#### STATE OF RHODE ISLAND ENERGY FACILITY SITING BOARD

INVENERGY THERMAL DEVELOPMENT LLC'S:APPLICATION TO CONSTRUCT THE CLEAR:RIVER ENERGY CENTER POWER PLANT IN:BURRILLVILLE, RI:

#### <u>RHODE ISLAND OFFICE OF ENERGY RESOURCES'</u> <u>POST-HEARING BRIEF</u>

#### I. INTRODUCTION

The Rhode Island Office of Energy Resources ("OER") hereby submits this post-hearing brief in the above referenced docket. As explained herein, the Clear River Energy Center ("CREC" or the "Project") is anticipated to provide societal greenhouse gas ("GHG") emissions reduction benefits during its operating life. These benefits are likely to decline over time as more efficient resources and technology types are developed and integrated into the grid. The extent to which these expected diminishing GHG emissions benefits will align with broader environmental policy goals in the future, namely, achievement of the GHG emissions reduction targets as set forth in the Resilient Rhode Island Act, is unclear. To optimize CREC's anticipated GHG reduction benefits and to ensure that the Project's medium- and long-term operations align with the Resilient Rhode Island Act, OER respectfully asks the Energy Facility Siting Board (the "Board") to attach the following conditions to a license should one be issued: (i) Invenergy Thermal Development, LLC ("Invenergy") must commence construction of CREC within three years of the issuance of a license; (ii) Invenergy must comply with a declining annual emissions cap that aligns with the Resilient Rhode Island Act's 2035 and 2050 emissions targets; and (iii) Unless an extension is granted by the State of Rhode Island (the "State") or unless otherwise required by law, CREC's operations cease by December 31, 2050.

#### II. BACKGROUND

On October 29, 2015, Invenergy submitted an application with the Board to construct and

operate CREC, a combined-cycle electric generating facility to be located in Burrillville, Rhode Island. On November 16, 2015, the above referenced docket was opened for the purpose of considering Invenergy's application. On January 12, 2016, a preliminary hearing was convened to determine the issues to be considered by the Board in evaluating Invenergy's application. On July 19, 2018, the Board commenced the final hearing. On April 2, 2019, the final hearing concluded, and the parties were permitted to file post-hearing briefs in advance of a final decision. Accordingly, OER submits this post-hearing brief in advance of the Board's final decision.

#### III. ARGUMENT

The record supports, if not requires, the inclusion of license conditions that will optimize CREC's anticipated GHG reduction benefits and ensure that the Project's medium- and long-term operations align with the Resilient Rhode Island Act, R.I. Gen. Laws § 42-6.2-1 et seq. Accordingly, OER respectfully asks the Board to include the following license conditions: (i) Invenergy must commence construction of CREC within three years of the issuance of a license; (ii) Invenergy must comply with a declining annual emissions cap that aligns with the Resilient Rhode Island Act's 2035 and 2050 emissions targets; and (iii) Unless an extension is granted by the State or unless otherwise required by law, CREC's operations cease by December 31, 2050.

### A. The Board is expressly permitted to include the license conditions sought by OER.

The Energy Facility Siting Act ("EFSA") expressly allows the Board to include conditions when issuing a license for a major energy facility. "The decision may be issued requiring any modification or alteration of the proposed facility, <u>and may be issued on any condition the board</u> <u>deems warranted by the record</u>, and may be issued conditional upon the applicant's receipt of permits required by federal law." Emphasis added. <u>See</u> R.I. Gen. Laws § 42-98-11(c). In this case, the record warrants the inclusion of the license conditions sought by OER. As explained

herein, these conditions will optimize CREC's anticipated GHG reduction benefits and ensure that the Project's medium- and long-term operations align with the Resilient Rhode Island Act.

#### 1. A license condition that requires construction of CREC to commence within three years is warranted because CREC's GHG reduction benefits will be most impactful in the near-term and will diminish over time.

Through its clean energy policies, Rhode Island continues to promote the increased development and penetration of clean energy resources, including energy efficiency and renewable generation resources. See OER 1, p. 8, lines 15-17. Eventually, GHG emitting generating facilities like CREC will be increasingly displaced by renewable resources. See September 18, 2018 Transcript, p. 160, lines 1-20. The State is eager to reach such a point and its progress towards a carbon-free electric system has been greater than expected. See April 2, 2019 Transcript, p. 46, lines 6-10; p. 47, line 23 - p. 48, line 24; p. 51, lines 15-22. However, Rhode Island is not there yet. See September 18, 2018 Transcript, p. 163, line 18 - p. 164, line 15.

Currently, the State is in an intermediate or transitional period during which a highly efficient gas-fired plant like CREC, despite its reliance on fossil fuels, will help achieve the State's GHG reduction targets by displacing generation from less efficient and higher-emitting resources. See OER Supplemental Advisory Opinion, p.11; and September 18, 2018 Transcript, p. 217, line 20 - p. 219, line 13. It is probable that CREC's operations, at least in the near-term, will continue to benefit the State as generation from facilities that are higher-emitting than CREC will continue to be on the margin for displacement for the foreseeable future. See September 18, 2018 Transcript, p. 217, line 20 - p. 219, line 13. However, CREC's GHG reduction benefits will diminish over time. See OER Supplemental Advisory Opinion, pp. 18-19 and September 18, 2018 Transcript, p. 160, lines 1-20. This is because renewable resources and more efficient plants will continue to penetrate the grid and, therefore, generation that CREC will displace will be less-

emitting and more efficient than the generation it would displace today. <u>See</u> Id.; September 18, 2018 Transcript, p. 219, lines 6-13; and January 22, 2019 Transcript, p. 85, lines 4-16. Accordingly, from a GHG standpoint, it is beneficial for CREC to come online as soon as possible.

A condition that requires Invenergy to begin construction of CREC within three years of the issuance of a license will help the State realize CREC's near-term GHG reduction benefits. It also protects the State against CREC becoming a "phantom plant" which is when a developer waits for market conditions to improve before building the plant. See January 23, 2019 Transcript, p. 82, lines 3-16; March 21, 2019 Transcript, p. 157, line 8 - p. 158, line 12. As acknowledged by Invenergy, three years is a reasonable time to allot for construction of CREC to begin. See March 21, 2019 Transcript, p. 158, lines 8 - 12. Hence, OER respectfully asks the Board to include the following license condition: Invenergy must commence construction of CREC within three years of the issuance of a license.

## 2. A license condition that requires Invenergy to comply with an annual emissions cap is warranted because it advances the purposes of the Resilient Rhode Island Act.

As explained above, the record substantially demonstrates that CREC's near-term operations will provide GHG reduction benefits. However, forecasting GHG emissions attributable to CREC's medium- and long-term operations is challenging, and Invenergy's modeling failed to extend out to the pertinent years associated with the State's GHG reduction goals (2035 and 2050). See September 18, 2018 Transcript, p. 79, line 20 - p. 80, line 3; p. 176, line 19 - p. 177, line 20; and R.I. Gen. Laws § 42-6.2-2. As Invenergy stated, the further out a model goes, the higher the risk for inaccuracies. "... And if I may, part of the reason that we focused on a limited time period [for emissions modeling] is, as you say, there's a lot that changes. The longer that you go out in time, you have to make more assumptions about what the electricity grid looks like. So we have the ability to forecast out 20 years. It just there's more and more

assumptions you have to make. So that's why we chose to focus on a smaller time period for our analysis." <u>See</u> September 18, 2018 Transcript, p. 89, lines 7-17. Accordingly, there are GHG emissions risks associated with CREC's medium- and long-term projections and operations.

A declining annual CO<sub>2</sub> emissions cap will help mitigate these risks. <u>See</u> January 22, 2019 Transcript, p. 91 line 21 – p. 92, line 6; and March 21, 2019 Transcript, p. 160, lines 12-24. Given the uncertainties as to when CREC's operations may no longer align with the State's GHG emissions goals, it is prudent to align such a declining annual CO<sub>2</sub> emissions cap with the Resilient Rhode Island Act's 2035 and 2050 targets. This approach is consistent with actions taken by the Massachusetts Energy Facilities Siting Board ("MA EFSB"). In the Footprint Power Salem Harbor Development LP ("Footprint") case, the MA EFSB adopted a settlement agreement as part of its final decision that included a declining annual CO<sub>2</sub> emissions cap. <u>See</u> OER 4. This cap aligned with Massachusetts' Global Warming Solutions Act ("GWSA"). <u>See</u> Id. The MA EFSB is Massachusetts' equivalent to the Board and the GWSA's GHG reduction mandates are aligned with the Resilient Rhode Island Act's GHG reduction targets. <u>See</u> January 22, 2019 Transcript, p. 91 lines 7-12. Given the similarities between the Footprint case and the case at hand, it is evident that the adoption of a declining annual CO<sub>2</sub> emissions cap that aligns with the State's GHG reduction targets will be prudent in Rhode Island (as it was in Massachusetts).

OER acknowledges that the record shows some differences between Massachusetts and Rhode Island; and, therefore, the specifics of the declining cap would need to be finalized. OER suggests giving Invenergy ninety (90) days from the issuance of a license to draft a compliance plan for the Board's review and approval.

Finally, we note that Invenergy does not object to complying with a declining annual  $CO_2$  emissions cap similar to the one adopted in the Footprint case. <u>See</u> April 2, 2019 Transcript, p.

159, lines 2-23. Accordingly, OER respectfully asks the Board to include the following license condition: Invenergy must comply with a declining annual emissions cap that aligns with the Resilient Rhode Island Act's 2035 and 2050 emissions targets.

# 3. A license condition that requires CREC to cease operations in 2050, unless an extension is granted by the State or unless otherwise provided by law, is warranted because it will ensure the State maintains flexibility to achieve its GHG reduction goals.

The year 2050 coincides with a critical GHG reduction goal for Rhode Island. Specifically, public policy dictates that the State take measures to reduce GHG emissions by "eighty percent (80%) below 1990 levels by 2050." <u>See</u> R.I. Gen. Laws § 42-6.2-2(a)(2)(i)(C). The State also has GHG reduction targets associated with the years 2020 and 2035. <u>See</u> R.I. Gen. Laws § 42-6.2-2(a)(2)(i)(A) and (B). The State's 2050 target will be the most challenging of the three to meet, meaning significant measures may need to be taken. <u>See</u> January 22, 2019 Transcript, p. 77, lines 1-6. Accordingly, it is prudent for the State to possess flexibility to act.

As set forth above, CREC will provide GHG reduction benefits in the near-term and such benefits will diminish over time. CREC's impact on GHG emissions in the future, particularly beyond 2050, has not been quantified and is unclear. <u>See</u> September 18, 2018 Transcript, p. 30, lines 18-19. As such, there is a risk that CREC's operations beyond 2050 will interfere with future measures that may have been taken by the State to achieve its 2050 carbon reduction targets. An end-life date of 2050 will eliminate this risk. Like the imposition of a declining annual  $CO_2$ emissions cap, this end-life provision also aligns with Massachusetts' decision in Footprint. <u>See</u> OER 4.

OER acknowledges that there may be scenarios in which CREC could provide GHG reduction benefits and/or could be needed to support the region's electric system reliability beyond 2050. To protect against loss to the State or the region, OER recommends CREC be allowed to

seek State approval of an extension of its operations through 2055 by petitioning the Board for such approval and following a transparent evidentiary process to establish one or both of the aforementioned conditions. Hence, OER respectfully asks the Board to include the following license condition: Unless an extension is granted by the State or unless otherwise required by law, CREC's operations cease by December 31, 2050.

## B. Depending on the degree of need for CREC, the license conditions sought by OER may be required to avoid unacceptable harm to the environment.

As set forth above, the record warrants the inclusion of the license conditions sought by OER. However, these license conditions may be more than warranted, they may be required. Depending on the degree of need for CREC, the inclusion of these license conditions may be necessary to avoid unacceptable harm to the environment. As explained below, the degree of need is relevant to the amount of environmental harm the State is willing to accept. See R.I. Gen. Laws § 42-98-1(a). That is, the greater the demonstrated need for a project, the more tolerable the State will be of environmental harm. Conversely, when the demonstrated need for a project is based on deference to the workings of the region's energy markets, any environmental harm may be unacceptable unless such harm is mitigated and coupled with the optimization of environmental benefits.

Under the EFSA, an applicant must show that "[t]he proposed facility will not cause **<u>unacceptable</u>** harm to the environment..." Emphasis added. <u>See</u> R.I. Gen. Laws § 42-98-11(b)(3). The statute's inclusion of the adjective "unacceptable" to describe "harm" implies that an applicant can satisfy this standard despite causing some harm to the environment. Given that the statute does not list specific types of environmental attributes that are acceptable or unacceptable, this standard can be challenging to navigate. However, the EFSA's legislative findings provide guidance to the Board.

The General Assembly highlighted the importance of considering the need for a project in relation to the project's overall impact on the environment. <u>See R.I. Gen. Laws § 42-98-1(a)</u>. The pertinent EFSA provision reads, "the evaluation of proposals must recognize and consider <u>the need</u> for these facilities <u>in relation to</u> the overall impact of the facilities upon public health and safety, <u>the environment</u> and the economy of the state." Emphasis added. <u>See Id</u>. Since the restructuring of the New England power system in 1996, the financial risk associated with licensing a project has shifted away from ratepayers to private developers.<sup>1</sup> However, the environmental risks continue to be borne by the State and its citizens. Accordingly, it is still important for the Board to consider the degree of need for a project as that determination will be relevant to the amount of environmental risk the State is willing to accept.

In the case at hand, the Board appropriately sought updated evidence on the need for CREC which was presented to the Board at the final hearing. This will allow the Board to assess the degree of need for CREC which, in turn, will help the Board determine the acceptableness of any environmental harm that may be caused by CREC. If the Board finds a low degree of need, CREC may have to mitigate any environmental harm and optimize its GHG reduction benefits to avoid causing unacceptable harm to the environment. The optimization of CREC's GHG reduction benefits requires compliance with the license conditions sought by OER.

#### **IV. CONCLUSION**

For the reasons explained herein, OER respectfully asks the Board to include the following license conditions: (i) Invenergy must commence construction of CREC within three years of the issuance of a license; (ii) Invenergy must comply with a declining annual emissions cap that aligns

<sup>&</sup>lt;sup>1</sup> For a description of this power sector evolution, please see <u>Memorandum of Law of the Division of the Public</u> <u>Utilities and Carriers, Office of Energy Resources, and Division of Planning</u>, filed in R.I.P.U.C. Docket No. 4609 on August 18, 2016. The Board rejected the advisory opinion that resulted from this docket but took administrative notice of all the filings.

with the Resilient Rhode Island Act's 2035 and 2050 emissions targets; and (iii) Unless an extension is granted by the State or unless otherwise required by law, CREC's operations cease by December 31, 2050.

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