 2019).

RYAN HARDY'S METRIC

The Forward Capacity Auction (FCA) Clearing Price

	2014 FCA-8 Invenergy Conceived	2015 FCA-9 Invenergy Application Filed	2016 FCA-10 Invenergy in Auction	2017 FCA-11 Invenergy Fails to Clear	2018 FCA-12 Invenergy Disqualified	2019 FCA-13 Invenergy Disqualified
FCA Clearing Price (\$/kW-month)	\$15.00	\$17.73 Highest Ever	\$7.03	\$5.30	\$4.63	\$3.80
Year-Over- Year Change			61%  No Price Separation	24%  No Price Separation	12.6%  No Price Separation	17.9%  No Price Separation

demand is reflected in sharply declining FCA clearing prices.

However, there are other areas in which the parties do not agree. When the EFSB evaluates critical data pertaining to whether the plant is needed, it must bear in mind that – despite Invenergy’s expensive and sophisticated modeling – Invenergy’s predictions have been wrong again and again and again.

Before FCA-10 (conducted February 2016), Invenergy predicted that both of its two turbines, 1,000 MW of capacity, would clear that auction. Invenergy’s prediction was wrong; only one turbine cleared, and Invenergy obtained a CSO of 485 MW.⁹³

Before FCA-11 (conducted February 2017), Invenergy confidently predicted that Invenergy’s Turbine Two would clear that auction and obtain a CSO. Invenergy was wrong again.⁹⁴

Before FCA-12 (conducted February 2018), Invenergy predicted that Invenergy’s Turbine Two would clear that auction and obtain a CSO. Invenergy was wrong again.⁹⁵ Indeed, Invenergy’s prefiled testimony asserting that its second turbine would clear FCA-12 was filed the very same month that the ISO disqualified Invenergy’s Turbine Two from participating in FCA-12.⁹⁶

Next, Invenergy predicted that Invenergy’s Turbine Two would clear FCA-13 (conducted February 2019). Another wrong prediction by Invenergy.⁹⁷ This time, the ISO took two separate actions well in advance of the auction: it both discontinued the CSO that Invenergy had previously procured for Turbine One; and it disqualified Invenergy’s Turbine Two from participating in FCA-13.⁹⁸

⁹³ Jan. 8, 2019 Transcript, p. 21, line 14 – p. 22, line 15.

⁹⁴ *Id.*, p. 22, line 17 – p. 25, line 10.

⁹⁵ *Id.*, p. 26, line 6 – p. 27, line 23.

⁹⁶ *Id.*

⁹⁷ *Id.*, p. 27, line 24 – p. 28, line 10; *id.*, p. 29, lines 13 – 23.

⁹⁸ Invenergy Ex. 189 (as to Turbine One); CLF Ex. 19 (as to Turbine Two).

Invenergy latest prediction – about FCA-14 to be held in February 2020 – lacks

credibility because it [REDACTED]

Invenergy ignored this evidence in its written, prefiled testimony. Invenergy's expert ignored this evidence during his cross-examination [REDACTED]

[REDACTED] Invenergy's failure to address this issue reflects a remarkable lack of candor.

Invenergy lost further credibility when its expert witness on need was unable to provide direct answers to simple questions that were properly answered by yes or no.¹⁰⁶ For example, when Mr. Hardy was asked a simple yes-or-no question about whether it was true that Invenergy would emit more carbon per megawatt-hour than the average of all generators on the ISO system, he evaded answering directly for 18 pages of transcript.¹⁰⁷ At one point counsel was forced to have the stenographer read back a pending question that Mr. Hardy had failed to answer.¹⁰⁸ At another point, Mr. Hardy had to be instructed by Director Coit that this was a yes-or-no question.¹⁰⁹ Eventually, Mr. Hardy acknowledged the fact that the Invenergy plant would emit more carbon per megawatt hour than the average plant on the ISO system.¹¹⁰

Invenergy's evasiveness took a remarkable turn when Mr. Hardy was asked about the ISO's termination of Invenergy's CSO. As noted above, Mr. Hardy conceded on cross-

¹⁰⁶ Jan. 8, 2019 Transcript, p. 22, line 16 – p. 23, line 15; Jan. 9 Transcript, p. 201, line 18 – p. 202, line 10; *id.*, p. 48, line 3 – p. 53, line 15 (as to the ISO's discretionary ability to terminate Invenergy's CSO); *id.*, p. 54, line 2 – p. 55, line 21 (as to ISO's view that termination of a CSO is reserved only for "the most egregious cases"); *id.*, p. 66, line 12 – p. 68, line 21 (as to the ISO's view that not terminating Invenergy's CSO would "have negative consequences for multiple aspects of system planning"); *id.*, p. 115, line 5 – p.119, line 16 (as to Invenergy's arbitrage profit on resale of its CSOs coming from ratepayers).

¹⁰⁷ Sept. 18, 2018 Transcript, p. 9, line 22 – p. 27, line 21.

¹⁰⁸ *Id.*, p. 24, lines 10 – 14.

¹⁰⁹ *Id.*, p. 11, lines 4 – 6.

¹¹⁰ *Id.*, p. 27, lines 11 – 20.

examination that this is the first time in history that the ISO has ever involuntarily terminated an entire CSO.¹¹¹ However, when asked immediately thereafter whether Invenergy’s lawyer’s statement “that that had happened 66 different times in the history of the ISO” was false, Mr. Hardy’s full answer was “I don’t know.”¹¹² Mr. Hardy was asked again, and repeated the same evasive answer a second time.¹¹³

Invenergy’s argument that its proposed plant is needed has been consistently based on Invenergy’s predictions about ISO auction outcomes. Since this Docket was opened, the ISO has conducted four FCAs – and Invenergy’s prediction about each one has been wrong, wrong, wrong, and wrong (respectively). When not wrong, Invenergy has been evasive. The short of it is that Invenergy has failed to meet its burden to show that its plant is needed.

**IV. EVEN IF THE PLANT WERE NEEDED, WHICH IT IS NOT,
BUILDING THE PLANT WOULD PREVENT RHODE ISLAND FROM MEETING ITS
CARBON EMISSION REDUCTION GOALS.
THUS, THE PLANT CANNOT BE PERMITTED**

The second statutory prong that Invenergy must satisfy in order to obtain a permit is that “the proposed facility will not cause unacceptable harm to the environment.”¹¹⁴ Invenergy’s witness, John Niland, acknowledged that Invenergy could have an effective life of 30 years, ensuring that it would still be emitting carbon well after 2050.¹¹⁵ Indeed, on cross-examination, Mr. Niland admitted that the plant could well be in operation for 40 years, and still emitting carbon pollution well after 2060!¹¹⁶ Carbon emissions constitute one of the most devastating environmental consequences that would occur if this plant were permitted and built. When considering carbon emissions and climate impacts, the EFSB must consider both short- and long-

¹¹¹ Jan. 8, 2019 Transcript, p. 122, lines 14 -21.

¹¹² *Id.*, p. 123, lines 13 – 16.

¹¹³ *Id.*, p. 123, lines 17 – 19.

¹¹⁴ R. I. Gen. Laws § 42-98-11(b)(3).

¹¹⁵ April 2, 2019 Transcript, p. 59, line 2 – p. 60, line 3.

¹¹⁶ *Id.*

range impacts.

The Resilient Rhode Island Act, enacted in 2014, announced that it is the public policy of Rhode Island to reduce statewide carbon emissions by 10% below 1990 levels by 2020, 45% by 2035, and 80% by 2040.¹¹⁷ The Resilient Rhode Island Act sets a standard that, although not mandatory, respectfully, ought to be applied by the EFSB. The Resilient Rhode Island Act expressly empowers all state agencies and boards, including the EFSB, to implement this ambitious carbon emission reduction agenda.¹¹⁸

It is undisputed that Invenergy's proposed plant would burn natural gas and diesel oil, and will emit carbon¹¹⁹ for a very long time.

There was, however, a difference in the respective experts' testimony as to whether or not building this plant will raise or lower carbon emissions. Invenergy's witness, Mr. Hardy, consistently testified that, if built, Invenergy's proposed plant would lower carbon emissions slightly for the combined area of the six New England states and New York.¹²⁰ CLF's witness, Dr. Timmons Roberts, testified that building Invenergy's proposed plant would increase, not decrease, Rhode Island's carbon emissions and "would make it impossible for the state to achieve the carbon emission reduction goals as set forth in the Resilient Rhode Island Act."¹²¹

Although the Rhode Island Office of Energy Resources (OER) endorsed the use of consumption-

¹¹⁷ R. I. Gen. Laws § 42-6.2-2(a)(2).

¹¹⁸ R. I. Gen. Laws § 42-6.2-8. Moreover, the EFSB, at an Open Meeting held on Jan. 29, 2016, considered and denied a motion by CLF to conduct a formal rulemaking to ensure compliance with the Resilient Rhode Island Act. In explaining that denial both of the two EFSB members then sitting stated on the Record, that – even without a formal rulemaking – consideration of the Resilient Rhode Island Act would be a part of the EFSB's consideration of and decision on Invenergy's application. Jan. 29, 2016 Transcript, p. 53 (as to Chairperson Curran); *id.*, at p. 54 (as to Director Coit).

¹¹⁹ Invenergy Ex. 1A (original application), p. 1 (as to gas and oil fuels); p. 29 (as to carbon emissions).

¹²⁰ Invenergy Ex. 36, p. 21, lines 17 – 22. However, Mr. Hardy's predictions as to what the carbon emission reduction for this seven-state area would be changed several times, declining in each subsequent iteration. Sept. 18, 2018 Transcript, p. 79, line 5 – p. 84, line 3. First, Mr. Hardy testified that the average annual reduction of carbon emissions over the seven-state area would be 1.01%. Invenergy Ex. 36, p. 3, lines 17 – 18; Sept. 18, 2018 Transcript, p. 79, lines 5 – 15. Later, Mr. Hardy testified that the average annual reduction of carbon emissions over the seven-state area would be 0.95%. Invenergy Ex. 36, p. 5, lines 13 – 14; Sept. 18, 2018 Transcript, p. 82, lines 1 – 7. Still later, Mr. Hardy's estimate dropped further to 0.89% reduction. Invenergy Ex. 37B (Hardy Supplemental Testimony, Nov. 20, 2017), p. 5; Sept. 18, 2018 Transcript, p. 83, line 14 – p. 84, line 3.

¹²¹ CLF Ex. 1, p. 14, lines 7 -8.

based accounting in this case,¹²² OER's State Energy Guide Plan, published on October 8, 2015, a few days before this Docket was opened, used production-based accounting, just as Dr. Roberts did.¹²³

Invenergy and CLF agree that the different results described by the two expert witnesses are attributable to their respective decisions to use different accounting methods. Mr. Hardy used consumption-based accounting; Dr. Roberts used production-based accounting.¹²⁴

Production based accounting looks only at emissions produced and emitted within the geographical area of the state.¹²⁵ Using production-based accounting, building Invenergy would cause Rhode Island emissions to rise because the plant is to be located in the state.¹²⁶ In contrast, consumption-based accounting looks at the six-state ISO footprint, calculates the aggregate of all emissions from all generators within the footprint, and assigns 6.11% of those emissions to Rhode Island, because Rhode Island consumes 6.11% of the ISO's power output. Using consumption-based accounting, building Invenergy could cause a slight drop in emissions if the presence of Invenergy backed off (curtailed) the use of other, less-efficient plants.¹²⁷

There are two reasons why the EFSB ought to use production-based accounting in this case. First, Massachusetts uses production-based accounting in connection with the state's Global Warming Solutions Act, a rough analogue to Rhode Island's Resilient Rhode Island Act.¹²⁸ Rhode Island should do so as well. In fact, Rhode Island did use production-based accounting until this case.

¹²² OER Ex. 1 (Ellen Cool Testimony), p. 6, line 5 – p. 7, line 4

¹²³ CLF Ex. 17 (Energy Guide Plan); Sept. 20, 2018 Transcript, p. 209, line 5 – p. 210, line 21 (as to use of production-based accounting).

¹²⁴ Sept. 18, 2018 Transcript, p. 31, line 20 – p. 32, line 23 (testimony of Mr. Hardy).

¹²⁵ *Id.*, p. 35, line 19 – p. 36, line 8.

¹²⁶ CLF Ex. 6 (Timmons Roberts's Rebuttal), p. 1, line 17 – p. 6, line 9.

¹²⁷ Sept. 18, 2018 Transcript, p. 36, line 9 – p. 42, line 22; Sept. 20, 2018 Transcript, p. 210, lines 3-21.

¹²⁸ Board Administrative Notice Document 9 (310 Mass. Code of Regulations 7.74).

Second, as noted above, on cross-examination (and after much evasion), Mr. Hardy conceded that, if built, the Invenenergy plant would emit more carbon per megawatt-hour of electricity produced than the weighted average of all plants on the ISO system.¹²⁹ This is important because, as OER's expert witness, Dr. Ellen G. Cool, testified, as time goes on, the New England generating fleet is getting cleaner as more renewables come onto the system.¹³⁰ Thus the difference between Invenenergy's (higher) emissions and the average emissions for the New England fleet will increase over time. To put the same point another way, even if one used consumption-based accounting and believed that Invenenergy would have a slight carbon advantage today, that advantage will soon disappear as the fleet of New England generators gets cleaner and cleaner.

For these two reasons, CLF urges the EFSB to use production-based accounting in this case. However, even if the EFSB does not use production-based accounting, there is an important reason that the EFSB must disregard Invenenergy's testimony pertaining to carbon emissions: the testimony of Invenenergy's witness on carbon emissions is fatally flawed because it failed to account for the offer-price mitigation role of the ISO's IMM. The offer-price mitigation role of the IMM became important when Invenenergy lost its CSO, but Mr. Hardy conceded on cross-examination that he was not familiar with the offer-price mitigation role of the ISO's IMM.¹³¹

In his first set of prefiled testimony, Mr. Hardy stated that the so-called "Must Offer Rule" in the ISO's Tariff would apply to Invenenergy because Invenenergy had obtained a CSO from the ISO. Mr. Hardy explained that the Must Offer Rule is found in the ISO Tariff at Section III.13.6.1.1.1.¹³² Invenenergy argued that this meant that the plant, with its CSO, would have to

¹²⁹ Sept. 18, 2018 Transcript, p. 26, line 21 – p. 27, line 18.

¹³⁰ OER Ex. 1, p. 24, line 11 – p. 25, line 5; Sept. 18, 2018 Transcript, p. 125, line line 6 – p. 027, line 7; id., p. 132, line 1 – p. 134, line 3.

¹³¹ Jan. 8, 2019 Transcript, p. 123, line 19 – p. 124, line 15.

¹³² Invenenergy Ex. 36, at 8, lines 11 – 20.

offer its capacity into the energy market every one of the 8,760 hours of the year, and would therefore be running most hours of the year.¹³³ Accordingly, Mr. Hardy’s original estimate of carbon impacts from Invenergy were based on the plant operating essentially all the time.

When Invenergy lost its CSO, the Must Offer Rule ceased to apply to Invenergy – as even Invenergy’s witness conceded.¹³⁴ In response to questions from Director Coit, Mr. Hardy explained the distinction this way: a Resource with a CSO is obligated to offer energy into the market every hour of the year; a Resource without a CSO is not obligated to offer energy every hour, but would offer energy only when it is economic to do so.¹³⁵ Invenergy’s witness stated that his analysis showed that, without a CSO, Invenergy would deem it economic to operate approximately 60 – 65% of the time.¹³⁶ Importantly, he testified that this 60 – 65% figure was the basis of his air emissions analysis.¹³⁷

However, because Invenergy’s witness just did not know about the offer-price mitigation role of the IMM, he failed to take that important fact into account in his calculation of how many hours per year Invenergy would find it economic to run in the absence of having a CSO. The IMM can “mitigate” – that is, lower – the energy price offers of Resources in order to prevent market manipulation.¹³⁸ This lowering (by the IMM) of the amount of money Invenergy might get paid when running would vastly reduce the number of hours that Invenergy would find it economic to run in the absence of a CSO.

When the offer-price mitigation role of the ISO’s IMM is taken into account, a power plant like Invenergy would only be economic to run 10 – 15% of the hours of the year, not the 60

¹³³ Jan. 9, 2019 Transcript, p. 101, lines 8 – 11.

¹³⁴ Id., p. 168, line 21 – p. 160, line 16.

¹³⁵ Id., p. 171, line 17 – p. 173, line 11. (See also Testimony of Glenn Walker, Jan. 23, 2019 Transcript, p. 76, line 23 – p. 77, line 6.)

¹³⁶ Jan. 9, 2019 Transcript, p. 101, lines 8 -22.

¹³⁷ Id.

¹³⁸ Jan. 23, 2019 Transcript, p. 78, lines 12 – 21.

– 65% of the hours of the year that Invenergy mistakenly believed.¹³⁹ In other words, Invenergy’s entire air-emissions testimony was based on the incorrect assumption that, even without a CSO, Invenergy would be operating 60 -65% of the hours in the year. Invenergy made its incorrect assumption because its expert was not familiar with, and did not account for, the offer-price mitigation role of the ISO’s IMM.¹⁴⁰

Invenergy does not have a CSO today on either of its two proposed turbines, and it is unlikely that Invenergy will be able to obtain a CSO in the future.¹⁴¹ Thus, there is insufficient evidence in the Record to support Invenergy’s testimony on putative air emissions, including (but not limited to) carbon emissions. Invenergy’s testimony on air emissions, including carbon emissions, is fatally flawed and must be rejected by the EFSB.

Climate change is an emergency. Permitting a plant that will belch carbon pollution into the atmosphere for decades – well beyond 2050 – is morally wrong and is legally impermissible because it would constitute unacceptable environmental harm. Thus, even if the Invenergy plant were needed – which it clearly is not – the carbon pollution from the plant would constitute unacceptable environmental harm sufficient to deny Invenergy a permit.

**V. EVEN IF THE PLANT WERE NEEDED,
BUILDING THE PLANT WOULD CAUSE UNACCEPTABLE
ENVIRONMENTAL HARMS DUE TO THE UNIQUELY
SENSITIVE AND VALUABLE LOCATION OF THE PROPOSED FACILITY**

Carbon emissions are not the only harmful environmental impacts that would result from building this proposed plant. In discussing the imperative of avoiding environmental harm to Rhode Island, the EFSA directs the EFSB to consider “most particularly its land and its wildlife and resources . . . and its esthetic and recreational value to the public.”¹⁴² “In the Board’s

¹³⁹ Id., p. 78, line 22 – p. 80, line 11.

¹⁴⁰ See, generally, Jan. 23, 2019 Transcript, p. 75, line 11 – p.80, line 11.

¹⁴¹ Jan. 23, 2019 Transcript, p. 80, lines 12 – 20.

¹⁴² R.I. Gen. Laws § 42-98-2(3).

consideration of this issue, it construes the term “environment” broadly”¹⁴³

To address the non-carbon environmental issues, the parties and DEM witnesses addressed species habitat, forest connectivity, resilience, and biodiversity. Invenergy’s expert witness on these issues was Jason Ringler, of ESS Group.¹⁴⁴ CLF’s expert witness on these issues was Scott Comings, of The Nature Conservancy (TNC).¹⁴⁵ DEM’s witness was Jay Osenkowski.¹⁴⁶ Burrillville’s expert witness was Anthony Zemba.¹⁴⁷ Taken together, the testimony of these witnesses – along with the two DEM Advisory Opinions – show the following: (a) the proposed site is a uniquely bad place to locate a power plant; (b) building this plant would cause unacceptable environmental harm; (c) Invenergy’s witness, Mr. Ringler, badly misunderstood the data that he worked from; and (d) Invenergy’s proposed mitigation parcel would not undo the harm from building this plant. This section of CLF’s brief also cites important portions of DEM’s two Advisory Opinions.

Uniquely Bad Location – CLF’s witness Mr. Comings testified that – in terms of forest connectivity, forest fragmentation, and biodiversity – this is a uniquely bad place to locate a new power plant looking at the entire Northeast, from Maine to Washington, D.C.¹⁴⁸ In drawing this conclusion, Mr. Comings referenced an October 1997 study by TNC that preceded this litigation by decades.¹⁴⁹

¹⁴³ Id.

¹⁴⁴ Mr. Ringler’s prefiled direct testimony was Invenergy Ex. 69 (July 3, 2017); his Rebuttal Testimony is Invenergy Ex. 70 (September 1, 2017). Mr. Ringler appeared for cross-examination at the Final Hearing on Jan. 30 and 31, 2019.

¹⁴⁵ Mr. Comings’s prefiled direct testimony was CLF Ex. 2 (September 22, 2016); his Rebuttal Testimony is CLF Ex. 7 (September 25, 2017). Mr. Comings appeared for cross-examination at the Final Hearing on Feb. 7, 2019.

¹⁴⁶ Mr. Osenkowski testified on March 26, 2019. March 26, 2019 Transcript, p. 4, line 15 – p. 188, line 3.

¹⁴⁷ Mr. Zemba’s prefiled direct testimony was Burrillville Ex. 15 (Aug. 7, 2017); his surrebuttal testimony was Burrillville Ex. 16 (Sept. 27, 2017). Mr. Zemba appeared for cross-examination at the Final Hearing on March 20, 2019.

¹⁴⁸ CLF Ex. 7 (Comings Testimony), p. 8, line 22 – p. 9, line 5 (“I place the [Invenergy] site in context, looking at . . . the coast from Washington, D.C. all the way to Boston, and highlighting how western Rhode Island is one of the few remaining pockets of unfragmented habitat in the northeast coastal United States. . . I conclude that . . . the proposed power plant would cause unacceptable harm to the environment.”)

¹⁴⁹ CLF Ex. 7 (Comings Testimony), p. 7, lines 12-4; CLF Ex. 7, Tab C (full text of 1997 study).

Significantly, one of the witnesses provided by DEM, Jay Osenkowski, stated that he was familiar with Mr. Comings's testimony, had been present for Mr. Comings's cross-examination, and agreed completely with all of Mr. Comings's testimony, including Mr. Comings's expert opinion that this is a uniquely bad location to build a power plant.¹⁵⁰ Indeed, Mr. Osenkowski testified that the proposed site of the Invenergy plant is so valuable that DEM had identified the site as early as 1996, and that in 2009 DEM had tried unsuccessfully to purchase the property, in order to protect it in perpetuity.¹⁵¹ Like the TNC study of this unique parcel, DEM's attention to this parcel – and its attempt to save the parcel from development – preceded Invenergy's proposal by decades. Mr. Osenkowski may be uniquely credible as a witness, as he appeared on behalf of DEM, not on behalf of any party.

The DEM Advisory Opinion states: “The value of the interior forest in the northwest corner of Rhode Island has been known to DEM for decades. Large, undeveloped tracts of land and corridors to connect those tracts of land are vital to the conservation of biodiversity. Fish and wildlife rely on habitat connectivity to find scarce resources, preserve gene flow and locate alternatives to lost habitat.”¹⁵²

On the uniqueness of the site of the proposed power plant, Burrillville's expert witness, Mr. Zemba, testified that he has rarely in his career spanning 30 years ever seen a single site that has as many species of concern as this site contains.¹⁵³

¹⁵⁰ March 26, 2019 Transcript, p. 32, line 15 – p. 33, line 1; id., p. 170, line 16 – p. 171, line 5.

¹⁵¹ March 26, 2019 Transcript, p. 95, lines 10-23 (as to identification in 1996); id., p. 30, line 2 – p. 31, line 5 (as to attempt to purchase); Invenergy Ex. 219 (DEM email, as to DEM's attempt to purchase). See, generally, March 26, 2019 Transcript, p. 52, line 20 – p. 54, line 6.

¹⁵² Board Exhibit 1A, p. 10. For further discussion on this point, see, generally, March 26, 2019 Transcript, p. 11, line 10 – p. 14, line 7.

¹⁵³ March 20, 2019 Transcript, p. 77, line 1 – p. 78, line 9.

Unacceptable Environmental Harm – In response to a question from Chairperson Curran, Mr. Osenkowski specifically stated that building the proposed plant in this location would cause unacceptable harm to the environment.¹⁵⁴ If the EFSB credits Mr. Osenkowski’s testimony in this regard, then that testimony is dispositive of the issue before the EFSB. Simply put, under the EFSA, the EFSB cannot grant a permit to Invenergy where, as here, doing so would cause unacceptable environmental harm.

Mr. Comings testified that building a power plant at the site proposed would cause unacceptable harm to the environment.¹⁵⁵ Mr. Comings emphasized the importance of regional connectedness in considering issues pertaining to forest and habitat connectivity.¹⁵⁶ He also addressed issues of local connectedness in his analysis of forest and habitat connectivity.¹⁵⁷ Mr. Comings explained that the site of the proposed power plant is exactly at a so-called “pinch point” for forest and habitat connectivity, and that building a plant in this highly sensitive pinch point would have serious negative consequences for forest and habitat connectivity.¹⁵⁸

Upon cross-examination, Mr. Comings testified that the following statement was the “essence” of his testimony: “I agree with DEM and submit that the only scientific conclusion on the question of habitat connectivity is that the proposed power plant would cause unacceptable harm to the environment by destroying a wildlife corridor that is key to ecological flow locally and even regionally.”¹⁵⁹

¹⁵⁴ March 26, 2019 Transcript, p. 178, line 4 – p. 179, line 3.

¹⁵⁵ CLF Ex. 2, p. 8, lines 6-14; CLF Ex. 7, p. 2, lines 1-4; Feb. 7, 2019 Transcript, p. 35, lines 14 -16.

¹⁵⁶ CLF Ex. 2, p. 29, lines 4-15; CLF Ex. 7, at p. 16, line 10 – p. 17, line 3; Feb. 7, 2019 Transcript, p.16, line 24 – p. 18, line 14.

¹⁵⁷ CLF Ex. 2, p. 28, line 22 – p. 29, line 3; CLF Ex. 7, p. 7, lines 4-15; id., p. 12, lines 5-12; Feb. 7 2019 Transcript, p. 138, line 14 – p. 139, line 13.

¹⁵⁸ CLF Ex. 2, p. 21, line 15 – p. 28, line 8 (including Figure 3 at p. 22; Figure 4 p. 24; Figure 5 p. 25; and Figure 6 p. 26); CLF Ex. 7, p. 9 (Figure 1) and 10 (Figure 2); Jan. 23, 2019 Transcript, p. 16, line 17 – p. 18, line 5.

¹⁵⁹ Feb. 7, 2019 Transcript, p. 137, line 19 – p. 138, line 13.

These are among the important consequences of building this plant that Mr. Comings highlighted in his testimony:

- “Siting the proposed Invenergy power plant in this critical connecting corridor within this regionally significant forest landscape would undermine decades of coordinated conservation strategies and result in unacceptable harm to the environment.”¹⁶⁰
- “The creation of impervious surfaces, noise, light pollution, wetland destruction, deforestation and other effects of the proposed power plant would break up this currently unfragmented habitat and eliminate an irreplaceable wildlife corridor.”¹⁶¹
- In the context of our changing climate, the proposed power plant would cut off the unique connectivity of habitat that is essential to allow ecological system to function and adapt.”¹⁶²

Importantly, both of DEM’s two Advisory Opinions¹⁶³ and Burrillville’s witness Mr. Zemba, corroborate Mr. Comings’s testimony. Even Invenergy conceded that construction of the proposed plant could cause “substantial loss of habitat, fragment large habitat blocks, and create barriers to animal movement, particularly where no such barriers currently exist.”¹⁶⁴

Mr. Ringler’s Mistakes – Certain differences in the testimony of Mr. Ringler (for Invenergy) and Mr. Comings (for CLF) are both revealing and important to the outcome of the case.¹⁶⁵ For example, Mr. Ringler testified that an existing road near the site of the proposed power plant already interfered with forest and habitat connectivity so that the addition of the new power plant would not do substantial harm.¹⁶⁶ Specifically, Mr. Ringler testified that Mr. Comings had not properly taken account of existing blockages caused by the existing road.¹⁶⁷

Mr. Ringler was badly mistaken.

Mr. Comings explained that he had properly accounted for the presence of existing roads in his prefiled testimony.¹⁶⁸

¹⁶⁰ CLF Ex. 2, p. 31, lines 6-8.

¹⁶¹ Id., lines 9-11.

¹⁶² Id., lines 12-13.

¹⁶³ Board Exs. 1A and 1B.

¹⁶⁴ CLF Ex. 2, p. 29, lines 16-19 and footnote 4.

¹⁶⁵ Jan. 31 Transcript, p. 178, line 13 – p. 187, line 13.

¹⁶⁶ Invenergy Ex. 210, Map 6; Jan. 31, 2019 Transcript, p.182, lines 16-23; id., at p. 184, lines 19-21.

¹⁶⁷ Jan. 31, 2019 Transcript, p. 182, line 23 – p. 184, line 14.

¹⁶⁸ Feb. 7, 2019 Transcript p. 18, line 6 – p. 19, line 20; id., p. 26, line 4 – p. 27, line 18; CLF Ex. 7, p. 9 (Figure 1, showing existence of roads); at 10 (Figure 2, showing existence of roads).

Both witnesses, Mr. Ringler and Mr. Comings, used data originating with TNC.¹⁶⁹

However, Mr. Comings testified that Mr. Ringler had misunderstood the underlying TNC data upon which the testimony of both witnesses substantially relied.¹⁷⁰ Mr. Comings described multiple specific ways in which Mr. Ringler had misunderstood the underlying TNC data.¹⁷¹

Moreover, Mr. Ringler had not been honest when he contacted TNC for information. He misrepresented his interest as being for “screening a potential property for preservation.”¹⁷² And that was only one of Mr. Ringler’s multiple mistakes. These are others:

- TNC told Mr. Ringler that TNC information he was using to try to show that there was not a problem with Invenergy’s proposed location was a “quick and dirty analysis,” but Mr. Ringler ignored the warning.¹⁷³
- TNC told Mr. Ringler that TNC information he was using to try to show that there was not a problem with Invenergy’s proposed location had not been peer reviewed, but Mr. Ringler again ignored the warning.¹⁷⁴
- TNC told Mr. Ringler that TNC information he was using to try to show that there was not a problem with Invenergy’s proposed location should therefore not be used in connection with “major decisions;” once again, Mr. Ringler ignored the warning.¹⁷⁵

The Mitigation Parcel – Nor would Invenergy’s so-called “mitigation parcel” offset the damage that would inevitably be caused by building a fossil-fuel power plant in this uniquely valuable location. Three separate witnesses, including the DEM witness, all testified that Invenergy’s “mitigation parcel” would not be able offset the damage done by Invenergy:

¹⁶⁹ CLF Ex. 2, at 7, lines 12-24 (as to CLF); Jan. 31, 2019 Transcript, p. 178, line 13 – p. 187, line 13 (as to Invenergy).

¹⁷⁰ Feb. 7, 2019 Transcript, p. 28, line 17 – p. 29, line 22.

¹⁷¹ See, generally, Feb. 7, 2019 Transcript, p. 7, line 10 – p. 20, line 6

¹⁷² Id., p. 10, line 17 – p. 14, line 1.

¹⁷³ Id., p. 14, line 23 – p. 15, line 3.

¹⁷⁴ Id., p. 15, lines 4 -7.

¹⁷⁵ Id., p. 15, lines 16 – 20.

- Mr. Comings testified that the so-called “mitigation parcel” proposed by Invenergy would not offset the harm that would be done by this power plant.¹⁷⁶
- Mr. Zemba, agreed that Invenergy’s proposed mitigation parcel would not adequately offset the ecological harm that would be caused by building the plant.¹⁷⁷
- Mr. Osenkowski expressed similar concerns that mitigation may not be possible.¹⁷⁸ Again, DEM’s witness may be uniquely credible, as he did not speak on behalf of any party.

Mr. Comings explained that the reason that Invenergy’s mitigation parcel would not offset the damage done by the power plant was because the site of the proposed plant was in a uniquely important pinch point location.¹⁷⁹

In response to a question from Director Coit, Mr. Zemba testified that the fact that the proposed site is geographically close to the existing Spectra Gas facility would not make the proposed Invenergy site more suitable for development because of the unique attributes of this site.¹⁸⁰ In response to a follow-up question from Chairperson Curran, Mr. Zemba testified that concerns about loss of habitat for rare and endangered listed species is also not attenuated because of the proximity of the existing Spectra facility.¹⁸¹ In response to a question from Director Coit, Mr. Osenkowski agreed that, despite some already existing fragmentation, this site is a core forest that should not be further fragmented.¹⁸²

The DEM Opinions – The DEM Advisory Opinion and Supplemental Advisory Opinion contain multiple additional reasons why the EFSB should deny a permit to Invenergy. The DEM Advisory Opinion states that, “The majority of the ecological impacts from the facility will occur in upland areas, outside the scope of the wetlands permit and outside the jurisdiction of DEM’s Office of Water Resources, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency. Since the majority of impacts relate to permanent loss of interior forest, they

¹⁷⁶ Id., p. 37, lines 3 – 12.

¹⁷⁷ March 13, 2019 Transcript, p. 198, line 1 – p. 199, line 2.

¹⁷⁸ March 26, 2019 Transcript, p. 75, line 3 – p. 79, line 10.

¹⁷⁹ Feb. 7, 2019 Transcript, p. 37, lines 13 – 23; id., p. 94, line 21 – p. 96, line 21; id., p. 124, line 14 – p. 126, line 2.

¹⁸⁰ March 20, 2019 Transcript, p. 52, line 20 – p. 55, line 1. See also, id., p. 87, line 21 – p. 89, line 4.

¹⁸¹ Id., p. 55, line 2 – p. 57, line 12.

¹⁸² March 26, 2019 Transcript, p. 79, line 16 – p. 82, line 3.

would be exceedingly difficult to mitigate despite a good faith effort to do so.”¹⁸³ On cross-examination, DEM witness Jay Osenkowski reiterated this concern.¹⁸⁴

In its Supplemental Advisory Opinion, DEM states, “Unfortunately . . . the permitting processes under DEM’s jurisdiction, and outside the EFSB process, do not address some of the most severe impacts that would result from construction of the proposed facility.”¹⁸⁵ The DEM Supplementary Advisory Opinion goes on to list several illustrative examples: forest loss and fragmentation, forest biodiversity, damage to upland (non-wetlands) habitat, impacts on species of concern, and problems with invasive species.¹⁸⁶ On cross-examination, DEM witness Chuck Horbert reiterated this concern.¹⁸⁷

Both the DEM Advisory Opinion and the DEM Supplemental Advisory Opinion state: “The majority of the ecological impacts from the Facility will occur in upland areas outside the scope of the wetlands permit, and outside the jurisdiction of DEM’s Office of Water Resources, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency. Further, since the majority of impacts relate to permanent loss of interior forest, they would be exceedingly difficult to mitigate despite a good faith effort to do so.”¹⁸⁸

For this reason, the DEM Supplemental Advisory Opinion “strongly urge[d] the EFSB to consider the foundation of the wetlands regulatory construct when evaluating this area.”¹⁸⁹

When testifying, DEM Deputy Director Terrence Gray confirmed that this is still DEM’s view.¹⁹⁰

¹⁸³ Board Ex. 1A, pp. 22-23.

¹⁸⁴ March 26, 2019 Transcript, p. 49, line 6 – p. 52, line 19.

¹⁸⁵ Board Ex. 1B, p. 10.

¹⁸⁶ *Id.*, at 10-11.

¹⁸⁷ March 21, 2019 Transcript, p. 9, line 9 – 19; *id.*, p. 15, line 3 – p. 17, line 3; *id.*, p. 19, line 12 – p. 20, line 6.

¹⁸⁸ Board Exhibit 1A, p. 22-23; Board Exhibit 1B, p. 12.

¹⁸⁹ Board Exhibit 1B, p. 15.

¹⁹⁰ March 21, 2019 Transcript, p. 131, line 23 – p. 132, line 6.

Context is important. The proposed site for this plant was identified decades before this litigation as being uniquely valuable. Building a plant at this location would cause unacceptable environmental harm, harm which could not be offset by the mitigation parcel. And the context is that the plant itself is wholly unneeded. That is, under the EFSA, this plant cannot be built because it is both unneeded and would cause unacceptable environmental harm.

VI. INVENERGY’S OVERLY OPTIMISTIC PREDICTIONS ABOUT RATEPAYER IMPACTS HAVE BEEN CONTRADICTORY AND WRONG

The EFSA puts the burden of demonstrating that “the proposed facility is cost justified, and can be expected to produce energy at the lowest cost” squarely on Invenergy.¹⁹¹ By presenting predictions of ratepayer impacts that have been both contradictory and demonstrably inaccurate, Invenergy has failed to carry this heavy burden.

In Invenergy’s original application, filed October 29, 2015, Invenergy told the EFSB and the people of Rhode Island that Invenergy would privately fund the entire costs of its plant.¹⁹² It fell to CLF to inform the EFSB of the pendency of two lawsuits at FERC to which Invenergy was a party, in which Invenergy sought to transfer \$168 million in interconnection costs to ratepayers.¹⁹³ CLF’s December 11, 2017 letter to the EFSB on this subject led, the next day, to the EFSB issuing its Show Cause Order 117 that referred to:

. . . pending actions before the Federal Energy Regulatory Commission. One of those actions seeks to have Invenergy’s financial obligations with respect to operation and maintenance costs of its interconnection shifted to ratepayers. As Invenergy has consistently represented to the Board that the project will be privately funded with no costs to ratepayers, FERC’s decision in this matter could render those representations inaccurate.¹⁹⁴

¹⁹¹ R. I. Gen. Laws § 42-98-11(b)(2) (as to cost-justified and least cost); R.I. Gen. Laws § 42-98-11(b) (as to burden of proof being on Invenergy).

¹⁹² Invenergy Ex. 1A, Section 4.1 (Project Cost), p. 20.

¹⁹³ Dec. 11, 2017 CLF Letter to the EFSB.

¹⁹⁴ EFSB Show Cause Order 117, p. 1.

It was unfortunate that Invenergy sought to transfer its interconnection costs to ratepayers. But it was even more unfortunate that Invenergy failed to forthrightly inform the EFSB of that fact. The concern of EFSB members on this point is evident from the December 12, 2017 hearing transcript. Chairperson Curran refers to “a cost that has heretofore not been contemplated”¹⁹⁵ Director Coit said, “It’s been stated over and over by Mr. Niland and the attorneys representing Invenergy that this is – I am reading from his prefiled testimony, ‘This is a privately financed project without seeking any ratepayer funding.’”¹⁹⁶ In fact, on December 12, 2017, the EFSB was forced to suspend this Docket until Invenergy had withdrawn its lawsuits at FERC in which Invenergy sought to transfer its own costs onto ratepayers..

Invenergy also improperly calculated supposed, putative ratepayer benefits from Invenergy’s participation in the two previous ISO auctions, FCA-10 (held in February 2016) and FCA-11 (held in February 2017), and presented this inaccurate information to the EFSB.

Invenergy’s expert testified that in order to calculate the putative ratepayer benefits from Invenergy having participated in FCA-10 and FCA-11, he simply calculated the auction clearing price with Invenergy and without Invenergy and looked at the difference on the downward-sloping demand curve that the ISO had used in those auctions to calculate the ratepayer impacts.¹⁹⁷

This was a significant error. The fatal flaw in this methodology is that it incorrectly assumes that – in the absence of Invenergy – there would be no other megawatts from any other Resources to substitute for the absence of Invenergy. But, as we know, in each of those two auctions, there were thousands of megawatts available that did not clear.

¹⁹⁵ Dec. 12, 2017 Transcript, p. 12, lines 9 – 10.

¹⁹⁶ Id., p. 12, line 20 – p. 13, line 1.

¹⁹⁷ Jan. 9, 2019 Transcript, p. 190, line 8 – 191, line 16.

- **In FCA-10**, there were 40,131 MW qualified to participate in the auction, but the net-ICR was only 34,151 MW – that is, there were fully 5,980 MW in the auction that could easily have taken Invenergy’s place.¹⁹⁸ Any of these 5,980 MW could have easily substituted for Invenergy’s CSO of just 485 MW.
- **In FCA-11**, net-ICR went down (to 34,075 MW) and qualified capacity went up (to 40,463 MW), so the surplus of capacity over need rose to 6,388 MW.¹⁹⁹ Once again, any of these 6,388 MW could have taken the place of Invenergy’s CSO of 485 MW.

Yet, despite these enormous surpluses in capacity, Invenergy’s calculation of possible ratepayer benefits assumed – incorrectly – that there was no other capacity whatever available to take Invenergy’s place if Invenergy were not present.²⁰⁰ As a result of this error, the estimates that Invenergy gave to the EFSB of past ratepayer “savings” from FCA-10 and FCA-11 were wrong. Indeed, the glut of surplus capacity in these two auctions suggests that the presence (or absence) of Invenergy had no effect whatever on clearing price in either FCA-10 or FCA-11 (and, thus, could have had no ratepayer impact, much less benefit).

Invenergy’s problem with accuracy on the subject of ratepayer impacts from this project is further demonstrated by the fact that it presented to the EFSB calculations of possible future ratepayer benefits that Invenergy must have known at the time were not – and could not have been – accurate. Specifically, Invenergy deliberately calculated capacity market benefits at a time when Invenergy had no CSO (and might never again acquire a CSO).

Projected, possible future ratepayer benefits from the presence of Invenergy on the ISO-run electricity grid can be derived from benefits in the energy market and/or in the capacity market. These are two separate markets.²⁰¹ At the Preliminary Hearing on January 12, 2016, the

¹⁹⁸ CLF Ex. 23, p. 1.

¹⁹⁹ CLF Ex. 24, p. 1.

²⁰⁰ Unfortunately, on cross-examination, Mr. Hardy gave two diametrically opposite accounts of whether his calculations for ratepayer savings from FCA-10 and FCA-11 had been correct. First, Mr. Hardy acknowledged that either his methodology was incorrect or his prior testimony about how he had calculated ratepayer benefits had been incorrect. Jan. 16, 2019 Transcript, p. 36, line 24 – p. 42, line 23. Mr. Hardy asserted that his prior testimony had been inaccurate. Id., p. 39, lines 21 – 23. But just a moment later, he asserted the exact opposite: that his prior testimony had been accurate. Id., p. 40, lines 21 – 24.

²⁰¹ Jan. 8, 2019 Transcript, p. 78, line 16 – p. 79, line 21 (Hardy testimony).

bulk (over 82%) of the ratepayer benefits that Invenergy touted came from supposed capacity-side savings.²⁰²

Future capacity-side savings are derived from a Resource that has a CSO being entered by the ISO into future FCAs as a price-taker (that is, at zero dollars). This has a price-suppression effect on auction clearing prices that inures to the benefit of ratepayers.²⁰³

Invenergy's expert conceded on cross-examination that all future capacity-side savings therefore vanish (that is, become zero) if a Resource does not have a CSO.²⁰⁴ Nevertheless, even after the ISO terminated Invenergy's CSO (in September 2018), Invenergy impermissibly continued to include capacity-side savings as a major component portion of his putative ratepayer benefits.²⁰⁵ Invenergy's witness conceded on cross-examination that he had done this despite the fact that there is no evidence that Invenergy will ever again obtain a CSO and that he had merely "assumed" that this would occur.²⁰⁶ As a result of this error, even Invenergy's most recently submitted prediction of possible future ratepayer benefits was wrong.

In addition, the way in which Invenergy handled its legal obligation to the ISO after Invenergy acquired a CSO but was unable to be on line as required by June 2019 is probative both of Invenergy's real-world impact on electricity ratepayers and of the fact that the ISO believes that Invenergy is not needed. The extreme ease with which Invenergy was able to sell out of its CSO for two consecutive CCPs – and the hefty profit Invenergy raked in – addresses both ratepayer impacts and the issue of need.

²⁰² Invenergy Ex. 2 (Jan. 12, 2016 PowerPoint presentation), Slide 24 (showing \$212 million in capacity-side savings and \$46 million in energy-side savings).

²⁰³ Jan. 8, 2019 Transcript, p. 79, line 22 – p. 80, line 19 (Hardy testimony); id., p. 82, line 2 – p. 83, line 7 (Hardy testimony).

²⁰⁴ Jan. 9, 2019 Transcript, at 34, lines 12 – 16 (Hardy testimony); id., at 47, lines 5 - 9 (Hardy testimony). See also, Jan. 8, 2019 Transcript, p. 85, lines 9 – 23 (Hardy testimony).

²⁰⁵ Invenergy Ex. 37D, p. 16 (Hardy chart on ratepayer savings). Jan. 8 Transcript, p. 122, lines 4 – 9 (Hardy confirming that he had done this).

²⁰⁶ Jan. 8, 2019 Transcript, p. 96, line 20 – p. 99, line 10 (Hardy testimony, using forms of the word "assumption" nine times, and repeatedly confirming that he has "assumed" that Invenergy would be qualified); Jan. 9, 2019 Transcript, p. 103, lines 12 – 17 (Hardy testimony). See also Jan. 16, 2019 Transcript, p. 34, lines 2 – 8 (re "assumption" for FCA-14).

When Invenergy obtained a CSO of 485 MW on Turbine One in FCA-10 (held in February 2016), Invenergy's obligation was to provide capacity to the ISO-run grid for CCP-10, running from June 1, 2019 to May 31, 2020.²⁰⁷ But Invenergy will not be available for CCP-10, starting June 1, 2019, and, as a result, Invenergy traded out of its CSO for that period in an ISO-run Annual Reconfiguration Auction (ARA).²⁰⁸ Invenergy will also not be available for CCP-11, starting June 1, 2020; as a result, Invenergy also traded out of its CSO for that period in an ISO-run ARA.²⁰⁹

These ISO-run ARAs are, in essence, a “true-up.” Each FCA is conducted 3-plus years before the CCP associated with that FCA. ARAs allow Resources to trade into or out of a CSO. These ARAs can account for changes in net-ICR (how much capacity is needed to keep the lights on) that may have occurred or account for Resources, like Invenergy, that will not be available.²¹⁰ In order to participate in an ARA and acquire a CSO from another Resource, the acquiring Resource must be qualified in advance by the ISO. That qualification process is substantially the same as for participation in a primary FCA.²¹¹

Exactly like clearing prices in the ISO's principal auctions (the FCAs), the clearing prices in the ARAs reflect supply and demand. The way we know that there were more than adequate Resources available to acquire Invenergy's CSO for both of these CCPs is that Invenergy made a profit on the arbitrage both times.²¹² Invenergy reaped a profit of over \$6 million selling out of its CSO for CCP-10.²¹³ Invenergy reaped a whopping profit of approximately \$20 million

²⁰⁷ Jan. 8, 2019 Transcript, p. 110, lines 11 – 21 (Hardy testimony); Jan. 23, 2019 Transcript, p. 29, lines 5 -17.

²⁰⁸ Jan. 8, 2019 Transcript, p. 110, line 22 – p. 111, line 8 (Hardy testimony); *id.*, p. 113, line 13 – p. 114, line 5 (Hardy testimony); Jan. 23 Transcript, p. 29, lines 18 - 21.

²⁰⁹ Jan. 8, 2019 Transcript, p. 111, lines 9 -12 (Hardy testimony); *id.*, p. 114, lines 6 – 12; Jan. 23 Transcript, p. 30, lines 2 – 10.

²¹⁰ Jan. 23 Transcript, p. 27, line 18 – p. 29, line 4. *See, generally*, Jan. 8, 2019 Transcript, p. 125, line 7 – p. 129, line 17 (Hardy testimony, describing the ARAs, and using the word “true-up”).

²¹¹ Burrillville Ex. 39, p. 20, line 21 -21, line 6; Jan. 23, 2019 Transcript, p. 31, line 1 – p. 32, line 3.

²¹² Burrillville Ex. 39, p. 20, line 15 – p. 21, line 21; Jan. 23 Transcript, p. 30, lines 11 – 24; *id.*, p. 32, line 4 – p. 34, line 11.

²¹³ Jan. 23, 2019 Transcript, p. 32, line 10 – p. 33, line 7; Burrillville Ex. 39, p. 21, lines 8-16.

selling out of its CSO for CCP-11.²¹⁴ This \$26 million profit has already been paid to Invenergy by New England ratepayers – despite the fact that Invenergy has neither a power plant, nor a permit to build a power plant. That is, today Invenergy has already had a negative impact on New England ratepayers.²¹⁵

The ease with which Invenergy was able to sell out of its CSO is also probative of the fact that the ISO doesn't need Invenergy, because ARA results reflect supply and demand.²¹⁶ The ease with which Invenergy was able to trade out of its CSO and the profit made by Invenergy each time shows “that the Invenergy plant clearly wasn't needed”²¹⁷ And, without a demonstrated need, the EFSB cannot grant a permit.

Invenergy failed to meet its burden under the EFSA to show that its plant is cost justified. Its calculations of both past and future ratepayer impacts were based on assumptions that are directly contradicted by facts in the Record. Because Invenergy did not satisfy its burden to show that the plant is cost justified, the EFSB cannot grant a permit.

VII. THE MANY DIFFERENCES BETWEEN THE FOOTPRINT POWER PLANT AND INVENERGY'S PROPOSED PLANT PRECLUDE THE ISSUANCE OF A FOOTPRINT-TYPE SETTLEMENT IN THIS CASE

OER introduced, as an exhibit, the 2014 “Footprint Settlement” pertaining to a gas-fired power plant in Salem Harbor, Massachusetts.²¹⁸ The essence of the Footprint Settlement was a provision for annually declining carbon emissions from the plant.²¹⁹ However, there are so many differences between the Footprint plant and Invenergy's proposed plant that the EFSB cannot

²¹⁴ Jan. 23, 2019 Transcript, p. 33, line 21 – p. 34, line 3; Burrillville Ex. 39, at 21, lines 18 – 19.

²¹⁵ Notably, that negative impact on ratepayers is not offset by any putative price suppression effect that Invenergy inaccurately claimed with regard to FCA-10 and FCA-11. As demonstrated above, such price suppression effect is predicated on Invenergy's inaccurate assumption that in those two auctions there were no other Resources available to take Invenergy's place if Invenergy were not present.

²¹⁶ Burrillville Ex. 39, at 20, line 15 – p. 21, line 21; Jan. 23 Transcript, at 30, lines 11 – 24; id., p. 32, line 4 – p. 34, line 11.

²¹⁷ Jan. 23, 2019 Transcript, at 34, lines 12 – 21.

²¹⁸ OER Ex. 4.

²¹⁹ Id.

consider or impose a Footprint-type permit in this case. (There is also one similarity that CLF discusses, below.)

The differences between Invenergy and Footprint are many and major. First, the Footprint facility was built on the site of a former coal-fired power plant; if built, Invenergy would be built in what is now a forest.²²⁰ Sites of former power plants are a uniquely suitable location for new facilities – and a far cry from paving over a forest in the middle of a wildlife corridor to build an unneeded plant.

Second, the Footprint plant is located close to the important Boston load pocket, but the proposed Invenergy plant is significantly further from the Boston load pocket.²²¹ Because the Footprint plant was built on the site of a closed power plant, the Footprint plant was able to utilize an existing interconnection to the ISO-run electricity grid; in contrast, the Invenergy plant would have to build a new interconnection which would have cumulative environmental impacts with the proposed plant.²²²

Third, there is no Record evidence in the case that would support a Footprint-type permit (with declining annual carbon emissions) in this case. Not one of the 37 witnesses who prefiled testimony with the EFSB discussed (or even mentioned) Footprint or how a carbon emissions cap might work in this case in their written submissions. Not one of the 13 governmental Advisory Opinions (nor any of the Supplemental Advisory Opinions) mentioned Footprint or declining carbon caps. Even OER did not discuss, mention, or even allude to Footprint (or declining carbon emissions) in either its Advisory Opinion²²³ or Supplemental Advisory Opinion.²²⁴ Nor did OER's expert witness, Dr. Ellen G. Cool, so much as mention Footprint in

²²⁰ March 26, 2019 Transcript, p. 217, line 4 – p. 218, line 11.

²²¹ *Id.*, p. 222, line 21 – p. 223, line 17.

²²² *Id.*, p. 223, line 18 – p. 226, line 7 (but see Mr. Niland first stating falsely that he is “not sure what is meant by cumulative impacts” *id.*, p. 224, lines 12 – 18); before acknowledging that he does know what is meant by “cumulative impacts.” *Id.*, p. 225, lines 16-18.)

²²³ Board Ex. 5A.

²²⁴ Board Ex. 5B.

her prefiled testimony.²²⁵ Neither any party in this case nor the EFSB itself propounded discovery or data requests to any party to elucidate any matter pertaining to the Footprint plant or the Footprint settlement. The Footprint plant went before the Massachusetts Energy Facility Siting Board pursuant to a Massachusetts statute, and has never formally been before this EFSB.

Finally, and most importantly, the two main legal reasons why the EFSB cannot grant a permit to Invenergy are not addressed by giving Invenergy a permit that requires annually declining caps on carbon emissions. First, under the EFSA, the EFSB cannot grant Invenergy a permit if the plant is unneeded. This problem is neither solved nor even addressed by granting a permit to an unneeded plant, which permit includes emission limits. Second, under the EFSA, the EFSB cannot grant Invenergy a permit if the plant would cause unacceptable environmental harm. The problems of building a plant in a uniquely sensitive location – thereby destroying forest connectivity and valuable habitat – are in no way solved by limiting the carbon emissions from the plant.

CLF's discussion of the Footprint plant would not be complete without reminding the reader of the one salient similarity and difference between Footprint and Invenergy. This is the similarity: both the Footprint plant and Invenergy's proposed plant were seriously behind schedule. This is the difference: in response to Footprint's delays, the ISO changed the Tariff, with FERC approval, in order to give Footprint the additional time that it needed. In response to Invenergy's delays, the ISO terminated Invenergy's CSO, with FERC approval. This is the reason for the difference: the difference reflected the fact that the ISO believed that it needed the Footprint plant, because of its proximity to the Boston load pocket, but does not need (nor want) Invenergy's proposed plant.²²⁶

²²⁵ OER Ex. 1.

²²⁶ March 26, 2019 Transcript, p. 226, line 16 – p. 233, line 4 (referring to the Jan. 29, 2019 Transcript testimony of Glenn Walker, p. 39, line 16 – p. 45, line 15). Significantly, when Mr. Niland was asked directly whether he disagreed with Mr. Walker's opinions, Mr. Niland declined to disagree. Id., p. 236, lines 1-18.

Invenergy and Footprint are apples and oranges. Footprint was a plant that the ISO wanted, on the site of a previous plant, near a load pocket. Invenergy is a plant that the ISO clearly has no use for and would be located in what is now a forest. Giving Invenergy a permit with declining carbon emissions does nothing to fix these problems.

VIII. CONCLUSION

This has been the largest case in the history of the EFSB. There were 45 witnesses, 37 of whom filed at least one volume of prefiled testimony; many filed a second volume, and some filed as many as five volumes. There were 13 governmental Advisory Opinions, and several Supplemental Advisory Opinions. There were hundreds of exhibits – some fairly technical – totaling tens of thousands of pages. The Final Hearing was conducted on 30 separate dates over the course of a year, producing 30 volumes of transcript.

Nevertheless, despite this complexity, the issue before the EFSB is sufficiently simple that it can be stated in a single sentence:

Will the EFSB grant a permit to build an unneeded fossil fuel power plant, that has already cost ratepayers tens of millions of dollars, that would emit carbon well past 2050, in the exact location that was identified decades ago by both DEM and TNC as being uniquely valuable, unfragmented forest?

Under the EFSA, the EFSB cannot grant a permit unless it finds that: (a) the plant is needed; and (b) that the plant would not cause unacceptable environmental harm; and (c) that the plant is cost justified.

The plant is not needed. As the ISO figures show, electricity demand in New England is declining while supply is increasing. As Invenergy's expert witness testified, this has caused the crash in FCA clearing prices in every one of the four consecutive auctions since this Docket was opened. And, of course, the lack of need allowed the ISO to cancel Invenergy's CSO – the first

time in the history of the ISO that it has ever believed it appropriate to take that drastic action, an action that Invenergy told FERC “must be reserved for the most *egregious* cases.”²²⁷

The plant would cause unacceptable environmental harm. It is undisputed that the plant would emit carbon pollution for decades, well beyond 2050. It is undisputed that the plant’s proposed location is on a piece of land identified decades ago by TNC as being uniquely valuable, unfragmented forest between Maine and Washington, D.C. And it is undisputed that the proposed site is so uniquely valuable that in 2009 DEM tried, unsuccessfully, to buy the land in order to permanently protect it.

The plant is not cost justified. Indeed, Invenergy may have the unenviable distinction of being the only “power plant” in history that has actually cost New England ratepayers tens of millions of dollars without having an actual power plant, without having a permit to build a power plant, and without having ever contributed a single electron to the electricity grid.

²²⁷ CLF Ex. 20 (Invenergy’s Nov. 9, 2018 FERC Filing), n.3, p. 9, emphasis in Invenergy’s original.

Respectfully, in these circumstances, the EFSB cannot grant a permit to Invenergy.

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CERTIFICATE OF SERVICE

I certify that the original and seven hard copies of this document were hand delivered to the Energy Facility Siting Board in two separate formats: redacted pursuant to the Non-Disclosure Agreement and unredacted. This was done on May 16, 2019. In addition, the redacted version was served electronically on the service list in the case, with unredacted copies served on parties to the Non-Disclosure Agreement. This was done on May 17, 2019.



LIST OF ACRONYMS

ARA – Annual Reconfiguration Auction, conducted by the ISO (which see) in which Resources can trade into or out of CSOs (which see).

CCP – A one-year Capacity Commitment Period; all CCPs run from June 1 through May 31 of the following year.

CCP-# – Designates the specific number of a CCP. Every CCP-# corresponds to the FCA-# (which see) of the same number.

CLF – Conservation Law Foundation.

CPS Milestones – Critical Path Schedule Milestones. These are major events – such as obtaining site control, obtaining required permits, and closing on financing – tracked by the ISO for Resources that obtain a CSO.

CREC – Clear River Energy Center, the applicant in this proceeding.

CRMC – Rhode Island Coastal Resources Management Council.

CSO – Capacity Supply Obligation, awarded in an ISO-run (which see) FCA (which see).

DEM – Rhode Island Department of Environmental Management.

EFSA – Energy Facility Siting Act, was enacted in 1986 and created the EFSB (which see).

EFSB – This Energy Facility Siting Board, created by the EFSA (which see).

FERC – Federal Energy Regulatory Commission, oversees the ISO pursuant to the Federal Power Act of 1935.

FCA – Forward Capacity Auction, conducted once a year by the ISO as part of the FCM (which see).

FCA-# – Designates the specific number of a particular FCA; for example FCA-10 was conducted in February 2016 for CCP-10 (which see) running June 1, 2019 to May 31, 2020.

FCM – Forward Capacity Market.

FCTS – “Forward Capacity Tracking System” forms filed by Invenergy with the ISO, through which the ISO kept track of Invenergy’s progress in meeting CPS Milestones.

ICR – Installed Capacity Requirement, the minimum number of megawatts that the ISO seeks to acquire in each FCA (which see); also referred to as net-ICR (which see).

IMM – The ISO’s Internal Market Monitor.

ISO – See ISO-NE.

ISO-NE – Independent System Operator – New England (also appears as “the ISO”). The ISO-NE is the RTO (which see) for the six New England states and is regulated by the Federal Energy Regulatory Commission (FERC) (which see).

KW-mo. – Kilowatt-month. The stream of income derived from obtaining a CSO (which see) is denominated in KW-mos.

MOPR – Minimum Offer Price Rule. This sets a minimum price that a Resource is allowed to bid into an FCA (which see).

MW – Megawatt.

Net-ICR – Net Installed Capacity Requirement (which see). Technically the “net” in “Net-ICR” refers to netting out the capacity available through the Hydro-Quebec Interconnection.

OER – Rhode Island Office of Energy Resources.

OFP – Offer Floor Price. This “floor price” is the lowest price a Resource is allowed to bid into an FCA under the MOPR (which see).

Resource – A Resource is a defined term in the ISO Tariff, and appears in this brief with an initial capital R. A Resource is a generating resource of electricity and capacity such as a power plant.

PUC – Rhode Island Public Utilities Commission.

SENE – Southeastern New England. The SENE zone is a geographical portion of the larger ISO (which see) footprint; the SENE zone includes all of Rhode Island.