STATE OF RHODE ISLAND

ENERGY FACILITY SITING BOARD

IN RE: Invenergy Thermal Development LLC's

Docket No. SB-2015-06

Application to Construct the Clear River Energy Center Power Plant in Burrillville, RI

POST-HEARING MEMORANDUM ON BEHALF OF INVENERGY THERMAL DEVELOPMENT LLC

By its Attorneys,

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Table of Contents

Secti	<u>on</u>	Page
I.	INTRODUCTION	1
II.	LEGAL STANDARD	7
III.	ANALYSIS	8
A.	ISSUE 1: Whether CREC is necessary to meet the needs of the State and/or region for energy of the type to be produced by the proposed facility.	8
В.	ISSUE 2: Whether CREC is (a) cost-justified and can be expected to produce energy at the lowest reasonable cost to the consumer; (b) capable of remaining consistent with the objective of ensuring that its construction and operation will comply with all applicable laws, rules, regulations and ordinances under which, absent the Act, a permit, license, variance, or assent would be required; or (c) does consideration of public health, safety, welfare, security and the need for CREC justify a waiver of some requirement where compliance cannot otherwise be assured.	16
i.	Issue 2A – CREC is Cost-Justified	16
ii.	Issue 2B – CREC will Comply with Laws that would be Applicable Absent the Act.	18
iii.	Issue 2C – Waiver From Certain Laws is Justified	24
C.	ISSUE 3: Whether CREC will cause unacceptable harm to the environment.	25
i.	Public Health	25
ii.	Air Quality	25
iii.	Resilient Rhode Island Act	27
iv.	Water Quality and Water Supply	30
<i>v</i> .	Groundwater and Surface Water	33
vi.	Wetlands	34
vii.	Noise	36

viii.	Traffic	37
ix.	Wastewater Disposal	38
x.	Biodiversity	39
xi.	Visual	44
xii.	Hazardous Materials – Emergency Response and Protection	45
xiii.	<i>EMF</i>	46
xiv.	Lighting	46
D.	ISSUE 4: Whether CREC will enhance the socio-economic fabric of the State.	47
Е.	ISSUE 5: Whether construction and operation of CREC is consistent with the State Guide Plan.	48
F.	Proposed Conditions.	49
IV.	CONCLUSION	50

Table of Authorities

Cases	<u>Pages</u>
Anderson v. Friendship Body & Radiator Works, Inc., 112 R.I. 445, 450 (1973)	36
Belanger v. Cross, 488 A.2d 410, 412-413 (R.I. 1985)	36
Conlin v. Greyhound Lines, Inc., 120 R.I. 1, 6 n.3 (1978)	36
Kain v. Dept. of Environmental Protection, 474 Mass. 278 (2016)	30
Kaveny v. Cumberland Zoning Bd. of Review, 875 A.2d 1, 8 (R.I. 2005)	19-20
Murphy v. Zoning Bd. of Review of South Kingstown, 959 A.2d 535, 542 (R.I. 2008)	21
Myles v. Women & Infant Hosp., 504 A.2d 452 (R.I. 1986)	36
Ret. Bd. Of Employees Ret. System of Rhode Island v. DiPrete, 845 A.2d 270, 294 (R.I. 2004)	36
Salve Regina College v. Zoning Bd. of Review, 594 A.2d 878, 881 (R.I. 1991)	21
Smith v. Zoning Bd. of Review of Warwick, 103 R.I. 328, 334, 237 A.2d 551, 554 (1968)	21
Toohey v. Kilday, 415 A.2d 732, 737 (R.I. 1980)	21
<u>Statutes</u>	
C.G.S.A., Title 16, chapter 277a, §16-50p	10
Conn. Public Act No. 98-28	10
Conn. Public Act Nos. 11-80 and 12-165	10

R.I. Gen. Laws §39-1-27.7	17
R.I. Gen. Laws §42-6.2-2	27
R.I. Gen. Laws §42-11-10	1-2
R.I. Gen. Laws §42-98-1	7
R.I. Gen. Laws §42-98-2	1-2, 7-10, 31
R.I. Gen. Laws §42-98-7	25, 33, 34, 39
R.I. Gen. Laws §42-98-9	2
R.I. Gen. Laws §42-98-11	7-8, 10, 24
R.I. Gen. Laws §45-24-47	40
Local Regulations	
Tiverton Subdivision Regulations, Article X, §23-53(II)(b)(6)	40
Tiverton Subdivision Regulations, Article X, §23-54	40
Town of Burrillville General Ordinance, §16-39	36
Town of Burrillville Zoning Ordinance, §17-31	40

I. INTRODUCTION

Invenergy Thermal Development LLC ("Invenergy") seeks the approval of the Rhode Island Energy Facility Siting Board ("EFSB" or "Board") to site and construct the Clear River Energy Center ("CREC" or "Project" or "Facility"), an approximately 1000MW combined cycle electric generating facility off of Wallum Lake Road in Burrillville, Rhode Island. Invenergy has met its burden to demonstrate that the Project satisfies the criteria and standards set forth in the Rhode Island Energy Facility Siting Act ("EFSA"). Further, the Project is consistent with the Statewide Planning Program ("Statewide Planning") established pursuant to R.I. Gen. Laws §42-11-10, as expressly incorporated into the EFSA by the Rhode Island General Assembly. R.I. Gen. Laws §42-98-2(5). Statewide Planning was "established to prepare, adopt, and amend strategic plans for the physical, economic, and social development of the state and to recommend those to the governor, the general assembly, and all others concerned." R.I. Gen. Laws §42-11-10(b)(1). "All strategic planning . . . shall be conducted by or under the supervision of the statewide planning program." R.I. Gen. Laws §42-11-10(b)(2).²

In accordance with these policy directives, the EFSA establishes a balancing approach which assesses the long-term need for energy of the type to be produced by a proposed facility in light of the socio-economic benefit and the resulting expected impact from the development of a major energy facility. Thus, when the Rhode Island General Assembly enacted the EFSA, it specifically tasked Statewide Planning to undertake a strategic planning exercise to address these issues in order to advise and inform the EFSB. The EFSA recognizes the importance of

¹ The applicable standards are discussed in the EFSB's Preliminary Order and Decision ("Preliminary Order"). Order No. 86, dated and effective Mar. 10, 2016 at 9-12.

² Statewide Planning consists of the State Planning Council and the Division of Planning which is a division within the Department of Administration. R.I. Gen. Laws §42-11-10(b)(2). The State Planning Council consists of a variety of stakeholders. R.I. Gen. Laws §42-11-10(e)(1-20).

Statewide Planning, as it and the Public Utilities Commission ("PUC") are "empowered to undertake evaluations and projections of long and short term energy needs, and any other matters that are necessary to establish the state energy plans, goal, and policies" and "[t]he state planning council shall be authorized and empowered to adopt a long term plan assessing the state's future energy needs and the best strategy for meeting them." R.I. Gen. Laws §42-98-2(5); see also R.I. Gen. Laws §42-98-9(d) and (e) (emphasis added).

Statewide Planning advised this Board that the Project is consistent with the State's planning goals and policies in three advisory opinions addressing the issues of long-term need, socio-economic impact and State Guide Plan ("SGP")³ consistency. Board 2A at 28, 46; Board 2B at 24; 2C at 9-10.⁴ The socio-economic analysis included economic impact assessment, State and municipal revenues, energy reliability and social impact assessment. Board 2A at 6-24. The SGP consistency analysis included, *inter alia*, long-term need through a review of SGP Element: Energy 2035 ("Energy 2035"), as well as Rhode Island Rising, Land Use 2025, Transportation 2035 and Water 2030. *Id.* at 24-44. Statewide Planning found that the Project would have an overall positive socio-economic effect and that it was consistent with the SGP, including Energy

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³ The SGP contains strategic plans dealing with "land use; physical development and environmental concerns; economic development; housing production; energy supply, including the development of renewable energy resources in Rhode Island, and energy access, use, and conservation[.]" R.I. Gen. Laws §42-11-10(d).

⁴ In its Preliminary Order, this Board stated that, "The Board must specifically consider whether the construction and operation of the Facility proposed is consistent with the Statewide Planning Program's SGP, including the State Energy Plan. In support of this issue, the Statewide Planning Program must render an advisory opinion to the Board." Order No. 86 at 11-12. Each advisory opinion issued pursuant to this directive was approved, without any objection, by the State Planning Council. Board 2A, 2B and 2C.

2035, contingent upon Invenergy receiving all State and federal permits. *Id.* at 45-46.⁵

Invenergy presented factual and expert testimony that both met its burden of proof under the EFSA, and was consistent with Statewide Planning's conclusions. Ultimately, three topic areas presented the most controversy and discussion: long-term need for energy of the type to be produced by the Facility; whether or not the Facility will cause unacceptable harm to the environment; and credibility. On each of those topic areas, Invenergy's witnesses presented credible and reliable testimony (which was also consistent with the majority of the advisory opinions received by the EFSB), while the Conservation Law Foundation ("CLF") and the Town of Burrillville ("Town") (collectively "Objectors") consistently failed to overcome that testimony.

Regarding long-term need, the evidence confirms that the Project is consistent with and serves the long-term needs of the State for the type of energy to be produced by the Facility. The Objectors tried to evade the EFSA's requirement to assess need in the long term.

As to the issue of unacceptable harm to the environment, the Objectors failed to counter the positive advisory opinions issued by Statewide Planning. For example, when discussing noise that can be objectively measured in decibels, the Town's expert agreed that the Facility would meet the noise requirements in the Town's Ordinance. However, as to biodiversity in the upland areas (*i.e.*, outside of the United State Army Corps of Engineers ("ACOE") or the Rhode Island Department of Environmental Management ("DEM") jurisdiction), the Objectors ignored the balancing required by the EFSA and took the position that *any* development would, in and of itself, cause unacceptable harm.

⁵ Neither the change in the Project's water plan nor the disqualification of Unit 2 from certain forward capacity market ("FCM") participation altered Statewide Planning's positive conclusions. Board 2B at 24; 2C at 10.

Turning to the issue of credibility, CLF in its opening statement asserted that it would "put into the record based on record evidence facts that show that Invenergy has lied to the EFSB, lied to ISO New England and lied to the public" Apr. 26, 2018 Tr. at 62:12-16. "Lie" is a strong word to use before any tribunal, particularly since these assertions turned out to be nothing more than CLF's misreadings and misinterpretations. Nothing untoward materialized from CLF's cross-examination of Invenergy's witnesses on issues CLF had indicated were critical, such as air emissions and flow blocking of habitat. Simply stated, CLF failed to

On December 11 and December 22, 2017, the Town signed on to two letters submitted by the Conservation Law Foundation, addressing three matters that were then pending at the Federal Energy Regulatory Commission (FERC) that pertained to Invenergy. The subject letters contained statements with respect to the then pending FERC proceedings. Some statements have been misconstrued to suggest that, if Invenergy had prevailed in the FERC proceedings, Rhode Island rate payers would have been burdened with paying millions of dollars more per year than they are paying presently. **This is not the case**. (Emphasis added.)

A copy of the Town's letter is attached hereto as **Attachment A**.

⁶ For example, CLF persisted in asserting that Invenergy's FERC complaint would cost ratepayers \$168 million, but failed to produce any evidence to support its assertion. *Id.* at 81:4-13. That failure is understandable, since the Town completely refuted CLF's assertion in its letter to this Board of April 9, 2018, acknowledging that:

⁷ CLF filed a motion to strike Mr. Ryan Hardy's air emissions testimony, arguing that there was no basis for his testimony because Invenergy no longer had a capacity supply obligation ("CSO") for Unit 1. In denying the motion, the Board noted that CLF could cross-examine Mr. Hardy on the subject when he testified again in January 2019. Dec. 5, 2018 Tr. at 20:04-14. CLF did not in fact conduct any follow-up cross-examination on that point and, despite asserting that it would file a renewed motion to strike Mr. Hardy's testimony, CLF did not do that either.

⁸ CLF asserted that Invenergy's biodiversity expert, Mr. Jason Ringler, had been dishonest with The Nature Conservancy ("TNC") when requesting access and use of certain modeling for biodiversity purposes. Feb. 7, 2019 Tr. at 15:21-23. CLF never cross-examined Mr. Ringler on this point (or at all), and Mr. Scott Comings of TNC conceded that, regardless of the reason Mr. Ringler wanted the modeling information, TNC would have provided it to him. Feb. 7, 2019 Tr. at 44:20-24 (Comings).

provide this Board with any evidence to support its assertions.⁹

The opinions and testimony of the Town's witnesses reflected its opposition-at-all-cost approach. Town 34. The Town's Zoning and Planning Boards, Building Inspector, Planner and other Town witnesses ignored factual evidence and distorted legal standards in an attempt to justify that opposition. For example, the Zoning Board determined that the Project would disrupt the general characteristics of the community simply because it required a special use permit (contrary to established law that the Project is a conditionally permitted use) and conceded that the Town Zoning Ordinance ("Zoning Ordinance") does not place any dimensional limits on energy facilities in the F-5 Zoning District. July 25, 2018 Tr. at 60:14-68:8 (Raymond); Aug. 16, 2018 Tr. at 136:19-22; 169:24-171:21 (Johnson). Nonetheless, the Zoning Board issued a negative advisory opinion solely because it opposed (and still opposes) the Project, not because CREC failed to provide the requisite information. Aug. 16, 2018 Tr. at 178:11-179-24 (Johnson).

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⁹ For example, Mar. 28, 2019 Tr. at 20:21-27:12 (Confidential).

¹⁰ Despite claiming it did not have adequate information to render an advisory opinion, the Zoning Board Chairman admitted that the Zoning Board had access to all of the information Invenergy provided to the Town (including the Planning Board materials and information filed in response to Town data requests in the EFSB docket). Aug. 16, 2018 Tr. at 151:8-157:23 (Johnson).

¹¹ Additionally, Mr. Raymond Goff and Mr. Joseph Raymond cited unpublished "requirements" and ignored voluminous information provided by Invenergy. The Town asserted that its Zoning Ordinance and Subdivision and Land Development Regulations ("Subdivision Regulations") prohibit "irregularly shaped lots", but ultimately was unable to identify any such prohibition. Town 35 and 35A; Dec. 5, 2018 Tr. at 207:09-217:17 (Raymond). Mr. Goff conceded that nothing in the Town's Subdivision Regulations prohibit configuring a lot to avoid wetlands and that nothing states that a rectangular lot shape is preferred. Dec. 5, 2018 Tr. at 214:4-217:17 (Goff). Mr. Raymond admitted that the Zoning Ordinance does not limit the definition of energy generating facility to one turbine and invented a theory that Ocean State Power ("OSP") constitutes four electric generating facilities. Jul. 25, 2018 Tr. at 68:4-8, 113:7-114:6 (Raymond). Both witnesses admitted that Invenergy provided them with multiple reports and information

The Town's witness on multiple issues (including topics that he had never before testified about – *see also infra*, ¶49), Mr. Glenn Walker, testified on property value as a licensed appraiser subject to the standards of ethics in the Uniform Standards of Professional Appraisal Practice ("USPAP") – standards that are incorporated into Rhode Island's appraiser licensing statute. Jul. 24, 2018 Tr. at 130:16-131:20 (Walker). When testifying subject to those standards, Mr. Walker agreed with Invenergy's expert, Mr. Michael MaRous, and conceded that CREC would not have an impact on property values. Jul. 24, 2018 Tr. at 168:14-169:21 (Walker), 71:5-72:3 (MaRous). Yet when Mr. Walker testified regarding need, an area on which he had never testified previously (and an area not subject to the USPAP ethics standards), he ignored key portions of the very documents cited and relied upon in his pre-filed testimony. Jan. 23, 2019 Tr. at 97:18-98:18, 104:11-12, 161:10-167, 173:14-191:10 (Walker); Jan. 24, 2019 Tr. at 7:18-16:14, 56:12-21 (Walker); Jan. 30, 2019 Tr. at 75:6-24, 88:12-96:3 (Walker).

In a similar exercise in selective review, the Town's biodiversity witness, Mr. Anthony Zemba, failed to thoroughly review the CREC and Burrillville Interconnection Project Freshwater Wetlands Application ("Wetlands Application"), and conceded that he reviewed neither the wetland flagging nor the mitigation plan that were filed nine months prior to his testimony. The "avoid, minimize and mitigate" directive requires a wetlands expert to review Invenergy's mitigation report and wetland flagging. Mr. Zemba sought to diminish the impact of his failures merely by stating that he was not the Town's wetlands expert. Mar. 20, 2019 Tr. at 94:18-95:8 (Zemba); see also Mar. 13, 2019 Tr. at 120:17-21 (Zemba).

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request responses, which they reviewed—but failed to mention—when rendering their opinions. *Id.* at 74:19-78:12, 106:5-108:1 (Raymond); Dec. 5, 2018 Tr. at 218:9-225:21 (Goff).

¹² Mr. Zemba said that he knew nothing of the Sweet Hill Farm Mitigation Site. Mar. 13, 2019 Tr. at 128:15-16; Invenergy 93E.

The Objectors are left to argue that unacceptable harm would be caused by *any* development taking place on the proposed Project site, which is counter to the Rhode Island General Assembly's recognition of a major energy facility's potential environmental impacts, and its adoption of a balancing standard to address those recognized impacts. In this regard, the Rhode Island General Assembly has stated that it:

[R]ecognizes that reasonably priced, reliable sources of energy are vital to the well-being and prosperity of the people of this state; that there are major issues of public health and safety and impact upon the environment related to the technologies and energy sources used in some facilities; that some energy facilities require a major commitment of funds and resources and require many years to build that the decision to permit or deny their construction will have long term impact on the economy of the state; that these decisions will affect the availability and cost of the energy; and that the evaluation of proposals must recognize and consider the need for these facilities in relation to the overall impact of the facilities upon public health and safety, the environment and the economy of the state....

R.I. Gen. Laws §42-98-1.

Turning from unsubstantiated invective and opinions, and consistent with the General Assembly's directive, this Memorandum will focus on the balancing required by the EFSA and not on the "build absolutely nothing" approach pursued by the Objectors. As discussed in detail below, the evidence submitted by Invenergy, coupled with the advisory opinions, establishes that the Project meets the standards for approval set forth at R.I. Gen. Laws §42-98-2(8) and 11(b).

II. LEGAL STANDARD

Invenergy's burden of proof is set forth in §11(b) of the EFSA, R.I. Gen. Laws §42-98-11(b). Invenergy must establish that:

- (1) Construction of the proposed facility is necessary to meet the needs of the state and/or region for energy of the type to be produced by the proposed facility.
- (2) The proposed facility is cost-justified, and can be expected to produce energy at the lowest reasonable cost to the consumer consistent with the objective of ensuring that the construction and operation of the proposed facility will be accomplished in compliance with all of the requirements of the laws, rules,

regulations, and ordinances, under which, absent this chapter, a permit, license, variance, or assent would be required, or that consideration of the public health, safety, welfare, security and need for the proposed facility justifies a waiver of some part of the requirements when compliance cannot be assured.

(3) The proposed facility will not cause unacceptable harm to the environment and will enhance the socio-economic fabric of the state.

This is not a simple exercise, and the fact that Invenergy alone tendered twenty-three witnesses reflects that every phrase in the above criteria must be parsed in order to determine what it means and whether Invenergy has met its burden.

III. ANALYSIS

The issues before the Board are dictated by the requirements of the EFSA and were identified in the Preliminary Order. Order No. 86 at 9-12.¹³

A. <u>ISSUE 1: Whether CREC is necessary to meet the needs of the State and/or region</u> for energy of the type to be produced by the proposed facility.

- 1. The EFSA need standard requires a long-term resource adequacy analysis. R.I. Gen. Laws §§42-98-2(2) and 42-98-11(b). The need assessment mandated by §11(b)(1) is governed by the mandate in §2(2) that, "Construction, operation, and/or alteration of major energy facilities shall only be undertaken when those actions are justified by long term state and/or regional energy need forecasts." R.I. Gen. Laws §42-98-2(2).
- 2. The General Assembly, in setting forth the legislative policy underlying the EFSA, and specifically the issue of need, requires that:

An energy facility planning process shall be created through which the statewide planning program, in conjunction with the division of public utilities and carriers, will be empowered to undertake evaluations and projections of long and short term energy needs, and any other matters that are necessary to establish the state energy plans, goals, and policies. The state planning council shall be authorized and empowered to adopt a long term plan assessing the state's future energy needs and the best strategy for meeting them....

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 $^{^{13}}$ For ease of discussion purposes, Invenergy has numbered the paragraphs in this Memorandum.

R.I. Gen. Laws §42-98-2(5).

- 3. Further, §2(8) of the EFSA requires that this Board:
- [G]ive priority to energy generation projects based on the degree to which such projects meet, criteria including, but not limited to:
- (i) Using renewable fuels, natural gas, or coal processed by "clean coal technology" as their primary fuel;
- (ii) Maximizing efficiency;
- (iii) Using low levels of high quality water;
- (iv) Using existing energy-generation facilities and sites;
- (v) Producing low levels of potentially harmful air emissions;
- (vi) Producing low levels of waste-water discharge;
- (vii) Producing low levels of waste into the solid waste stream; and
- (viii) Having dual fuel capacity.
- R.I. Gen. Laws §42-98-2(8). The record establishes that CREC satisfies each item. 14
- 4. The Rhode Island long-term planning guide—Energy 2035, adopted by the State Planning Council—defines long-term need based on a 20-year horizon. CLF 17 at 1, 59. In its original advisory opinion, Statewide Planning noted that, "While all State Guide Plan elements have equal weight, Energy 2035: Rhode Island State Energy Plan (the "Plan") is the most directly relevant to the Project." Board 2A at 26.
 - 5. Energy 2035's goal is to establish diversity in the State's energy portfolio, not to

¹⁴ For example, CREC is located in close proximity to the Algonquin Gas Transmission ("Spectra") compressor station. Statewide Planning noted in its finding that, "In particular, given the Project's proposed proximity to the pre-existing gas pipeline and major electrical transmission infrastructure, the Project furthers Rhode Island Goals and Policies Physical Development Policy 1-3: Minimize the adverse impact of power generation and transmission facilities on the environment by careful planning and capitalizing on potential compatible uses to the greatest extent possible." Board 2A at 44. Statewide Planning further noted that, "In this instance, close proximity of the primary fuel source that is needed to produce the electrical energy and the transmission network that is needed to distribute it is particularly relevant." Board 2B at 24. In another proceeding involving Ocean State Power ("OSP"), this Board previously recognized the benefit of that facility's close proximity to the Blackstone Valley Electric switching station, power lines and natural gas pipelines. *In Re Application of Ocean State Power* ("*In Re OSP*"), SB 87-1, Order No. 7, dated Oct. 25, 1988 at 7; *see also* Board 2B at 17; Jul. 19, 2018 Tr. at 66:19-71:7 (Wiitanen).

eliminate facilities using fossil fuel. CLF 17; Board 2A at 27; Board 2B at 9; Board 5A at 28-33; Invenergy 1A at Cover Letter; Invenergy 58A at 15. Energy 2035 identifies Statewide Planning as the agency that, "Creates long-range policy plans for land use, energy, transportation, and natural resources in Rhode Island." CLF 17 at 33. Energy 2035 is "intended to provide policy makers with a high-level implementation plan for achieving the long-term goals and performance measure targets set in the Plan" and "proposes policies and strategies with a planning horizon of 20 years." *Id.* at 59.

- 6. Rhode Island enacted the EFSA in 1986, well before the implementation of the Independent System Operator New England ("ISO-NE") FCM construct, and it is undisputed that the EFSA's language with respect to how need is to be determined has never been amended. Jan. 9, 2019 Tr. at 50:14-51:11 (Hardy). Regardless of ISO-NE's role in short or even medium-term energy planning, the EFSA requires an examination of the long-term planning conducted by Statewide Planning. R.I. Gen. Laws §§42-98-2 and 11.
- 7. The Objector's need experts acknowledged that the need assessment under the EFSA contemplates a long-term resource adequacy analysis, and did not dispute the fact that both the EFSA and Energy 2035 use a 20-year horizon for evaluating long-term resource adequacy. Jan. 17, 2019 Tr. at 60:3-61:7; 65:7-67:1; 70:17-71:2 (Fagan "So [the EFSA] clearly says we should be looking beyond just a ten year-year period") ¹⁶; Jan. 23, 2019 Tr. at 96:6-22

¹⁵ The EFSA differs from the Connecticut Public Utility Environmental Standards Act, which has been amended multiple times to incorporate ISO-NE's activities and the concept of "reliability need" into its terms. *Compare* R.I. Gen. Laws §42-98-11 with C.G.S.A., Title 16, chapter 277a, §16-50p. *See also* Conn. Public Act No. 98-28, Conn. Gen. Stat. Title 16, chapter 277a, section 16-50p(c)(3) (Approved Apr. 29, 1998); Conn. Public Act Nos. 11-80 (Approved Jul. 1, 2011) and 12-165 (Approved Jun. 15, 2012).

¹⁶ CLF attempted to introduce selected portions of Energy 2035 in an improper effort to assert how greenhouse gas emissions are accounted for in Rhode Island. Invenergy insisted on the entire report being admitted as a full exhibit. CLF certainly is and was aware of the scope and

(Walker).

- 8. There is no dispute that natural gas resources are needed in the long term. CLF 17 at 41 ("Supply-side resources with the most significant potential future contributions are offshore wind, combined heat and power, distributed photovoltaic solar power, **and natural gas**....")(emphasis added); Invenergy 202 at 1. In the three alternative energy futures in the scenario modeling that is part of Energy 2035, energy from natural gas continues to range from 47% to 69% of the energy mix. *Id.* at 45.¹⁷
 - 9. Statewide Planning concluded that CREC is needed, ¹⁸ stating:

After careful consideration the Office of Energy Resources and the Program finds the Project to be consistent with Energy 2035. More specifically:

- 1. The Plan makes no specific prohibition against the construction of new electric generating units that qualify as major energy facilities under R.I.G.L. § 42-98-3(d) located in Rhode Island;
- 2. The Plan emphasizes a balance between long-term efforts to transform energy systems and near-term steps to maintain energy system reliability, within the context of a regional wholesale energy system;

content of Energy 2035, since CLF's counsel is listed as a member of the Energy 2035 Advisory Council, whose members "[p]layed a central role in guiding the overall development." CLF 17 at *vi*. As it attempted to do with emissions accounting, CLF strategically limited the scope of Mr. Fagan's engagement to avoid addressing the long-term need element of the EFSA and Energy 2035. Jan. 17, 2019 Tr. at 65:7-67:1.

¹⁷ The Town's witness, Mr. Walker, relied on studies that actually confirm the long-term need for CREC. Jan. 23, 2019 Tr. at 161:10-167, 173:14-191:10 (Walker); Jan. 24, 2019 Tr. at 7:18-16:14, 56:12-21 (Walker); Jan. 30, 2019 Tr. at 75:6-24, 88:12-96:3 (Walker). The London Economics International LLC ("LEI") report, a portion of which was attached to Mr. Walker's pre-filed testimony, confirms that a majority of retirements will be in the South Eastern New England ("SENE") Zone, and that there will be a dramatic increase in need for thermal generation as of 2035. Town 36, at Exhibit GCW-14; Invenergy 204 (Full Version of LEI Report); *see also* Invenergy 208 at 67 and Invenergy 209 at 50, 59 (showing the increased need for natural gas continuing over an even longer term, between 2035 and 2042); Jan. 30, 2019 Tr. at 92:6-93:13; 94:18-96:1 (Walker).

¹⁸ This Board directed the PUC to issue an opinion on need, but that opinion has now been rejected as stale. Order No. 86 at 9-10. Nevertheless, the PUC's opinion was based on a hearing process, and relied extensively on Mr. Parker's testimony, which is in this hearing record and, as noted below (¶11), is supported by Statewide Planning. Board 6.

- 3. The Project is consistent with the Plan's goals and performance measure targets; and
- 4. The Project is consistent with the Plan's policy themes and strategies.

Board 2A at 28, 46.19

- 10. There are many factors²⁰ that support Statewide Planning's conclusion that CREC is needed to meet the long-term need of Rhode Island and the region. Invenergy's need expert, Mr. Hardy, concluded that highly efficient natural gas facilities, with fast-start (fast ramp-rate) and dual fuel capabilities and that provide replacement capacity for impending retirements, are critical for the region's energy needs and to support the growing number of renewable energy projects. Invenergy 1A at Cover Letter and 115-120; Invenergy 36 at 3-5, 11-12, 22-24, 31, 41; Invenergy 37A at 17; Invenergy 37B at 3; Invenergy 37C at 5-6, 14; Invenergy 37D at 5, 22; Invenergy 38 at 4, 10; Invenergy 39 at 6; Jan. 9, 2019 Tr. at 55:13-59:24 (Hardy).²¹
- 11. Mr. Seth Parker, the need expert for the Office of Energy Resources ("OER") and the Division of Public Utilities and Carriers ("Division"), independently confirmed the need for CREC:

In addition to providing capacity to assure resource adequacy, generating resources also provide fast start, flexibility, and other performance characteristics for ISO-NE to meet its operational requirements. As the electric industry and wholesale markets evolve, particularly due to the growing penetration of wind power and other renewable resources, these performance characteristics are becoming more important for ISO-NE's system operators to manage the New England bulk power system. CREC's performance characteristics should help

¹⁹ ISO-NE's 2017 disqualification of CREC Unit 2 did not alter Statewide Planning's conclusions. Board 2C at 9.

²⁰ The Town's need expert, Mr. Walker, acknowledged that need is determined based on a multitude of factors, including past experience, future trends, future expectations in the market, social surplus, renewable procurement programs, demand growth or decrease, types of resources coming on the system, etc. Jan. 23, 2019 Tr. at 155:14-156:4 (Walker).

²¹ Mr. Hardy's need analysis also factored in the New England states' energy policies that support the growth of hydro power and wind energy. Invenergy 37D at 21-23.

ISO-NE meet its operational requirements.

PUC Docket 4609, Parker Testimony ("Test.") at 10. Notably, Statewide Planning issued a letter supporting Mr. Parker's testimony as part of its original advisory opinion. Board 2A at App A.²²

- 12. Several factors confirm the long-term need for CREC:
- a. Rhode Island and the region need a facility with a reliable and dependable fuel supply, which CREC's dual-fuel capacity will satisfy as it uses ultra-low-sulfur diesel ("ULSD") instead of natural gas in the event of constraints on the natural gas pipeline system. Invenergy 36 at 5; 37A at 6, 21; 37B at 3; 37C at 5, 14; 202 at 1, 8, 9 and 144; Jan. 23, 2019 Tr. at 110:9-112:12; 122:1-8 (Walker).
- b. Energy generation with fast-start and high ramp-rate capabilities is also needed, and CREC will meet that need as it will have the ability to increase output over a short period of time (10 to 30 minutes), providing a backstop to support the growth of renewable resources in Rhode Island and the region. Board 5A at 32-33; Town 49 at 16-17; Invenergy 1A at Cover Letter; 37A at 6, 17; 37D at 22; 38 at 10; 202 at 8-9; Sept. 18, 2018 Tr. at 132:4-133:22, 183:19-188:3 (Cool); Jan. 9, 2019 Tr. at 55:13-56:17, 159:14-162:12 (Hardy); Jan. 23, 2019 Tr. at 120:9-121:8 (Walker).²³
- c. CREC will also replace inefficient, older and dirtier energy generation with its efficient, newer and cleaner energy generation, which will improve the total overall performance and effectiveness of energy generation in the region. Board 5B at 14; Invenergy 1A at Cover Letter; Invenergy 37D at 5-6.
- d. Greater supply of energy from natural gas is also needed to meet demand within the import constrained SENE zone, particularly in light of pending and at-risk supply retirements. Town 36, Attachment GCW-2 at 19; Town 49 at 18; Invenergy 37D at 5-6; 202 at 3 and 144; Jan. 17, 2019 Tr. at 202:1-16 (Fagan); Jan. 24, 2019 Tr. at 25:2-17, 38:1-12, 42:6-9, 44:3-9 (Walker).
- 13. While the EFSA's focus is on need in the long term (20 years or more), ISO-NE's

²² CLF's need expert Mr. Fagan agreed with Mr. Parker: "I don't have anything in particular against thermal plants. You know, they serve their purpose. You know, I clearly state in my testimony, for example, the importance of the set of existing, more efficient, newer combined cycle plants in New England to provide the flexibility that the system requires." Jan. 17, 2019 Tr. at 8:9-16 (Fagan).

²³ ISO-NE President and CEO Gordon Van Welie stated that "the region needs fast-responding, flexible capacity resources that are not constrained in their operation[.]" Invenergy 37A at 6 (quoting *State of the Grid: 2017*, Jan. 30, 2017).

shorter-term projections also confirm that need, for the same reasons. ISO-NE's planning documents confirm that CREC is needed because the New England power system is shifting away from resources with stored fuels (oil and coal) towards resources with "just-in-time" fuel (natural gas) and intermittent resources (wind and solar) making dual fuel capacity "a key reliability factor" to support the variability of these intermittent resources. Mr. Walker did not dispute those conclusions. Town 36, Attachment GCW-2 at 9; Town 49 at 16-18 (stating "flexible natural-gas resources are a necessary element of the hybrid grid"); Invenergy 202 at 8 and 144; Jan. 23 Tr. at 104:18-127:2; Jan. 24, 2019 Tr. at 17:14-31:24 (Walker).²⁴

14. The Objectors focused much attention on the termination of CREC Unit 1's CSO, but sought to gloss over the undisputed fact that the termination was due exclusively to concerns about CREC's ability to physically supply its needed capacity on time as a result of scheduling delays – not due to lack of need. Invenergy 37D, attachment RH-3A (FERC Order) at ¶46.²⁵ All agreed that not having a CSO does not mean a resource is not needed, and that there is nothing to prevent CREC from qualifying as a new entrant in any future FCA after FCA 13. PUC Docket 4609, Parker Test. at 14; Board 2A at 4; Invenergy 37D at 6-11; Jan. 17, 2019 Tr. at 81:21-82:19, 83:9-84:8 (Fagan); Jan. 23, 2019 Tr. at 151:19-152:2; Jan. 24, 2019 Tr. at 68:20-24, 114:20-115:1(Walker).

²⁴ The Objectors sought to make much of the fact that recent ISO-NE Forward Capacity Auctions ("FCA") resulted in capacity clearing in excess of the Net Installed Capacity Requirement ("NICR"). Apart from the fact that this is irrelevant in the context of the EFSA's requirement to determine need in the long term, one cannot "break apart" auction results and arbitrarily designate certain cleared capacity resources as NICR resources and others as "surplus" resources. Accordingly, capacity in excess of the NICR is needed. PUC Docket 4609, Parker Test. at 12; Board 2A at 4; *In Re NTE Connecticut, LLC (Killingly)*, CT Siting Council, Docket No. 470, Decision, dated May 11, 2017 at 5.

²⁵ Mr. Parker determined that both CREC units are needed, even though Unit 2 did not have a CSO. PUC Docket 4609, Parker Test. at 14; Board 2A at 4. CLF admitted that Invenergy could obtain an EFSB license without a CSO. Jan. 12, 2016 Tr. at 72-75.

- 15. All of the relevant State agency advisory opinions and testimony confirm that CREC is needed, and the Board should accept those opinions. Board 2A at 4, 14-15, 27-32; Board 2B at 11; Board 2C at 9; Board 5A at 32-33; Board 5B at 14; PUC Docket 4609, Parker Test. at 7-19.
- 16. CLF's expert, Mr. Fagan, admitted that his analysis did not address the long-term need assessment required by the EFSA. Jan. 17, 2019 Tr. at 66:17-67:1; 72:13-74:7 (Fagan). In this regard, this Board is aware that Invenergy presented a Motion to Strike Mr. Fagan's testimony, based primarily on the fact that he completely ignored the requirements of the EFSA. In the course of the briefing on that Motion, it became clear that several facts are undisputed:
 - a. Mr. Fagan created his own definitions of short, medium, and long-term timeframes, and gave no consideration to the express requirements of the EFSA. Jan. 17, 2019 Tr. at 58:23-60:6.
 - b. Mr. Fagan's engagement was purposely structured to be limited to a 10-year horizon, again without reference to the requirements of the EFSA. Jan. 17, 2019 Tr. at 62:11-63:17; 66:17-67:1; 72:22-73:6; 87:16-20; 98:12-22; 99:13-100:11.
 - c. Mr. Fagan's definitions of short, medium and long-term have not been adopted by ISO-NE and are inconsistent with the requirements of the EFSA. Jan.17, 2019 Tr. at 60:17-61:7.
 - d. The policy established by the Rhode Island General Assembly in §2(2) of the EFSA requires a much longer horizon than the 10-year period to which Fagan's engagement was specifically limited. Jan. 17, 2019 Tr. at 65:7-67:1.
 - e. State long-term planning is a resource adequacy planning exercise that looks out 20 to 25 years. Jan. 17, 2019 Tr. at 60:3-24-61:1-7; 70:17-71:2. ²⁶

peak load growth and energy load growth." Jan. 17, 2019 Tr. at 209:6-213:8 (Vatter). More to the point, however, in the briefing on the Motion to Strike Mr. Fagan's testimony, both CLF and the Town admitted that the determination of need is subject to the mandate in §2(2) of the EFSA. Rather than contesting the point, CLF argued that, "CELT Reports are the ISO's longest range planning documents, and look out ten years into the future." CLF Response at 1. The Town in turn asserted that "the proposed facility is not justified by long term state and/or regional energy

²⁶ Mr. Fagan's opinions are based on nothing other than a mathematical calculation of supply and demand based on the ISO-NE Capacity, Energy, Loads and Transmission ("CELT") reports, irrespective of the type of facility at issue in this proceeding. Jan. 17, 2019 Tr. at 143:16-144:21. Mr. Marc Vatter testified that the forecasts in ISO-NE's CELT reports are "under forecasting"

B. ISSUE 2: Whether CREC is (a) cost-justified and can be expected to produce energy at the lowest reasonable cost to the consumer; (b) capable of remaining consistent with the objective of ensuring that its construction and operation will comply with all applicable laws, rules, regulations and ordinances under which, absent the Act, a permit, license, variance, or assent would be required; or (c) does consideration of public health, safety, welfare, security and the need for CREC justify a waiver of some requirement where compliance cannot otherwise be assured.

In the Preliminary Order, this Board separated Issue 2 into three subsidiary issues: 2(a), is the Project cost-justified; 2(b), will the Project comply with laws applicable absent the Act; and 2(c), would a waiver from certain laws be justified? Order No. 86 at 9-11.

i. Issue 2A – CREC is Cost-Justified.

- 17. As a result of the 1996 restructuring of the wholesale and retail electricity markets, CREC will be a merchant plant, "which will sell power on the open market at competitive market prices." *In Re RI Hope Energy Limited Partnership*, SB-98-1, Order No. 35, dated Mar. 28, 1998; Invenergy 37D at 11-13; *see also In Re Tiverton Power Associates Limited Partnership*, SB-97-1, Order No. 33, dated Mar. 25, 1998.
- 18. "Since no buyer will be obligated to purchase the output of the plant at predetermined prices, the competitive market will ensure that the [F]acility is cost-justified and producing energy at the lowest cost to the consumer." *In Re RI Hope Energy Limited*Partnership, supra; Invenergy 37D at 11-13; Board 2A at 4. Mr. Parker agreed:

[G]enerators in New England are merchant plants and not owned by utilities; their costs and risks are not directly borne by ratepayers. Merchant generators, such as the proposed CREC, must compete in the ISO-NE's competitive power markets. Ratepayers only pay for capacity and energy that ISO-NE determines to be cost-effective through its wholesale procurement and pricing mechanisms.

need forecasts (R. I. G. L. §42-98- 2(2))", and that, "The most relevant long term state and/or regional energy need forecasts are those developed by ISO-NE." Town Response at 1. These statements reflect two significant admissions – that need is to be determined in the long term, as mandated by §2(2) of the EFSA, and that Fagan's self-constructed notions of need are irrelevant to this Board's charge to determine the long term need for CREC.

PUC Docket 4609, Parker Test. at 24; Board 2A at 4; Board 5A at 21 (stating that CREC bears the economic risks, not Rhode Island customers).

- 19. Multiple factors confirm that CREC is cost-justified:
- a. The estimated Project costs are approximately \$1 billion. All costs will be borne by Invenergy, not ratepayers. Invenergy 58A at 6; Mar. 28, 2019 Tr. at 79:18-23 (Confidential); Invenergy 37D at 11-13; PUC Docket 4609 Parker Test. at 24; Board 2A at 4.
- b. CREC will be a low-cost generator in New England because it will provide highly advanced and efficient generation technology. Invenergy 1A at 6, 38 Confidential (Apr. 22, 2016 Memo.); PUC Docket 4609, Parker Test. at 25-26; Board 2A at 4.
- c. CREC's ratepayer savings will be between \$228-286 million. Invenergy 37D at 16. Mr. Parker found that PA's cost-savings assumptions and methodology were generally reasonable, and that CREC would "provide a material savings for Rhode Island consumers." PUC Docket 4609, Parker Test. at 32, 36-40; Board 2A at 4.
- d. Rhode Island consumers will benefit from CREC's lower wholesale capacity and energy prices. PUC Docket 4609, Parker Test. at 26-29, 36-40; Board 2A at 4.
- 20. All of the relevant State agency advisory opinions and testimony confirm that CREC will reduce regional wholesale capacity and energy prices and that CREC will lower electricity costs for Rhode Island consumers. Board 2A at 6, 33; Board 2B at 3; Board 2C at 10; PUC Docket 4609, Parker Test. at 32, 36-40; Board 2A at 4.
- 21. The advisory opinions and testimony also confirm that CREC will not impede cost-effective energy efficiency and conservation ("EE&C") opportunities or renewable resource alternatives because CREC is not an alternative to EE&C, and under the Least-Cost Procurement mandate. National Grid is required to—and is—implementing cost-effective EE&C measures pursuant to Rhode Island Regulations. Therefore, EE&C opportunities will be implemented regardless of CREC. R.I. Gen. Laws §39-1-27.7; Board 2A at 31-32; Board 5A at 31-32; Invenergy 1A at 122, 128; CLF 17 at 60, 78; PUC Docket 4609, Parker Test. at 40-45.

22. CLF conceded that CREC's ratepayer benefits would be "meaningful". PUC Docket 4609, CLF Post-Hearing Mem. at 1 ("True, the record evidence shows that ratepayer benefits from the plant would be small but meaningful"). The Town failed to present competent evidence to rebut the fact that CREC is cost-justified. Mr. Walker's testimony was based on an improper metric,²⁷ and ignores the fact that CREC's participation in the FCM already lowered energy costs for Rhode Island customers. Town 5 at 6; Invenergy 37D at 13-15.

ii. Issue 2B – CREC will Comply with Laws that would be Applicable Absent the Act.

- 23. The EFSB requested advisory opinions on this issue from six jurisdictional agencies and officials: Town Planning Board ("Planning Board"), Town Zoning Board of Review ("Zoning Board"), Town Building Inspector ("Building Inspector"), Rhode Island Historic Preservation & Heritage Commission ("RIHPHC"), Rhode Island Department of Transportation ("DOT") and DEM. Order No. 86 at 13-14, 16.
- 24. RIHPHC advised that it had completed a review of the Project and concluded that the Project "will have no effect on any significant archaeological resources, and that it will have no effect on any significant above-ground historic properties[.]" Board 7; Invenergy 28 at 8.²⁸ Neither the Town nor CLF presented any evidence to the contrary.
 - 25. DOT advised that the Project requires a physical alteration permit ("PAP"). Board

²⁷ Mr. Walker's assertion that CREC will cost ratepayers approximately \$47.25 million in excess capacity payments is unsupported by the record. Town 5 at 6. Ratepayer costs are not affected by reconfiguration auctions between capacity resources. CREC did not prevent replacement capacity from participating in the original forward capacity auction. Instead, it offered capacity for less than the competition and reduced ratepayer costs. Jan. 9, 2019 Tr. at 44:1-45:3, 132:8-136:6, 188:14-18 (Hardy).

²⁸ Although the Project site has been revised since RIHPHC issued its positive advisory opinion, all revisions reduce CREC's impacts and do not impact any archeological sites or cultural materials. Invenergy 218 at abstract ("No archeological sites or cultural materials were identified during this investigation.").

- 3B. On June 5, 2018, DOT issued CREC's PAP. Invenergy 190; Feb. 5, 2019 Tr. at 171:14-172:1 (Oullette); Mar. 20, 2019 Tr. at 5:21-24 (MacDonald). Invenergy's proposal to use Algonquin Lane instead of the woods road for Project site ingress and egress requires an amendment to the PAP application. *Infra* ¶75. Accordingly, Invenergy proposes to treat this permit as a post-licensing permit under Rule 1.14 of the EFSB Rules.
- 26. The Town Zoning and Planning Boards issued negative advisory opinions. These should be rejected because they do not meet the minimum standards for decisions as specified by the Rhode Island Supreme Court. *See Kaveny v. Cumberland Zoning Bd. of Review*, 875 A.2d 1, 8 (R.I. 2005); Town 26 and 27; *infra* ¶27-31.
- 27. The Zoning Board failed to make any findings of fact. Rather, the negative opinion was based on the Zoning Board's erroneous assertion that Invenergy had not provided sufficient information. Town 27 at 11. Contrary to that assertion, the Zoning Board Chairman admitted that Invenergy had submitted expert testimony, multiple reports, memoranda, plans and responses to information requests from the Zoning Board at the time it made its decision. Aug. 16, 2018 Tr. at 141:6-152:3 (Johnson); Invenergy 166-181.²⁹
- 28. The Zoning Board also failed to provide any substantive analysis to support its recommendation to deny CREC's special use permit. Rather, contrary to settled Rhode Island law, the Zoning Board merely parroted the special use permit statutory standards. A municipal board, however, "must set forth in its decision findings of facts and reasons for the actions taken," which must be "factual rather than conclusions, and the application of the legal principles

²⁹ One thing was patently clear from the record – given its overriding opposition (Town 34), no matter how much information Invenergy provided to the Town, the Town was never going to acknowledge that it had been provided with all necessary information, despite the fact that it was. Jul. 25, 2018 Tr. at 74:19-78:12, 106:5-108:1 (Raymond); Dec. 5, 2018 Tr. at 218:9-225:21 (Goff).

must be something more than the recital of a litany." *Kaveny*, 875 A.2d at 1, 8; Town 27 at 11, ¶6; Aug. 15, 2018 Tr. at 115:11-117:13 (Pimentel); Aug. 16, 2018 Tr. at 170:24-176:22 (Johnson).³⁰ Invenergy met the special use permit standards.³¹ Invenergy 63 at 15-18; Invenergy 93B, Exhibit 3; Aug. 15, 2018 Tr. at 147:4-17 (Pimentel).

The proposed site for the OSP facility is located in an F5, residential-agricultural zone. According to Burrillville Town officials the F5 designation was not intended to limit development in F5 zones to agricultural-residential usage, but simply was a designation for land outside of the developed core areas of the Town. Exhibit OSP 19 at 134; 8/16/88 Tr. 97. Other uses, such as sewage treatment plants and solid waste facilities are allowed by special exception in an F-5 zone. Zoning Ordinance Town of Burrillville, Appendix A, (1988).

William Flanagan, President of the Burrillville Town Council, testified that the Council believed OSP's economic contribution to the Town would be substantial, with little offsetting impact on infrastructure. Town Exhibit 13 at 4. Accordingly, the Town revised its zoning ordinances to allow for construction of the OSP facility.

On December 28, 1987 an electric generating facility was defined as a special exception for an F5 zone by unanimous vote of the Burrillville Town Council. Town Exhibit 2. This was preceded by the Planning Board's recommendation that an electric generating facility be allowed by special exception in F5 zones.

In Re OSP at 5. Notably, Invenergy met with the Town prior to submitting its zoning application and no one from the Town ever suggested a use variance was required. Invenergy 168-170; Invenergy 169; Invenergy 170; Dec. 5, 2018 Tr. at 219:5-221:20 (Goff). It was only during the advisory opinion process, after Invenergy had presented its expert evidence that met the special use criteria, that the Town created the notion that a use variance was required. Town 29 and Town 30.

³⁰ During cross examination, the Zoning Board Chairman was unable to point to any evidence in the record to support the Board's conclusion that Invenergy had not satisfied the special use permit criteria. Instead, the Chairman kept repeating that it recommended denial of the permit because "it's a power plant that's going in a residential area." Aug. 16, 2018 Tr. at 170:24-176:22 (Johnson).

³¹ The Town asserted that a use variance, not a special use permit, was needed because, according to the Town, the Project is two projects instead of one. Town 19; Town 35A. This spurious assertion of "two projects" is clearly nothing more than an effort to avoid the fact that the Zoning Ordinance permits an energy facility like CREC as a special use in the F5 zoning district, and has done so since 1987:

- 29. The Zoning Board also violated Rhode Island law when it recommended denial of Invenergy's low octave band waiver request because (a) it failed to set forth any facts supporting denial of the waiver; (b) its decision ignored that the Planning Board had recommended that Invenergy's waiver request be granted; and (c) its decision ignored that Invenergy's *and* the Town's expert witnesses (Mr. Michael Hankard and Mr. Thomas Hessler) concluded that the waiver request should have been granted. Town 26 at 19; Town 27 at 11; Invenergy 177; Invenergy 181.³²
- 30. The Planning Board's decision that CREC is contrary to the Town's Comprehensive Plan must also be rejected because it is not supported by any findings of fact. Town 26; *supra* ¶26. The Planning Board conceded that CREC will provide an economic benefit to the Town. Town 26 at 10. Beyond that, it is clear that the Zoning Ordinance and Comprehensive Plan are consistent with each other. Aug. 15, 2018 Tr. at 17:05-23:03, 38:19-41:16, 47:9-48:3, 80:2-12, 86:18-90:01, 92:20-95:24, 131:9-132:10 (Pimentel). The Planning Board also ignored the provisions of the Comprehensive Plan confirming that CREC is consistent with its terms: (a) large private utilities, including gas and electric companies, currently exist in the Town; (b) one of the Town's economic development strengths is the presence of these large private utilities; and (c) the Town should target economic development activities that take advantage of existing private utility infrastructure. Town 26 at 11-14; Invenergy 93B, Exhibit 3; Aug. 16, 2018 Tr. at 5:16-8:5 (Partington).
 - 31. The Planning Board's decision should also be rejected in part (except, of course,

³² It is well settled in Rhode Island that a zoning board may not base its decision on lay testimony and ignore uncontradicted and unimpeached expert testimony. *Murphy v. Zoning Bd. of Review of South Kingstown*, 959 A.2d 535, 542 (R.I. 2008); *Salve Regina College v. Zoning Bd. of Review*, 594 A.2d 878, 881 (R.I. 1991); *Toohey v. Kilday*, 415 A.2d 732, 737 (R.I. 1980); *Smith v. Zoning Bd. of Review of Warwick*, 103 R.I. 328, 334, 237 A.2d 551, 554 (1968).

its recommendation that Invenergy's waiver request from octave band limits be granted) because it failed to render an advisory opinion on whether CREC could meet the Town's noise ordinance, even though it conceded that the Town's and Invenergy's experts "seemed comfortable that CREC would be able to achieve the Town's required 43 dbA or less noise limits at all times...." Town 26 at 18-19; Invenergy 177; Jun. 20, 2016 Tr. at 31:6-13 (Hessler), 107:4-108:9 (Hankard); *supra* n.32.

- 32. The Building Inspector issued two separate advisory opinions on the Project stating that: (a) Invenergy's soil erosion and sediment control ("SESC") plan "does not pass muster," but failed to articulate any reason why the SESC plan did not meet the Town Ordinance; and (b) CREC does not meet the requirements of the Town's Ordinance because CREC requires two use variances, one because a portion of the site was allegedly in the A-80 Overlay Zone³³ and another because CREC is allegedly two generating facilities, not one. Town 29 and 30.
- 33. The Board should reject the Building Inspector's advisory opinions because (a) DEM will evaluate Invenergy's SESC plan and determine whether it complies with State law; (b) the A-80 use variance issue is now moot as the Town's and Invenergy's experts agree where the A-80 Overlay Zone ends and Invenergy agreed to ensure that no portion of the CREC site is within the A-80 Overlay Zone; and (c) the argument that CREC is two generating facilities is unsupported in the record and contrary to well-established Board precedent. Board 1A and 1B; Town 42; Invenergy 63 at 15-18, Invenergy 93B, Exhibit 3; Invenergy 93G, 193 and 194; Mar.

³³ Invenergy agreed to change CREC's southern lot line, and the parties agreed that no portion of the site is now within the A-80 Aquifer Zone. Town 42; Invenergy 193; Jan. 17, 2019 Tr. at 214:24-218:4 (Attorneys Blazer and McElroy).

21, 2019 Tr. at 85:6-13, 88:7-10 (Hershberger); supra n.31.34

- 34. DEM advised that there are six areas that are subject to State and federal environmental laws and regulations: (a) air pollution control; (b) alteration of freshwater wetlands; (c) management of stormwater during construction; (d) management of stormwater associated with specific industry activity; (e) discharge of sanitary wastewater; and (f) disposal of industrial wastewater. Board 1B at 13. DEM stated that, "If DEM finds that the Applicant has complied with the requirements of the applicable regulations, a permit will be issued for that proposed activity." *Id.* at 14. Invenergy requests the Board condition the EFSB license on Invenergy receiving all necessary DEM permits.³⁵
- 35. The EFSB, not DEM, reviews Invenergy's onsite wastewater treatment system ("OWTS"). Board 1B at 17. However, Invenergy filed an OWTS application with DEM for it to review and provide feedback to the Board. *Id.*; Invenergy 9 and 135B; Feb. 5, 2019 Tr. at 8:15-19, 9:16-10:8 (Blanchard). It is undisputed that Invenergy's OWTS is designed in accordance with DEM's requirements. Feb. 5, 2019 Tr. at 13:21-14:24 (Blanchard). DEM indicated that its review is complete, but noted that approval cannot be granted until Invenergy's Freshwater Wetlands Permit ("Wetlands Permit") is issued. *Id.* at 13:11-17 (Blanchard). Therefore, Invenergy requests that the Board grant the OWTS permit upon DEM's issuance of Invenergy's

³⁴ This Board has treated previous projects with multiple trains or multiple generating units on one project site as one major energy facility. *In Re Application of Narragansett Electric Company and New England Power Company*, SB-89-1, Order No. 12 (Dec. 17, 1990) (generation facility with three combustion turbines and three associated heat recovery steam generators); *In Re OSP* at 2 (generation facility with two gas-fired turbine units).

³⁵ This Board can and has previously conditioned an EFSB license on an applicant receiving all necessary DEM permits. *In Re OSP*, SB 87-1, Order No. 7, dated Oct. 25, 1988; *In Re Application of Narragansett Electric Company and New England Power Company*, SB-89-1, Order No. 12 (Dec. 17, 1990) *In Re OSP*, SB 87-1, Order No. 37, dated Oct. 27, 1999; *In Re: Rhode Island LFG Genco ("Ridgewood") d/b/a National Grid's Notice of Intent to Construct Power Line*, SB-2009-01, Order No. 64, dated Apr. 16, 2010.

iii. Issue 2C – Waiver From Certain Laws is Justified.

- 36. R.I. Gen. Laws §42-98-11(B)(2) requires that a proposed facility be "in compliance with all of the requirements of the laws, rules, regulations, and ordinances" which would apply, absent the Board's preemptive jurisdiction, or that, in "consideration of the public health, safety, welfare, security and need for the proposed facility," a waiver of the otherwise pertinent requirements is justified.³⁷
- 37. There is ample precedent to support Invenergy's waiver requests. See, e.g., In re the Narragansett Electric Company d/b/a National Grid (Rhode Island Reliability Project), SB-2008-02, Order No. 65, dated and effective Aug. 12, 2010; In re the Narragansett Electric Company (Kent County to Old Baptist Road Transmission Line), SB-93-1, Order No. 25, dated and effective Sept. 23, 1994. For example, in Kent County, the East Greenwich Zoning Board provided a negative advisory opinion, expressing

[C]oncerns about adverse health effect from EMF exposure, negative impacts on property values and quality of life, potential danger from unauthorized access to

³⁶ Neither the Town nor CLF presented any evidence regarding the OWTS.

³⁷ Invenergy only requires a waiver for the low-octave band noise limit, which is fully supported by both Invenergy's and the Town's experts. *Supra* ¶29. Although Invenergy requested height variances during the Zoning and Planning procedure, because the Zoning Board Chairman admitted that the Zoning Ordinance does not list any dimensional limits for an electric generating facility in the F-5 Zoning District, the Board does not need to grant height variance waivers. Jul. 25, 2018 Tr. at 96:5-14, 179:6-183:2 (Raymond); Aug. 16, 2018 Tr. at 136:19-22 (Johnson). The Town contends that Invenergy may require variances from the Zoning Ordinance, Section 30-202 (Aquifer Zoning), Section 30-153 (lots containing wetlands) and/or 30-152 (Multiple structures on one lot). Town 35. As discussed above, the A-80 variance is not needed because Invenergy agreed to change CREC's lot line so that no portion of the site is within the A-80 Aquifer Zone. Jan. 16, 2019 Tr. at 214:24-218:4 (Attorneys Blazer and McElroy). Invenergy does not need a variance from Section 30-153 because the Wetlands Application confirms that less than 40% of the CREC site is made up of wetlands or jurisdictional buffers. Jul. 25, 2018 Tr. at 70:21-71:7 (Raymond); Invenergy 93G. No variance from Section 30-152 is needed, because CREC is one facility, not two. *Supra* n.31.

the right-of-way, negative noise impact due to additional clearing, visual pollution, incompatibility relating to the existing residential community and school, and concerns regarding erosion and sediment.

Kent County at 24. This Board ruled that, given its finding as to need, a waiver from the provisions of the East Greenwich zoning ordinance was justified. *Id.* at 24-25.³⁸

C. ISSUE 3: Whether CREC will cause unacceptable harm to the environment.

i. Public Health

- 38. The Rhode Island Department of Health ("DOH") reviewed the following issues: electromagnetic fields ("EMF"), noise, drinking water quality, air pollution and asthma, emergency response and prevention, climate change, mental health, light pollution and cancer. Board 4A and 4B.
- 39. DOH did not find that CREC would cause unacceptable harm to public health, and instead made recommendations for the Board to consider to mitigate any possible health risks. Board 4A at 34-35; Board 4B at 10-11. Invenergy has committed to protecting public health and agreed to DOH's recommendations. Section F; Invenergy 31.³⁹

ii. Air Quality

40. Invenergy must obtain a Major Source Permit ("MSP") from DEM for the discharge of air emissions. R.I. Gen. Laws §42-98-7; Board 1B at 13; Invenergy 1A, 12, 30 and

³⁸ Further, in the Board's 2008 Reliability Project proceeding, the West Warwick Zoning and Planning Boards and the Warwick Planning Board provided negative advisory opinions. The Board determined that the waiver requests were justified because "there [was] a vital need for the Project" and because "maintaining a reliable supply of electricity is vital to the public health, safety, welfare and security." *Rhode Island Reliability Project* at 31.

³⁹ Some of DOH's recommendations request that the Board consider certain issues in rendering its decision. Those requests are addressed in other sections in this Memorandum. For example, DOH supports the Resilient Rhode Island Act's goals and encourages efforts aimed to minimize carbon emissions. Invenergy established that CREC supports the Resilient Rhode Island Act and will assist with minimizing carbon emissions. *Infra* ¶44-49.

205.40

- 41. To obtain the MSP, Invenergy must demonstrate that the Facility will comply with the requirements of DEM's Air Pollution Control Regulations, DEM's Major Source Permitting Regulations, DEM's Air Toxics Regulations, DEM's Rhode Island Air Dispersion Modeling Guidelines for Stationary Sources, DEM's Guidelines for Assessing Health Risks from Proposed Air Pollution Sources. Board 4A at 17; Invenergy 30. Invenergy must also demonstrate compliance with the National Ambient Air Quality Standards ("NAAQS"). Board 4A at 17; Invenergy 30 at 6.
- 42. Invenergy submitted extensive environmental data regarding air emissions in its application and subsequent filings with the Board. Invenergy 1A, 11, 12, 13, 30, 31. Invenergy submitted its MSP application and applicable updates (including a preliminary draft permit issued by DEM and Invenergy's responses), its Health Risk Assessment ("HRA"), its Multisource Modeling and applicable addenda, along with the testimony of its air expert, Mr. Michael Feinblatt. Invenergy 1A, 11, 12, 13, 30, 31, 205, 206. The record confirms the following:
 - a. DEM will restrict CREC's oil burning back-up fuel operation under the MSP permit. Therefore, air emissions associated with oil burning will be subject to significant limits. Jan. 22, 2019 Tr. at 40:6-20 (Feinblatt). Invenergy currently proposes to limit its oil operation to thirty (unit) days per year. *Id.*; Apr. 2, 2019 Tr. at 97:21-98:4 (Niland).
 - b. The air experts agree that DEM's regulations provide a comprehensive framework for evaluating impacts of air pollution emissions Rhode Island's Air Toxics Regulations are some of the most stringent regulations in the nation, and the requirement of a HRA for major sources provides an extra level of health protection. Board 4A at 17; Invenergy 31 at 6; Jan. 22, 2019 Tr. at 103:10-106:7, 109:18-111:11 (Feinblatt); Jan. 22, 2019 Tr. at 138:18-140:3 (Epner); Jan. 23, 2019 Tr. at 7:1-16 (Byrns).

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⁴⁰ DEM issued Invenergy's Draft Air Permit on May 8, 2019.

- c. Consistent with DOH's position, both the Town's and Invenergy's air experts, Mr. Eric Epner and Mr. Feinblatt, agreed that the NAAQS protect human health, including sensitive populations such as children, elderly and individuals suffering from respiratory diseases, as well as protect the public from any known or anticipated adverse effects of a pollutant. Invenergy 30, 31; Jan. 22, 2019 Tr. at 51:2-8; 109:14-111:11 (Feinblatt); Jan. 22, 2019 Tr. at 155:1-18 (Epner); Jan. 23, 2019 Tr. at 7:17-18 (Byrns).
- d. It is uncontroverted that CREC's air emissions will be below the NAAQS. Jan. 22, 2019 Tr. at 51:2-8 (Feinblatt).
- e. CREC will lead to CO₂, NO_X and SO₂ emissions reductions in the region. OER 1 at 10; Invenergy 36 at 3, 42; 37A at 20; 37D at 21; Jan. 22, 2019 Tr. at 72:18-23 (Feinblatt).
- f. A permit will be issued if CREC complies with the requirements of the applicable laws and regulations for the MSP. Board 1B at 15; Jan. 22, 2019 Tr. at 156:1-4 (Epner). Even the Town's witness conceded that the "issuance of a permit indicates that DEM has determined that the nature and scope of the proposed activities are within standards for acceptable environmental impact established by State and federal laws and regulations." Board 1B at 15; Jul. 24, 2018 Tr. at 139:13-142:21 (Walker); Jan. 22, 2019 Tr. at 138:18-139:23 (Epner).
- g. Invenergy will use the best available control technology ("BACT") and lowest achievable emissions rates ("LAER") to reduce emissions and achieve the lowest available emission rate. Jan. 22, 2019 Tr. at 103:20-104:5 (Feinblatt); Jan. 23, 2019 Tr. at 12:3-13:9 (Byrns).
- 43. DEM's issuance of CREC's MSP constitutes a finding that CREC's air emissions do not present unacceptable harm to the environment. Board 1B at 15; Jul. 24, 2018 Tr. at 139:13-142:21 (Walker); Jan. 22, 2019 Tr. at 101:9-24 (Feinblatt); Jan. 22, 2019 Tr. at 139:16-19, 178:15-180:8 (Epner).⁴¹

iii. Resilient Rhode Island Act

44. The Resilient Rhode Island Act sets targets for greenhouse gas ("GHG") reductions in the State by year 2050. R.I. Gen. Laws §42-6.2-2. It is undisputed that the Resilient

⁴¹ Mr. Epner, a professional engineer, but not an epidemiologist, stated that "meeting a standard does not necessarily mean unacceptable harm to the environment" but failed to provide any support for this statement. Jan. 22, 2019 Tr. at 146:4-6 (Epner).

Rhode Island Act targets "are economy-wide and are not sector-specific." Board 5A at 29; Sept. 18, 2018 Tr. at 119:10-13 (Cool).

- 45. PA Consulting Group, Inc. ("PA") conducted extensive modeling of CREC's GHG impacts, which was updated to account for updated market data and regional infrastructure, including the New England states' renewable resource initiatives. Board 5A at 7-10; Board 5B at 4-10; Sept. 18, 2018 Tr. at 153:10-155:15, 198:14-199:2 (Cool). OER conducted a comprehensive review of PA's analysis, available modeling input data and modeling results and determined that PA's analysis and assumptions support a reasonable forecast for the Project's emissions impacts. *See* Board 5A at 8, 34; Board 5B at 18.
- 46. CREC will displace less efficient and higher-emitting sources across the State and region, resulting in a net decrease in overall CO₂ emissions. Board 5A at 17; Board 5B at 11, 14-15; Sept. 18, 2018 Tr. at 29:12-20 (Hardy); 203:7-19 (Cool).⁴² OER confirmed: "By lowering the system average CO₂ emission rate, the Project will contribute to lowering the consumption-based annual CO₂ emissions for Rhode Island within the electric generation sector." Board 5A at 19.⁴³
- 47. Consumption-based accounting for GHG emissions received a unanimous endorsement from the Executive Climate Change Coordinating Council ("EC4") and is the accepted method for analyzing GHG impacts because electricity in New England is dispatched and transmitted across State and regional boundaries through the integrated transmission and

⁴² OER noted that PA's analysis was conservative, and that, "to the extent that retirement of old plants can be attributable to development of CREC, the Project would contribute to further reducing CO₂ emissions." Board 5A at 18.

⁴³ Trucking water to the Project does not diminish the fact that CREC will result in a net decrease in overall CO₂ emissions. Board 5B at 16 ("Regardless of which of these sites the Project's water is drawn, tailpipe emissions from water delivery trucks would constitute a minor offset to the CO₂ emissions reductions ascribable to CREC"); OER 1 at 12-16.

bulk power system.⁴⁴ The consumption-based method considers GHG emissions associated with electricity used within the State, aligning with State policies and programs, such as the Regional Greenhouse Gas Initiative ("RGGI") and the Renewable Energy Standard ("RES"). Board 5A at 9; Board 5B at 18; Invenergy 186; Invenergy 187; Invenergy 188; Sept. 18, 2018 Tr. at 192:13-194:7 (Cool).⁴⁵

- 48. The relevant State agencies and witnesses concluded that CREC will not prevent the State from achieving its GHG reduction targets under the Resilient Rhode Island Act. Board 1A at 28; 5A at 28; Board 5B at 18; Sept. 18, 2018 Tr. at 191:8-194:7 (Cool).⁴⁶
- 49. The Town and CLF did not present any competent evidence that CREC will prevent Rhode Island from achieving its GHG reduction targets as defined under the Resilient Rhode Island Act. As noted, Mr. Walker has no experience in analyzing State energy policies and air emissions. Sept. 20, 2018 Tr. at 212:9-213:5 (Walker); Town 31.⁴⁷ Dr. Timmons Roberts

⁴⁴ OER expects that "beyo

⁴⁴ OER expects that "beyond the reported forecast period (post-2025), the Project will continue to displace less efficient and higher-emitting resources, but the impact will diminish over time as the region's resource mix continues to become more efficient and increasingly reliant on renewables." Board 5A at 20. OER also confirmed that dispatch of CREC will not affect programs undertaken by the State to diversify its sources of electricity, such as expansion of intermittent renewable resources, and will not affect the expansion of programs that promote energy efficiency. *Id.* at 20, 30-31.

⁴⁵ Using the generation method of accounting, CREC could support Rhode Island meeting the targets under the Resilient Rhode Island Act. Sept. 18, 2018 Tr. at 194:8-18 (Cool).

⁴⁶ In addition, Invenergy expressed its willingness to abide by the Footprint construct, with a mandatory reduction in Project CO₂ emissions through 2050 (assuming the ability to apply offsets and a Project operating life of greater than 30 years). This would further ensure that CREC does not prevent Rhode Island from achieving its GHG reduction targets under the Resilient Rhode Island Act. OER 4; Mar. 21, 2019 Tr. at 157:16-160:24 (Niland); Apr. 2, 2019 Tr. at 159:11-165:8 (Niland).

⁴⁷ Mr. Epner—another Town witness—admitted that he relied on Dr. Roberts' opinion for his statement about GHG emissions and conceded that some regional GHG benefits may occur. Jan. 22, 2019 Tr. at 160:17-24 (Epner); Town 8 at 3.

admitted that he is neither an air emissions expert nor a scientist, but rather a sociologist who studies the impact of climate change and environmental policy. Sept. 20, 2019 Tr. at 35:9-13 (Roberts).⁴⁸

iv. Water Quality and Water Supply

50. CREC will be an air-cooled facility and has minimized its water use by using off-site regenerated mobile demineralization trailers for the production of demineralized water for process use and recycling some process wastewaters within the Facility. Invenergy 8A, 16 at 3-4; Feb. 5, 2019 Tr. at 51:1-9, 134:9-20 (Bacon).⁴⁹

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⁴⁸ With all due respect to Dr. Roberts, his testimony regarding whether Massachusetts uses a consumption-based or production-based accounting method (and recommending that this Board do the same) was not credible. Dr. Roberts admitted that he never read Kain v. Dept. of Environmental Protection, 474 Mass. 278 (2016) and relied solely on "some of the briefs [in the Kain decision] where it shows that the state would have liked to switch to consumption-based accounting, and then it was refuted in the brief by [CLF]." Sept. 20, 2018 Tr. at 27:17-28:4, 82:1-83:23 (Roberts); see also Sept. 18, 2018 Tr. at 208:15-210:23 (Cool). A simple reading of the case—as acknowledged by Dr. Ellen Cool—established that Massachusetts has adopted the consumption, not production, method of accounting. Sept. 18, 2018 Tr. at 208:15-210:23 (Cool); Kain, 49 N.E.2d at 1140, n. 23 ("General Laws c. 21N, §3(c), requires that "[e]missions levels and limits associated with the electric sector shall be established by the executive office and the department, in consultation with the department of energy resources, based on consumption and purchases of electricity from the regional electric grid, taking into account the regional greenhouse gas initiative and the renewable portfolio standard" (emphasis added)). Dr. Cool testified that Massachusetts used the consumption-based method of accounting and that in response to the Kain decision, the Massachusetts Department of Environmental Protection issued the Green Energy Standard, which uses the consumption method. Sept. 18, 2018 Tr. at 208:15-210:23 (Cool); see also Invenergy 191. Further, by failing to include the balance of Energy 2035 when it sought to introduce a redacted version (supra n.16), CLF omitted the portions of Energy 2035 that confirm Rhode Island's use of the consumption-based method of accounting. CLF 17. That omission, and what Energy 2035 actually says, undermines Dr. Roberts' testimony, but is consistent with the testimony of Invenergy's witness, Mr. Hardy, and OER's witness, Dr. Cool. Sept. 18, 2018 Tr. at 92:03-99:14.

⁴⁹ Mr. Hevner testified that the Project was originally water cooled and then changed to air cooled. This was incorrect. Feb. 5, 2019 Tr. at 221:17-21 (Hevner). He also testified that Invenergy had not filed an application with the ACOE, which was likewise incorrect. Mar. 13, 2019 Tr. at 43:3-19 (Hevner). These basic facts were in materials available to Mr. Hevner, specifically, the EFSB application and the Wetlands Application. Invenergy 1A at Section 11.1; Invenergy 10 at Section 1.1; Invenergy 93D-G.

- 51. R.I. Gen. Laws §42-98-2(8)(iii) requires that this Board give priority to energy generation projects using low levels of high quality water.⁵⁰
- from the Town of Johnston (which purchases its water from the Providence Water supply system ("Providence Water")), which will be trucked by Benn Water & Heavy Transport Corp. ("Benn Water") via state roads. Invenergy 8A and 8B. ⁵¹ CREC's back-up or alternative water supply includes multiple potable water sources, as confidentially identified in its Revised Water Supply Plan. Invenergy 8A and 8B. It is undisputed that any one of these supplies can meet CREC's water needs. Feb. 5, 2019 Tr. at 86:2-8 (Bacon); 219:22-223:3 (Hevner).
- 53. CREC would not be the only major energy facility that obtains water from outside its host community. *In Re RI Hope Energy Limited Partnership*, SB-98-1, Order No. 35, dated Mar. 28, 1998 (this Board approved a water cooled facility importing treated effluent to its site in Johnston from Cranston, Rhode Island). OSP withdraws its water from the Blackstone River and, when unable to draw from the Blackstone River, OSP trucks in all of its water (up to 2 million GPD). Feb. 5, 2019 Tr. at 163:19-164:4 (Bacon).
- 54. Providence Water's source is the Scituate Reservoir Complex, which has a total storage capacity of 41.3 billion gallons and a net storage capacity of 39.8 billion gallons.

 Invenergy 8A at 2. CREC's water use is projected to be 0.04% of the Safe Yield of the

⁵⁰ The daily water demand for the Facility will be between 15,840 gallons per day ("GPD") (average annual ambient temperature) and 18,720 GPD (peak summer design ambient temperature when not employing evaporative cooling for combustion turbine inlet air). Water demand will increase by 724,320 GPD for each day of oil firing. Invenergy 8A at 9; Feb. 5, 2019 Tr. at 55:13-57:14 (Bacon).

⁵¹ On April 23, 2019, the Superior Court ruled that the water supply agreement between Invenergy and Johnston is valid. *CLF v. Clear River Energy, LLC, et al.*, C.A. No. PC-2017, 2019 WL 1896540 (R.I.Super. Apr. 23, 2019).

Providence Water System under drought conditions. Invenergy 15 at 12. It is undisputed that Providence Water's capacity can support CREC's water demands, and those demands will not have a negative impact on Providence Water's ability to meet current and future needs of its customers, even under drought conditions. Invenergy 8A at 11; Invenergy 15 at 11-12; Feb. 5, 2019 Tr. at 153:1-154:4 (Bacon); 219:22-223:3 (Hevner).

- 55. Potable water for the Project during its operation will be obtained from an on-site potable well that will be permitted by DOH, and it is estimated that the average demand will be less than 1,000 GPD. Invenergy 8A at 8; Invenergy 41 at 4.
- 56. All relevant State agencies concluded that CREC's water supply plan will not cause unacceptable harm to the environment. Board 1B; Board 2B⁵²; Board 4B. DOH's water quality expert agreed that CREC will not impact the Town or Rhode Island's water quality, stating that trucking water from Johnston or other alternative locations, instead of using Well 3A, mooted the water quality issue and that other State permits will regulate CREC's impacts to groundwater, including the Wetlands Permit. Feb. 5, 2019 Tr. at 206:18-207:1, 211:12-212:5 (Swallow). DEM concluded that, since water for CREC is supplied by Johnston, "there are no impacts associated with water withdrawal." Board 1B at 16.⁵³

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⁵² Statewide Planning concluded that CREC is not inconsistent with SGP Element: Rhode Island Water 2030's focus on the management of potable water systems, and that, if CREC receives all necessary permits, its water supply plan will be consistent with SGP Element: Water Quality 2035. Board 2B at 12, 14.

⁵³ Mr. Hevner agreed that CREC's water supply plan "appears to be adequate to supply water needs for the CREC", and that Providence Water is a dependable water supply source. He also accepted Mr. Bacon's reliance on the safe yield analysis conducted by PARE (WSSMP; PARE 2010) and did not take issue with the water quality. Feb. 5, 2019 Tr. at 219:22-221:16, 222:19-22, 24-224:3 (Hevner). Other than wanting Invenergy to explore on-site wells, which Mr. Hevner admitted could impact residential wells in the Town, all of Mr. Hevner's water supply concerns related to trucking traffic, but he is not a traffic engineer and was not qualified as a traffic expert. Feb. 5, 2019 Tr. at 216:17-23, 226:1-11, 227:22-232:4 (Hevner). Notably, the Town's traffic

v. Groundwater and Surface Water

- 57. Invenergy must obtain two Rhode Island Pollutant Discharge Elimination System ("RIPDES") permits for stormwater (one for industrial activity and another for construction activity), which are exempt from the Board's jurisdiction. R.I. Gen. Laws §42-98-7; Board 1B at 16.
- 58. To obtain the RIPDES permits, Invenergy must address the requirements of the RIPDES Regulations and ensure compliance with the Rhode Island Stormwater Design and Installation Standards Manual ("Stormwater Manual"). Board 1B at 18. Invenergy filed a Stormwater Construction Permit and Water Quality Certification with DEM, which includes SESC plans and analysis of proposed stormwater management practices. *Id.*; Invenergy 93G. DEM is processing this application as part of Invenergy's Wetlands Application review. Board 1B at 18. The record supports the conclusion that CREC will meet all applicable requirements:
 - a. CREC's stormwater plans are designed to meet, at a minimum, local and State requirements, and on-site storage of oil and hazardous materials will be conducted in accordance with all federal, State and local requirements and, therefore, will have no measurable impact on groundwater or surface water in the area. Board 1B at 18; Board 4A at 23-27; Board 4B at 6-9; Invenergy 41 at 4.
 - b. Invenergy agreed to take the following measures to protect groundwater and surface water: (a) manage stormwater in accordance with DEM's Stormwater Manual; (b) provide source control best management practices ("BMPs") to prevent and/or minimize the use or exposure of pollutants into stormwater runoff at the site and release; (c) develop a Spill Prevention Control and Countermeasures ("SPCC") plan; (d) design fuel oil storage tanks and associated appurtenances to meet State and local regulations and codes, including DEM's Oil Pollution Control regulations; and (e) implement dewatering, if necessary, to control surface or subsurface water during construction, which would be specified under the RIPDES permit. Invenergy 41 at 4-6; Mar. 12, 2019 Tr. at 138:14-144:14 (Jacobs and Riordan), 176:20-177:24 (Riordan stating, "Invenergy has actually gone above and beyond what the standard in the stormwater manual is by some amount."), 192:3-194:15 (Riordan), 201:12-203:23, 267:12-269:20 (Jacobs

33

expert, Mr. Brayton, acknowledged that CREC's long-term traffic impacts are minimal. Mar. 12, 2019 Tr. at 90:9-24 (Brayton).

and Riordan).

- 59. If CREC complies with the requirements of the applicable laws and regulations, DEM will issue a Wetlands Permit which will include authorization to discharge under the RIPDES permits, and will include approval for the construction, the proposed stormwater management practices and other applicable terms and conditions. Board 1B at 14-15; Feb. 5, 2019 Tr. at 211:12-212:3 (Swallow); Mar. 12, 2019 Tr. at 272:17-273:9 (Jacobs and Riordan); Mar. 21, 2019 Tr. at 30:9-13, 50:1-18, 52:1-11 (Horbert). The "issuance of a permit indicates that DEM has determined that the nature and scope of the proposed activities are within standards for acceptable environmental impact established by State and federal laws and regulations." Board 1B at 14-15; Mar. 21, 2019 Tr. at 53:5-54:7 (Horbert).⁵⁴
- 60. DEM's issuance of CREC's RIPDES permits constitutes a finding that CREC's groundwater and surface water impacts do not present unacceptable harm to the environment.

 Board 1B at 15; Mar. 21, 2019 Tr. at 53:5-54:7 (Horbert).

vi. Wetlands

- 61. Invenergy must obtain its Wetlands Permit from DEM as well as a Clean Water Act Section 404 permit from ACOE to alter wetlands on the site. Board 1B at 13; Invenergy 10, 93G. Both permits are exempt from the Board's jurisdiction. R.I. Gen. Laws §42-98-7; Board 1B at 13; Invenergy 10, 93G.
 - 62. To obtain the Wetlands Permit, Invenergy must establish that CREC complies

⁵⁴ Mr. Hevner did not contradict Mr. Hershberger's conclusion that CREC would not impact groundwater or surface water. Instead, Mr. Hevner requested that Invenergy analyze whether piping water to the Facility or whether on-site wells could be reliably used to supply process water to the Facility. Notably, the use of on-site wells has the potential to reduce the overall yield of individual neighboring wells and/or the combined well system. Invenergy 42 at 4-9; Feb. 5, 2019 Tr. at 224:17-232:17 (Hevner).

with the federal Clean Water Act, the Rhode Island Freshwater Wetlands Act, DEM Freshwater Wetlands Regulations, Rhode Island Soil Erosion and Sediment Control regulations, and Rhode Island Stormwater regulations. Board 1A. at 3; Invenergy 10, 93G; Mar. 21, 2019 Tr. at 27:15-21; 52:1-11 (Horbert).

- 63. It is undisputed that the overall Spectra site encompasses 730 acres. CREC's property will be 67 acres, and construction of the Facility will only result in clearing approximately 36 acres, of which 9 acres will be restored. Invenergy 93G. Following restoration of CREC's temporary impacts, permanent impacts will be: 4,910 square feet to the riverbank, 53,584 square feet to perimeter, and 1,172 square feet to biological wetland (totaling 1.37 acres). Invenergy 93G, Exhibit 2, Table 5-1.⁵⁵
- 64. If CREC complies with the requirements of the applicable laws and regulations, DEM will issue a Wetlands Permit. Board 1B at 15; Mar. 21, 2019 Tr. at 52:1-11 (Horbert). The "issuance of a permit indicates that DEM has determined that the nature and scope of the proposed activities are within standards for acceptable environmental impact established by State and federal laws and regulations." Board 1B at 14-15; Mar. 21, 2019 Tr. at 53:5-54:7 (Horbert). DEM's issuance of CREC's Wetlands Permit also indicates that the nature and scope of CREC's wetlands impacts do not present unacceptable harm to the environment. Board 1B at 14-15; Mar.

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⁵⁵ By using Algonquin Lane instead of the woods road, CREC has significantly reduced its permanent impacts to jurisdictional wetlands. If CREC continued to use the woods road to access the Facility, it would have resulted in 1.21 acres of permanent riverbank wetland impact, 1.15 acres of permanent perimeter wetland impact and .5 acres of permanent biological wetland impact, for a total of 2.86 acres of permanent impact to jurisdictional wetlands. Invenergy 93D, Exhibit 3, Table 5-1. In summary, there has been a 94% reduction to biological wetland impacts; 7% increase in perimeter wetland impacts due primarily to widening and stormwater infrastructure improvements for Algonquin Lane; 77% reduction of 100-foot riverbank wetland impacts and 100% reduction of 200-foot riverbank wetland impacts. Invenergy 93G, Exhibit 2, Table 5-1.

21, 2019 Tr. at 53:5-54:7 (Horbert).

65. Mr. Ringler is a professional wetland scientist. His testimony is both credible and uncontested (the Objectors did not provide any evidence on wetlands impacts).⁵⁶

vii. Noise

- 66. There are no Rhode Island regulations or guidelines that govern noise. The Town's noise ordinance has a daytime single number equivalent maximum of 53 dbA and a maximum non-daytime limit of 43 dbA. Town of Burrillville General Ordinance, §16-39.
- 67. It is undisputed that the nearest residence from the Facility is 2,300 feet away and that the site is buffered from residences. Aug. 15, 2018 Tr. at 57:9-20 (Pimentel); Dec. 5, 2018 Tr. 158:1-8 (Hessler).
- 68. Invenergy has committed to maintaining an equivalent sound level of 43 dbA at the nearest residential property during all normal operating conditions, including startup and shutdown. Dec. 5, 2018 Tr. at 112:1-10 (Attorney Blazer); Apr. 2, 2019 Tr. at 84:10-16 (Niland).
- 69. The Town's and Invenergy's noise experts, Mr. Hessler and Mr. Hankard, agreed that CREC can meet 43 dbA. Dec. 5, 2018 Tr. at 78:8-17 (Hankard); 159:19-24; 161:13-20

⁵⁶ Mr. Zemba testified that "there was a wetland person that was to review all the wetland applications", yet the Town never presented a wetlands witness. Mar. 20, 2019 Tr. at 94:18-95:8; see also Mar. 13, 2019 Tr. at 120:17-21 (Zemba). It is well-settled that a litigant's unexplained failure to produce an available witness who would be expected to give material testimony on the litigant's behalf permits a fact finder to draw an inference that, had the witness testified, the testimony would have been adverse to the litigant. Ret. Bd. Of Employees Ret. System of Rhode Island v. DiPrete, 845 A.2d 270, 294 (R.I. 2004); Myles v. Women & Infant Hosp., 504 A.2d 452 (R.I. 1986); Belanger v. Cross, 488 A.2d 410, 412-413 (R.I. 1985); Conlin v. Greyhound Lines, Inc., 120 R.I. 1, 6 n.3 (1978); Anderson v. Friendship Body & Radiator Works, Inc., 112 R.I. 445, 450 (1973). Mr. Zemba, testifying as a biodiversity witness, was obviously relying on the wetlands expert that the Town had engaged but failed to present. Therefore, an inference should be drawn that the Town's wetlands expert would have provided testimony adverse to the Town, specifically that CREC would obtain a Wetlands Permit and would not cause unacceptable harm to jurisdictional wetlands.

(Hessler); Town 26, Tab 5C. DOH's noise witness also acknowledged that, based on the nighttime noise standards published by the World Health Organization, the noise inside the homes along Wallum Lake Road (closest to the Facility) would be equivalent to "total silence". Mar. 20, 2019 Tr. at 137:4-139:22, 141:15-145:15, 148:22-160:2 (Byrns).

70. In *In Re OSP*, OSP "offered to guarantee an equivalent sound level of 43 dbA at the nearest residential property . . ." *Id.* at 10. The EFSB determined that "the OSP proposal to in effect guarantee no more than an equivalent of 43 dbA sound level at the nearest residence provides substantial protection to neighboring property owners." *Id.*

viii. Traffic

- 71. Invenergy's experts, Ms. Maureen Chlebek and Mr. Robert Smith, prepared a traffic impact assessment which concluded that, overall, CREC will have minimal impact on the study area roadways and intersections. Invenergy 93B, Exhibit 2 at 31; *see also* Invenergy 8A, Appendix E.⁵⁷
- 72. Invenergy updated its traffic impact analysis to account for using Algonquin Lane, instead of the woods road, for access to CREC's site. Invenergy 196. The updated analysis concluded that using Algonquin Lane reduces conflict points and only results in benefits.

 Invenergy 196; Feb. 7, 2019 Tr. at 166:9-17 (Chlebek).
- 73. The Town's and Invenergy's traffic experts, Mr. Todd Brayton and Ms. Chlebek, agree that the long-term operational traffic impacts will be negligible. Feb. 7, 2019 Tr. at 171:18-

37

⁵⁷ The Town's traffic expert did not perform his own traffic assessment, and admitted that he did not take issue with the methodology used. Feb. 5, 2019 Tr. at 196:8-19 (Attorney McElroy); Mar. 12, 2019 Tr. at 87:23-90:8 (Brayton).

22 (Chlebek); Mar. 12, 2019 Tr. at 87:23-90:24 (Brayton).⁵⁸

- 74. Short-term construction traffic impacts will be mitigated by hiring police details for certain high-volume intersection(s) and incorporating traffic control measures, as required by DOT as a condition of Invenergy's PAP.⁵⁹ Invenergy's and the Town's witnesses agree that it is appropriate for Invenergy to implement a construction traffic management plan after it hires an EPC contractor, when construction is imminent. Mar. 12, 2019 Tr. at 39:2-40:5 (Smith); 98:21-102:14 (Brayton). Invenergy agreed to do so. *See supra* Section F.
- 75. All relevant State agencies concluded that the Project will not negatively impact the State's transportation system. Board 2B;⁶⁰ Board 3B. DOT testified that Invenergy's proposed water supply plan will not negatively impact State roads and highways and that its PAP review includes its traffic analysis and review of CREC. Feb. 5, 2019 Tr. at 198:17-199:1 (Oullette). Accordingly, if DOT issues Invenergy a PAP for its revised application using Algonquin Lane, instead of the woods road, that will constitute a finding that CREC will not cause negative traffic impacts during construction or during operation.

ix. Wastewater Disposal

76. CREC's generated wastewater will be trucked to a licensed publicly owned

⁵⁸ The Town's water supply witness, Mr. Hevner, testified regarding possible traffic impacts of trucking water to CREC, but admitted that he is not a traffic engineer or qualified traffic expert. Feb. 5, 2019 Tr. at 216:17-23.

⁵⁹ Invenergy also agreed to mitigate any road damage if construction traffic damages Town roads. Invenergy 190; Feb. 5, 2019 Tr. at 186:1-187:9, 191:3-9 (Pristawa and Oullette); Mar. 12, 2019 Tr. at 96:16-97:4 (Brayton). This Board previously noted that, although traffic during construction "may cause temporary impacts", "the majority of construction will take place during normal working hours, will not be different from the traffic associated with any other larger construction project and will end after the construction is completed." *In Re OSP* at 8.

⁶⁰ Statewide Planning found that the Project is consistent with SGP Element: Transportation 2035. Board 2B at 15.

treatment works ("POTW") for treatment and disposal. Invenergy 15 at 12-14.

- 77. The U.S. Environmental Protection Agency ("EPA") has developed pre-treatment standards for new power plants discharging to a POTW that are designed to prevent discharge of any pollutant into a POTW that interferes with, passes through or is otherwise incompatible with the POTW. Invenergy 15 at 13; 40 C.F.R. §423.17. It is undisputed that CREC will meet EPA's pre-treatment standards. Invenergy 15 at 13; Feb. 5, 2019 Tr. 157:9-158:9, 159:22-160:23 (Bacon). Further:
 - a. CREC's wastewater quality will be comparable to the concentrations of chemical constituents normally present in water supplied from Providence Water, except for Total Suspended Solids, Iron, Oil & Grease and Biochemical Oxygen Demand. EPA pretreatment standards for new power plants discharging to a POTW do not include pretreatment standards for these four constituents as they are readily removed by a POTW. Feb. 5, 2019 Tr. at 155:7-156:24 (Bacon).
 - b. The relevant State agency, DEM, concluded that the wastewater will be "treated and disposed of in accordance with applicable regulations such that there would be minimal if any impacts associated with disposal." Board 1B at 17.⁶¹

x. Biodiversity

78. CREC's impacts to biodiversity within jurisdictional wetlands (including biological wetland, associated buffer perimeter wetland and riverbank wetland areas) will be addressed by DEM (and ACOE through Section 404 of the federal Clean Water Act) through the Wetlands Permit. R.I. Gen. Laws §42-98-7; Board 1B at 13; Invenergy 10, 93G; Mar. 21, 2019 Tr. at 59:22-60:3 (Horbert). As discussed above (¶61-65), DEM's issuance of CREC's Wetlands Permit will constitute a finding that CREC's wetland impacts within DEM's

⁶¹ The only objection to CREC's wastewater disposal proposal is that Invenergy has yet to identify the specific licensed POTW. Mr. Bacon explained that a POTW cannot be identified until after construction but before operation, when a licensed POTW will have an opportunity to inspect the Facility, the sources of the wastewater within the Facility, treatments provided and the completed wastewater collection and treatment system. Feb. 5, 2019 Tr. at 107:1-113:7, 123:7-20 (Bacon).

jurisdiction do not present unacceptable harm to the environment. Board 1B at 14-15; Mar. 21, 2019 Tr. at 53:5-54:7 (Horbert).

- 79. The acreage to be used by the Project is addressed above (¶63). CREC's permanent impacts to nonregulated upland areas are approximately 27 acres. *See* Invenergy 93G.
- 80. CREC's site remains under private ownership and, pursuant to the Zoning Ordinance, multiple types of development are allowed on this property. ⁶² Board 2B at 21 and 2C at 9; Aug. 15, 2018 Tr. at 122:3-123:15 (Pimentel); Mar. 26, 2019 Tr. at 100:16-23 (Osenkowski). ⁶³
- 81. Mr. Ringler testified that TNC's publicly available data identified a pre-existing "break" near CREC which already blocks wildlife flow and, therefore, CREC does not create a pinch point, as one already exists. Invenergy 210; Jan. 31, 2019 Tr. at 182:16-184:24 (Ringler).
- 82. DEM confirmed that it is appropriate to use DEM's wetlands approach of "avoid, minimize and mitigate" when reviewing CREC's impacts on non-jurisdictional land areas. Board 1B at 15; Mar. 21, 2019 Tr. at 142:5-22 (Gray); Mar. 26, 2019 Tr. at 92:7-15 (Osenkowski). In

⁶² As long as wetlands are not impacted, Spectra could clear and build—by right—any number of intensive uses. Aug. 15, 2018 Tr. at 122:3-123:15 (Pimentel); Mar. 20, 2019 Tr. at 96:8-97:8 (Zemba); Zoning Ordinance §17-31, Use Table; *see also In Re OSP* at 7 (noting the importance of the fact that land use in the area near the proposed plant was not exclusively residential). The Wildlife Action Plan, which is incorporated into Land Use 2025, encourages municipalities to enact local regulations to protect biodiversity because of the lack of state level regulation, but the Town has failed to do so. Mar. 26, 2019 Tr. at 141:23-146:21 (Osenkowski).

⁶³ The term "unacceptable harm to the environment" is not defined in the EFSA or Rhode Island case law. However, absent the EFSA, the Town would treat this Project as a Land Development Project under its Subdivision Regulations. R.I. Gen. Laws §45-24-47. The Subdivision Regulations do not mention or require a multi-season wildlife assessment, unlike other municipalities that have adopted regulations addressing biodiversity. Tiverton Subdivision Regulations, Article X, §23-53(II)(b)(6)(consideration of "habitats of endangered wildlife"), §23-54 (lands unsuitable for development include land where building is prohibited due to "habitats of species of state concerns"); Attachment 13, No. 10 (areas of significant resources; wildlife habitat).

order to comply with that approach, projects should, among other things, minimize their footprint to the extent practicable, implement best management practices, implement environmental training and monitoring during construction, implement time of year restrictions for cutting and clearing and restore temporary impacts. Jan. 31, 2019 Tr. at 130:13-132:2 (Ringler); Mar. 13, 2019 Tr. at 97:5-98:1 (Zemba); Mar. 21, 2019 Tr. at 60:24-61:17 (Horbert), 147:8-15 (Gray). Invenergy has agreed to implement all of these measures in order to avoid, minimize and mitigate impacts. Mar. 21, 2019 Tr. at 61:18-21 (Horbert). Invenergy's proposal includes the following:

- a. Invenergy's mitigation proposal includes permanent conservation and preservation of two environmentally valuable properties the Sweet Hill Farm Property (Plat 144, Lot 19) and the Alles Property (Plat 21, Lot 5 and Plat 38, Lot 2), which in total represent approximately 300 acres of conservation land. Invenergy 93G, Exhibit 4.
- b. DEM requires conservation and preservation of only 99 acres to mitigate CREC's wetlands impacts. Invenergy 93G, Exhibit 4 at 1. The remaining conservation and preservation of approximately 200 acres are proposed to mitigate CREC's impacts to any upland areas outside of DEM's jurisdiction. Invenergy 93G, Exhibit 4.
- c. The Sweet Hill Farm Property is adjacent to and complements the Black Hut Management area; is in the same watershed as CREC; has similar characteristics to those that would be impacted by CREC; and approximately 12% of the total site constitutes delineated wetlands. Board 2B at 21 and 2C at 9; Invenergy 93G, Exhibit 4 at 5; Jan. 31, 2019 Tr. at 142:14-143:23 (Ringler); Mar. 21, 2019 Tr. at 64:2-9 (Horbert).⁶⁴ The Alles Property is comprised of forested habitat, adjacent to CREC, which comports with DEM's prioritization of land acquisition and conservation on parcels in the immediate vicinity of a site. Board 1A at 22; Invenergy 93G, Exhibit 4 at 11-16; Mar. 26, 2019 Tr. at 93:1-9 (Osenkowski).
- d. Invenergy minimized the Project's permanent impacts to onsite habitat (jurisdictional and non-jurisdictional) and associated biodiversity by: (1) no longer using the woods road, and instead using a temporary construction access road and Algonquin Lane for permanent access; ⁶⁵ (2) retaining the current low

41

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⁶⁴ Developers recently expressed interest in acquiring and clearing the Sweet Hill Farm site to build a solar facility. 93G, Exhibit 4 at 10.

⁶⁵ Mr. Zemba conceded that there "would be some benefits" with using a temporary access road and then Algonquin Lane during operation. Mar. 13, 2019 Tr. at 97:1-11 (Zemba).

road profile to reflect existing conditions with traversable side slopes along much of the roadway so as to not pose a potential barrier to wildlife movements; (3) proposing retaining walls along portions of the temporary and operational phase of the access roads; (4) including a large 26-foot natural bottom, arch culvert to allow unimpeded flow of water, aquatic habitat connectivity, and access for wildlife movement under the temporary access road; (5) placing the operational phase access road entirely outside the wildlife corridor identified in the Wildlife Action Plan; (6) fencing only the power block, thus allowing for unrestricted wildlife movement around the Facility; (7) restricting the time frames for tree cutting and vegetation removal to avoid the breeding season of most wildlife; (8) restoring and replanting the temporary construction road and entire staging area; (9) committing to a ten-year monitoring and management plan for both wetland and upland restoration areas; (10) providing 100% stormwater treatment of the improved Algonquin Lane (where no stormwater treatment currently exists); (11) implementation of the previously approved Interstate Reliability Project Wetland Invasive Species Control Plan; (12) minimizing the impact of light trespass by lowering intensity, controlling direction of illumination and minimizing the spectrum of emitted light; and (13) retaining an environmental monitor throughout construction whose responsibility will be to oversee construction and monitor activities, including the installation and maintenance of soil erosion and sediment controls, and compliance with all federal, State, and local permit commitments. Invenergy 93G, Exhibit 2, at 46, 51 and 88; Jan. 30, 2019 Tr. at 145:17-147:3 (Osenkowski); Jan. 31, 2019 Tr. at 148:6-154:7 (Ringler); Mar. 26, 2019 Tr. at 107:22-109:8, 164:2-165:15, 166:22-168:7 (Osenkowski).

- 83. For the Wetlands Application, Invenergy's experts prepared a biological inventory report consistent with DEM's comments. Invenergy 92B and 213; Mar. 21, 2019 Tr. at 62:23-63:2, 77:21-78:5 (Horbert). DEM provided direct feedback on the biological inventory methodology and did not request that the survey be multi-season or multi-year. Invenergy 213; Mar. 26, 2019 Tr. at 111:4-15 (Osenkowski). 66
- 84. DEM's original advisory opinion requested that a biological inventory be multi-season and multi-year. Board 1A at 20. However, DEM's supplemental advisory opinion recognized that the uplands are not regulated and that the wetlands regulatory construct of avoid,

42

⁶⁶ DEM has no regulations, requirements or guidelines for a biological inventory. Mar. 26, 2019 Tr. at 110:6-8 (Osenkowski).

minimize and mitigate should be followed. Board 1B at 15; Invenergy 213.

- 85. These positions are internally inconsistent. Mr. Jason Osenkowski supported a "no-build" scenario, yet Acting Director Terrence Gray acknowledged the lack of upland regulation and urged the use of the recognized methodology for evaluating unacceptable harm to the environment. Despite his preference for a "no-build" scenario, Mr. Osenkowski agreed with Mr. Gray. *Supra* ¶82; Mar. 21, 2019 Tr. at 142:5-21 (Gray); Mar. 26, 2019 Tr. at 175:22-177:5 (Osenkowski).⁶⁷
- 86. Far more consistent with Mr. Gray's testimony, and DEM's overall position, Statewide Planning concluded that CREC does not conflict with SGP Elements that relate to biodiversity. Board 2B and 2C. CREC will be consistent with the Rhode Island Forest Resources Management Plan as long as it receives all permits, because the Plan "recognizes that private development will occur and that the appropriate control of such development is through State and municipal regulation." Board 2B at 21 and 2C at 9; CLF 11. CREC does not conflict with SGP Element: A Greener Path because CREC's location is not identified as a "mapped component of the State's Greenspace and Greenways Plan." Board 2B at 17 and 2C at 9; CLF 13. CREC is not inconsistent with SGP Element: Ocean State Outdoors because CREC "does not prevent the State from building the planned network of greenspaces and greenways or improving its system of outdoor recreation facilities and conservation areas." Board 2B at 20 and 2C at 9; CLF 12. Most important, Statewide Planning rejected the "no-build" position taken by certain witnesses, pointing out that, "[The Rhode Island Forest Resources Management Plan] does not,

⁶⁷ Mr. Osenkowski, was asked several times whether CREC would cause unacceptable harm to the environment. Mar. 26, 2019 Tr. at 172:12-178:19 (Osenkowski). He responded that it would have "negative impacts." *Id.* Eventually he did state that he thought it would cause unacceptable harm, but conditioned his statement on an unsupported notion that there are alternatives for the location of CREC. *Id.*

however, establish policies for the outright prohibition of the development of forested lands. Private land owners have the right to use and develop their forested lands until such time that direct conservation acquisitions are made or formal land management regulations are enacted through appropriate public channels at the state or local level." Board 2B at 22.

87. Invenergy has taken every possible measure to avoid, minimize and mitigate its impacts. There is no practicable alternative location for CREC due to the Project's need to be near existing gas and transmission facilities – a benefit from its location noted by Statewide Planning. Simply stated, applying the balancing that is required by the EFSA, and taking all circumstances into account, CREC will not cause unacceptable harm to biodiversity. Invenergy 1A at 29-114; 58A at 9-11; Board 2B at 17-23; Board 2C at 9.⁶⁸

xi. Visual

- 88. Invenergy's expert, Mr. Gordon Perkins⁶⁹, conducted a visibility and visual impact assessment. Invenergy 91C. Based on the viewshed analysis, only one percent of the five-mile study area surrounding the proposed Facility could potentially have views of some portion of the proposed Facility. Dec. 5, 2018 Tr. at 51:6-12; 56:24-57:4 (Perkins).
- 89. Invenergy lowered the stacks' height from 200' to 196', and the stacks will not be lit. Invenergy 1A at 11, Invenergy 91C; Dec. 5, 2018 Tr. at 51:13-19, 52:17-24 (Perkins). There will be a 1,800' vegetative buffer between CREC and Wallum Lake Road. Aug. 15, 2018 Tr. at

⁶⁸ The Objectors' witnesses, Mr. Zemba and Mr. Comings, took a "no-build" position, asserting that *any* development on the subject property would cause unacceptable harm to the environment, regardless of Invenergy's measures to avoid, minimize and mitigate impacts. Feb. 7, 2019 Tr. at 91:10-15 (Comings); Mar. 13, 2019 Tr. at 109:9-11 (Zemba); Mar. 20, 2019 Tr. at 92:17-19 (Zemba). Mr. Zemba's testimony regarding biodiversity devolved into sheer speculation. Mar. 13, 2019 Tr. at 136-137, 141-142; Mar. 20, 2019 Tr. at 30-96.

⁶⁹ Mr. Perkins previously testified before this Board in *In Re The Narragansett Electric Company (Southern Rhode Island Transmission Project)*, SB-2005-01.

57:9-20 (Pimentel); Mar. 26, 2019 Tr. at 99:16-19 (Osenkowski).⁷⁰

90. The relevant State agency advisory opinion supports Invenergy's visual assessment. Board 2A at 20 ("The Program finds that visual impacts caused by the construction and operation of the Project will be relatively limited.").⁷¹

xii. Hazardous Materials - Emergency Response and Prevention

- 91. On-site storage of hazardous materials will be conducted in accordance with all federal, State and local requirements. Invenergy 41 at 4. Invenergy agreed to implement all of DOH's recommendations and develop a SPCC Plan that will address the on-site storage of hazardous materials, associated training and any emergency response procedures. Board 4A at 25-26; Board 4B at 8-9; Invenergy 41.
- 92. Invenergy also agreed to implement all of DOH's recommendations specifically regarding storage of aqueous ammonia, including preparing a Risk Management Plan ("RMP") to address the potential consequences of accidental/emergency releases, as well as implementing additional measures to minimize the potential for any release. Board 4A at 23-26; Board 4B at 7; Invenergy 31 at 11-13.⁷²
- 93. DOH concluded that implementation of its recommendations as well as the strategies identified by Invenergy "would provide appropriate protections for minimizing the risk

⁷⁰ This Board previously held that, "Even a 300 foot vegetated buffer between the energy facility and the less intense residential use would serve to lessen the opportunity to change neighboring land use to commercial and industrial and therefore would serve to maintain the rural character of the area." *In Re OSP* at 7.

⁷¹ The Town conceded that CREC's visual impacts will be minimal. Jul. 24, 2018 Tr. at 136:15-20 (Walker); Town 28 at 17-18.

⁷² The Town admitted that "the proposed 'facility-wide RMP-like hazard analysis' constitutes an act of good faith by the CREC design team and exceeds the Standard of Care required by the proposed facility configuration." Town 26, Tab 4F at 6.

of accidental releases or incidents involving hazardous or flammable materials at or in transit to or from the proposed CREC facility." Board 4B at 9.⁷³

xiii. EMF

- 94. Invenergy's expert, Mr. William Bailey, conducted an assessment of CREC's EMF impacts and concluded that the levels of EMF will not cause unacceptable harm to the environment or to public health. Invenergy 1A, Section 6.11 and Appendix F; Invenergy 18 at 3-8; Invenergy 91A, Exhibit 7.
- 95. CREC's estimated increased EMF strength does not exceed existing standards set by international organizations for whole body exposure to the general public. Board 4A at 4. EMF exposures in all areas beyond the right-of-way do not exceed health-based standards. Board 4A at 4.
- 96. DOH found that, "EMFs have not been demonstrated to create health risks—acute or otherwise—at the levels generated by the transmission lines in question" and, therefore, "the health impact of CREC attributable to EMFs is negligible, and may in fact be non-existent." Board 4A at 7; Board 4B at 4.⁷⁴

xiv. Lighting

97. Invenergy's expert, Mr. Trevor Hollins, conducted a lighting assessment and prepared a technical memorandum regarding CREC's light mitigation measures and industry design best practices that Invenergy will use to minimize CREC's light impact on surrounding

⁷³ CLF did not present any evidence regarding this issue. The Town admitted that, "The information presented by the CREC design team adequately addresses how operations at the proposed CREC facility would limit the possibility of a release of oil or hazardous materials to the environment." Town 26, Tab 4F at 2.

⁷⁴ The Town and CLF did not present any evidence contradicting the conclusion that CREC's EMF impacts will be negligible or non-existent.

human, plant and animal life. Invenergy 44; Invenergy 91C.⁷⁵

98. DEM and DOH's lighting witnesses (Mr. Osenkowski and Mr. Michael Byrns) acknowledged that Invenergy filed visual assessment and lighting plans with the Board, but neither of them had reviewed those submittals. Board 1A at 14-15, Board 1B at 6-7; Board 4A at 31-32; Board 4B at 11; Invenergy 91C; Jan. 30, 2019 Tr. at 137:2-141:10, 142:1-145:15 (Osenkowski); Mar. 20, 2019 Tr. at 164:10-168:12 (Byrns). When shown the visual assessment and lighting plans, Mr. Byrns agreed that Invenergy's lighting minimization measures would alleviate concerns. Mar. 20, 2019 Tr. at 167:17-168:12 (Byrns).

D. <u>ISSUE 4: Whether CREC will enhance the socio-economic fabric of the State.</u>

- 99. It is undisputed that CREC will create hundreds of jobs and generate well over \$1 billion in economic development in Rhode Island from 2018-2036. Invenergy 76B; RIBCTC 1; RIBCTC 3; RIBCTC 10.
- 100. It is also undisputed that CREC will benefit the Town financially, as Invenergy will pay the Town tens of millions in taxes. Invenergy 141-3.
- 101. The Town's and Invenergy's property value experts, Mr. Walker and Mr. MaRous, agreed that CREC will not negatively impact property values during operation. Jul. 24, 2018 at 168:14-169:24 (Walker), 71:5-72:3 (MaRous); Town 28. Invenergy has also executed a

⁷⁵ CREC's design incorporates three methods of minimizing lighting impacts: (a) lowering intensity; (b) controlling direction of illumination; and (c) minimizing the spectrum of emitted light, resulting in minimal light impacts. Invenergy 44 at 4-8.

⁷⁶ Mr. Osenkowski is "not a light engineer or an expert on impacts related to all species of wildlife based on different wavelengths of light, light designs, etc." Jan. 30, 2019 Tr. at 141:11-24 (Osenkowski).

⁷⁷ The only opposition witness who sought to present any evidence on lighting impacts was Mr. Comings, in the context of his position that the Facility should not be built under any circumstance. But he admitted that he is not a lighting expert and that he did not review Invenergy's visual assessment or lighting plans. Feb. 7, 2019 Tr. at 115:22-116:1 (Comings).

property value guarantee agreement with the Town, which addresses "the possibility" that there may be impacts during construction. Invenergy 141-2; Jul. 24, 2018 Tr. at 174:5-20 (Walker).

- 102. Statewide Planning determined that CREC will have an "overall positive socioeconomic impact", finding that CREC:
 - will reduce regional wholesale capacity and energy prices and the Project will lower electricity costs for Rhode Island consumers;
 - will have a positive impact on the State's businesses;
 - will result in positive revenue benefits to the State;
 - will have a positive impact on the Town of Burrillville's municipal revenue;
 - is not likely to result in any significant population changes within the Town of Burrillville:
 - will not unfairly impact federally-protected populations;
 - will have no significant impact on the number of housing units that exist within the Town of Burrillville;
 - will have little to no impact on school and library services;
 - may have a slightly increased demand on routine EMT, fire, and police personnel for purposes of coordination of emergency plans and services;
 - is likely to have minimal to no impact on any solid waste management services that the Town may provide; and,
 - visual impacts caused by the construction and operation of the Project will be relatively limited.

Board 2A at 45.⁷⁸

E. ISSUE 5: Whether construction and operation of CREC is consistent with the SGP.

103. Statewide Planning found that the Project is consistent with the SGP, acknowledging that the SGP focuses on "wise use and conservation" and that the SGP also recognizes the importance of development for the wellbeing of society in terms of housing, jobs and "particularly with regard to our need for viable energy sources both over the long-term as well as the immediate future." Board 2A at 46; Board 2B at 24; Board 2C at 9-10; Aug. 15, 2018 Tr. at 105:6-106:4 (Pimentel).

⁷⁸ Statewide Planning further found that neither the revised water supply plan nor the permitting delays changed its conclusion that CREC will have an overall positive socio-economic impact on Rhode Island. Board 2B at 24; Board 2C at 10.

- 104. Statewide Planning's original advisory opinion found that CREC was consistent with the following SGP elements: (a) Energy 2035; (b) Rhode Island Rising: A Plan for People Places and Prosperity; (c) Land Use 2025: Rhode Island's State Land Use Policies & Plan; (d) State Housing Plan; (e) Transportation 2035; (f) Rhode Island Water 2030; (g) State Historical Preservation Plan; (h) The Cultural Heritage and Land Management Plan for Blackstone Valley National Heritage Corridor; and (i) Rhode Island Goals and Policies. Board 2A at 24-25, 46; Board 2B at 11.
- 105. Statewide Planning's supplemental advisory opinion found that CREC was consistent with the following SGP elements: (a) Rhode Island Water 2030; (b) Transportation 2035; (c) Forest Resources Management Plan; (d) Urban and Community Forestry Plan; (e) Ocean State Outdoors: Rhode Island's Comprehensive Outdoor Recreation Plan; (f) A Greener Path: Greenspace & Greenways for Rhode Island's Future; and (g) Water Quality 2035: RI Water Quality Management Plan (newly adopted). Board 2B at 11.⁷⁹

F. Proposed Conditions.

106. The Zoning and Planning Boards, the Building Inspector and State agencies suggested that certain conditions be imposed on Invenergy by the Board if it approves the Project. Town 26, 27, 29, 30; Board 4A, 4B. Invenergy is in agreement with the conditions set forth in **Attachment B**.

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⁷⁹ Statewide Planning addressed Rhode Island Water 2030, Transportation 2035 and Water Quality 2035: RI Water Quality Management Plan in the original and supplemental advisory opinions. Board 2A and 2B. Statewide Planning determined that the following elements are not applicable to the Project: (a) Rhode Island Strategic Housing Plan; (b) Solid Waste 2038: Rhode Island's Solid Waste Management Plan; (c) State Airport Systems Plan; (d) Rhode Island Rail Plan; and (e) Waterborne Transportation Plan. Board 2B at 11, 24. Statewide Planning's second supplemental advisory opinion concluded that its original findings of consistency remain valid. *See* Board 2C at 9. Neither the Town nor CLF provided any evidence contradicting the conclusion that CREC is consistent with the SGP. Invenergy 63 and 64.

IV. **CONCLUSION**

For all of the foregoing reasons, and the voluminous record developed in this proceeding, Invenergy requests that its license application be granted.

Respectfully submitted,

INVENERGY THERMAL DEVELOPMENT LLC By its Attorneys,

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Dated: May 17, 2019

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CERTIFICATE OF SERVICE

I hereby certify that a true copy of the within Post-Hearing Memorandum on behalf of Invenergy Thermal Development LLC was served via e-mail to all the individuals listed on the attached service list on this 17th day of May, 2019.

/s/ Alan M. Shoer_

ATTACHMENT A

TOWN OF BURRILLVILLE

April 9, 2018

Energy Facility Siting Board 89 Jefferson Boulevard Warwick, RI 02888

To the Energy Facility Sitting Board

Re: Invenergy Application, Docket SB 2015-06

On December 11 and December 22, 2017, the Town of Burrillville (the "Town") signed on to two letters submitted by the Conservation Law Foundation, addressing three matters that were then pending at the Federal Energy Regulatory Commission (FERC) that pertained to Invenergy. The subject letters contained statements with respect to the then pending FERC proceedings. Some statements have been misconstrued to suggest that, if Invenergy had prevailed in the FERC proceedings, Rhode Island rate payers would have been burdened with paying millions of dollars more per year than they are paying presently. This is not the case. In addition, the Town did not at any time intend to suggest that Invenergy was violating any tariff.

Further, the FERC proceedings have been concluded, and therefore the issues raised in the subject letters are moot. Accordingly, the Town hereby withdraws its execution of the subject letters.

Very truly yours,

Michael R. McElroy, Esq.

Special Counsel

Town of Burrillville, Rhode Island

ATTACHMENT B

If the Rhode Island Energy Facility Siting Board ("Board") grants Invenergy Thermal Development LLC's ("Invenergy") license, Invenergy has agreed to comply with the following conditions:

- (1) Use the existing Algonquin Gas Transmission compressor station access road (Algonquin Lane) during operations.
- (2) Comply with the 43 dbA noise limitation during normal operations, including startup and shutdown.
- (3) Perform a compliance test (by the owner or Engineering, Procurement and Construction ("EPC") contractor) to verify that the contract conditions on noise have been satisfied.
- (4) Establish and implement traffic management and emergency response enhancement and financial support for the state and Town of Burrillville ("Town") roads impacted by the Clear River Energy Center ("CREC" or "Project" or "Facility"), including, but not limited to, commitments from Invenergy to (1) repair all roads damaged by Invenergy, and (2) work with the Town to financially participate in the redesign of the intersection of Church Street and High Street in order to increase the turning radius for large trucks, if the Town could obtain control of the private property.
- (5) If any of the trucks (suppliers, deliveries, etc.) traveling on state roads are not within the legal weight limitations, insure that an overweight permit is obtained from the Rhode Island Department of Transportation prior to any travel.
- (6) Implement a construction traffic management plan after it hires an EPC contractor, when construction is imminent.

- (7) Establish clear, written procedures for periodic inspection, testing, storage and maintenance of the integrity of the ammonia containment area and the functionality of passive controls and sensors.
- (8) Establish clear written procedures for the periodic inspection, testing, storage and maintenance of all equipment, controls and sensors related to the storage and use of hydrogen at the Facility to ensure that they are functioning appropriately.
- (9) Implement 24 hour noise monitoring of CREC using on-site (within the plant fence line) monitors.
- (10) Prepare and implement a Risk Management Plan in accordance with the United State Environmental Protection Agency's General Duty Clause.
- (11) Prepare and implement a Spill Prevention, Containment and Countermeasure Plan in accordance with 40 CFR Part 112.
- (12) Prepare and implement an emergency response plan and procedures which include training and refresher training of Project staff responsible for implementing emergency response as well as training in the use of personal protective equipment.
- (13) Provide the Town and local fire departments with the construction and operations employee waste management and spill response training protocols for review 120 days prior to the initiation of either construction or operations.
- (14) Coordinate with local emergency responders regarding emergency response (Pascoag, Harrisville, Nasonville and Chepachet). This coordination should include the identification of and coordination with the nearest hazardous materials response team.

 Emergency responders should be provided with full information about the quantities and locations of chemicals stored on site and of transport routes and procedures, as well as the results

of a worst-case-scenario. Provide training to local emergency responders on how to respond to chemical accidents.

- (15) Coordinate with the Town to update the Burrillville Hazard Mitigation Plan 2015 to include CREC prior to the storage of ammonia on site.
- (16) Use ultra-low sulfur diesel ("ULSD") during maintenance testing or upon direction from ISO-NE only, not solely for economic reasons.
 - (17) Inform the Town when CREC is operating on ULSD.
 - (18) Ensure that clean fill is being used for construction activities at the site.
- operating life of the Project, establish a telephone number hotline for the general public to call with any complaints or questions. The hotline number shall be publicized in order to ensure that the general public is aware of the hotline number. The hotline number shall be conspicuously posted at the Project site and at the operator's office in the Town. Each call shall be logged by the operator and such log shall identify the name, address and reason for the call. The operator shall provide the designated Town representative with the call log on a monthly basis and upon reasonable request, to the extent allowed by law, and the operator shall retain copies of the log for a minimum of 2 years. The operator shall respond to all complaints within a reasonable time, not to exceed 72 hours, and shall take necessary actions to resolve all objectively verified complaints.
- (20) During the construction of the Project the operator shall maintain updated contact information on file with the designated Town representative for addressing complaints related to construction activities. The operator shall designate a contact person who will respond to inquiries from the designated Town representative. Once the Project has reached commercial

operation following the conclusion of construction activities, the operator shall maintain permanent contact information with the designated Town representative, including a designated representative of the operator along with a phone number and e-mail address and a 24-hour emergency contact phone number. The operator shall also cause a company representative to attend all regular monthly Town business meetings.