

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
ENERGY FACILITY SITING BOARD

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

Docket No. SB 2015-06

**Motion of Conservation Law Foundation for the EFSB To Take
Administrative Notice of Invenergy's PUC Brief**

Conservation Law Foundation (CLF) respectfully requests that the Energy Facility Siting Board (EFSB), pursuant to EFSB Rule 1.29(c), take administrative notice of Invenergy's August 18, 2016 Post-Hearing Memorandum in the Public Utilities Commission (PUC) Docket # 4609 (attached).

PUC Docket # 4609 addressed, inter alia, the issue of whether Invenergy's proposed power plant is needed. Invenergy's PUC Post-Hearing Memorandum addresses just that issue at some length, and states, "If CREC [Invenergy] fails to get a CSO in the future it will not be needed . . ." Invenergy Memorandum, at 5 (quoting witness Seth Parker). This statement is not merely probative on a key issue before the EFSB; Invenergy's statement may be dispositive.

CLF anticipates that Invenergy will object to this motion to take administrative notice of Invenergy's own filing on need, because Invenergy's brief contains many statements that Invenergy now wants to run away from, such as: "The need for CREC is determined in the competitive market" (which competitive market has now definitively rejected Invenergy) (page 3); "Invenergy was recently awarded a CSO for 485 MW in FCA-10" (which CSO has now been rescinded by the ISO in a precedent-setting move) (*id.*); "If CREC clears in future FCAs and is

awarded CSOs, it will be needed” (Turbine Two never cleared any FCA, even in those auctions where Turbine Two was not disqualified) (page 5).

Respectfully, the EFSB should not permit Invenergy to run away from its own statements on the key issue of need. Invenergy’s CSO for 485 MW for Turbine One has been terminated by the ISO. Invenergy’s Turbine Two was disqualified from participating in two of the last four Forward Capacity Auctions and failed to clear the auction on both of the two occasions when it was not disqualified. As Invenergy’s own statements make pellucid, these data are highly probative of the fact that Invenergy is not needed.

Accordingly, CLF respectfully requests the EFSB take administrative notice of Invenergy’s August 18, 2016 Post-Hearing Memorandum to the PUC.

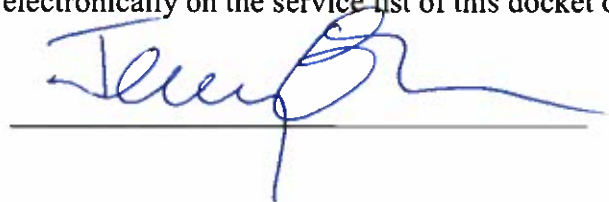
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CERTIFICATE OF SERVICE

I certify that the original and seven hard copies of this document were hand delivered to the Energy Facility Siting Board and served electronically on the service list of this docket on October 5, 2018.



Tab A

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

PUBLIC UTILITIES COMMISSION

IN RE: INVENERGY THERMAL DEVELOPMENT LLC :
APPLICATION TO CONSTRUCT AND : **Docket 4609**
OPERATE THE CLEAR RIVER ENERGY :
CENTER, BURRILLVILLE, RHODE ISLAND :

INVENERGY THERMAL DEVELOPMENT LLC'S POST-HEARING MEMORANDUM

I. INTRODUCTION

Now comes Invenergy Thermal Development LLC (“Invenergy”) and hereby submits its Post-Hearing Memorandum to the Public Utilities Commission (“PUC”). In sum, the evidence in the proceeding established the following:

1) Clear River Energy Center (“CREC”) is needed to meet the reliability needs of the region. The ISO-NE has determined that CREC is needed to meet the reliability needs of the region by awarding a Capacity Supply Obligation (“CSO”) in its recent competitive wholesale capacity auction. Given the ISO-NE’s expectations for large scale retirements of existing and older generation resources, the full projected capacity proposed by CREC is needed. CREC is also needed to support the growing needs of the renewable energy generation industry. CREC is further needed because it will displace older, more polluting generation in the region, thereby leading to modernization of the electric generation infrastructure, resulting in lower system heat rates and improved air quality and lower emissions.

2) CREC is cost-justified to the consumer consistent with the object of ensuring that the construction and operation of CREC will be accomplished in compliance with all of the requirements of the laws, rules and regulations. The project is cost-justified because a competitive wholesale market process awarding CREC a CSO has ensured, and future auctions will ensure, that the capacity prices and the energy prices for CREC’s electric generation are cost-justified. The highly competitive Forward Capacity Market (“FCM”) auction process is designed to ensure that prices are set to maximize social surplus, which includes cost effectiveness to the consumer. CREC is further beneficial and cost effective to Rhode Island ratepayers because it will lead to millions of dollars of meaningful and material capacity and energy savings.

3) Cost effective, efficiency and conservation opportunities cannot provide an appropriate alternative to CREC. Efficiency and conservation opportunities will continue to be pursued regardless of CREC and should not be viewed as a sufficient or appropriate alternative. Given the age of a large percentage of the

existing generation fleet and the need to replace older, existing generation due to retirements, the amount of electric generation required by ISO-NE to maintain reliability is greater than what could be created by efficiency and conservation measures. Additionally, ISO-NE accounts for efficiency and conservation opportunities with the FCM.

4) CREC will deliver reliable power and will have access to adequate and dependable natural gas supply. CREC will be equipped with the most efficient General Electric ("GE") H-class turbines and will utilize natural gas as a fuel through a dedicated lateral to the main Algonquin Gas Transmission gas supply line.

II. ANALYSIS AND DISCUSSION

A. **The Competitive Market Will Determine Whether CREC Is Necessary To Meet The Needs Of The Region.**

1. ***Legal Standard.***

In 1996, Rhode Island passed the Utility Restructuring Act ("URA"), "effectively repeal[ing] by implication the much older need assessment provision of the [Energy Facility Siting Act]."¹ The PUC long ago recognized that "[i]n the new era of competition, new generating plants are built . . . as merchant plants, where the risk of selling electricity and the cost of plant construction are placed upon private investors rather than ratepayers." *Id.* Due to the dramatic changes introduced by the URA, the Energy Facility Siting Board ("EFSB" or "Board") has relaxed the level of scrutiny required for its "need" analysis: "[T]he heightened level of scrutiny for determining need, once absolutely necessary when ratepayers alone faced the cost of additional generation facilities, is no longer required."²

Applying this precedent, "the need for generating plants is performed by the free market, and therefore the Commission certifies 'need' to the EFSB utilizing liberalized standards."

¹ *In Re Indeck-North Smithfield LLC Need Assessment to Construct A Gas-Fired Power Generating Facility ("Indeck")*, Docket No. 3094, Order 16388 (Sept. 6, 2000).

² *In Re Tiverton Power Associates Limited Partnership ("Tiverton Power")*, Docket No. SB-97-1, Order 33 (Mar. 25, 1998) (quoting PUC Advisory Opinion in *Tiverton Power*). See also *In Re Rhode Island Hope Energy Limited Partnership ("Hope Energy")*, Docket No. SB-98-1, Order 35 (May 24, 1999) (recognizing the restructured industry may have repealed by implication the older statutory need analysis required by the EFSB).

Indeck, Docket No. 3094, Order 16388. The PUC's "need" and "cost-justification" analysis should therefore proceed according to this well-established legal precedent and allow the competitive markets to function as designed to determine the supply mix and the competitively determined prices necessary to meet the regional demands for electricity generation.

2. The Need For CREC Is Determined In The Competitive Market.

ISO-NE manages the competitive energy market under the authority of Federal Energy Regulatory Commission ("FERC"). ISO-NE evaluates the market and sets prices that maintain system reliability while encouraging new efficient generation in the zones where needed. See Exhibit A, B, C & D of Invenergy Exhibit 5. The results of the Forward Capacity Auction ("FCA") held in 2015 (FCA-9) indicated that there was insufficient generation capacity in the region, thus leading to higher prices. Higher clearing prices in FCA-9 signaled a need for more generation capacity in the region. See Invenergy's Response to the RI Department of Environment, No. 3-14. CREC is a reasonable response to this market signal for the need for new generation resources in the region.

Invenergy responded to the market signals for the need for new generation in the import constrained Southeast New England Zone ("SENE"). Invenergy was recently awarded a CSO for 485 MWs in FCA-10. See Exhibit D of Invenergy Exhibit 5. The award of a CSO by itself is compelling evidence of need. See *id.*; Burrillville Exhibit 2, No. 3-42. The next will be another FCA in February 2017, and the award of a CSO in FCA-10 supports the argument that Invenergy will be well positioned to meet the need for more generation capacity, at no risk to the ratepayer. See Joint Exhibit 1, at 15.

The ISO-NE FCM is designed to assure resource adequacy, generate new resources when needed and provide fast start, flexibility and other performance characteristics to meet the market's operational requirements. See Joint Exhibit 1, 10. According to the ISO-NE Press

Release, “[i]t’s important to have a capacity market that places an appropriate value on the product to maintain an adequate supply.” Exhibit D of Invenergy Exhibit 5.³ Similarly, Rhode Island is within an “import constrained zone” called SENE where more generation is needed to meet demand and where there are not enough resources to meet the demand. *See* Invenergy Exhibit 16, at 25. Consequently, because of the constraints on the transmission system to supply needed electric generation from other regions to SENE, ISO-NE established that more energy generation within the SENE import constrained zone is required. CREC is exactly the type of generation that ISO-NE will need to ensure reliable electricity is supplied where needed in this import constrained zone. *See* Joint Exhibit 1, at 12-16; Invenergy Exhibit 4, at 3-4.

Contrary to the arguments of other parties, the fact that ISO-NE awarded capacity commitments over the Net Installed Capacity Requirement (“NICKR”) target is an indicator that CREC is needed. Under the system-wide sloped demand curve, which was reviewed extensively by a robust stakeholder process before being adopted by ISO-NE and approved by FERC, ISO-NE may clear an FCA in excess of the NICKR to ensure reliability in the region and to benefit consumers. *See* Joint Exhibit 1, 12. As explained by Mr. Parker “[m]ore capacity resources would benefit consumers by lowering the probability of blackouts and other service interruptions. The sloped demand curve construct recognizes this reliability value of such capacity.” *Id.* FCM “provide[s] consumers with greater assurance that the region’s power system will have sufficient capacity to keep the lights on, and that those resources will perform when called on.” Exhibit D of Invenergy Exhibit 5.

3. Both Units Of CREC Are Needed To Replace The MWs Projected To Retire.

According to ISO-NE, approximately 10,000 MW or “30% of the region’s generating

³ The FCA-10 “auction procured the resources needed to keep the lights on in New England at a price lower than last year’s auction More than 850 megawatts of *new generating capacity* cleared the Greater Boston, Southeast Massachusetts and *Rhode Island zone where the resources are needed most.*” *Id.* (emphasis added).

capacity could be gone by 2020.” Invenergy Exhibit 8, at 11. In less than a decade, the elimination of up to 30% of the region’s generation capacity suggests that there is a real need for new generation resources. The need to ensure there is adequate supply to meet future demand in the context of retirements of existing generation resources is an important factor to consider when determining need for a new generation project.⁴

Notably, ratepayers are not at risk if the second unit does not clear. Seth Parker (“Mr. Parker”) testified that “[i]f CREC clears in future FCAs and is awarded CSOs, it will be needed. If CREC fails to get a CSO in the future, it will not be needed and Invenergy would be at risk, not Rhode Island customers.” Joint Exhibit 1, at 52. With that said, Mr. Parker did testify that “the chances of CREC unit 2 clearing in FCA 11 will be enhanced if it has a lower capital cost (due to avoiding costs for shared plant facilities that will be constructed for CREC unit 1) that lowers its capacity price bid.” *Id.* at 15.

4. *While A Capacity Supply Obligation Is Strong Evidence Of Need, The Act Does Not Require A Capacity Supply Obligation Or Procurement Contract As A Prerequisite To Establish Need.*

Pursuant to the Act, the Board shall issue a decision granting a license only upon finding that Invenergy has shown that “[c]onstruction 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.” R.I. Gen. Laws § 42-91-11(b)(1). While possessing a CSO is strong evidence of need, the Act does not require a procurement contract or a CSO as a necessary prerequisite to establish need for a new generation resource. For example, in *Tiverton Power* and *Hope Energy*, the Board did

⁴ See *Hope Energy*, Docket No. SB-98-1, Order 35 (stating that “[t]he New England Power Pool currently has approximately 25,000 MW interconnected to the electric power grid, but much of this supply is either oil, coal, or nuclear fueled. Most of these units are aging . . . or have a limited lifespan Given an improving economy, in which electric demand is growing more rapidly than previously forecast, while electric supply is constrained by the closures or outages of several major nuclear facilities, need has been established”). ISO-NE’s forecasts for gross peak-electric demand is growing during this time, and the projections for retirements are well recognized. Invenergy Exhibit 8, at 11.

not require that procurement contracts were a condition precedent to establish need.⁵

Not having a CSO for the total 1000 MWs proposed by CREC should similarly not disqualify the project. Also, the ISO-NE process is designed to allow (and to encourage) new projects to file for and begin the process to obtain permits and licenses before participating in future capacity auctions.

5. CREC Is Needed To Support Renewable Energy Resources.

As confirmed by Mr. Parker, the addition of CREC will not interfere with Rhode Island's renewable resource programs. See Joint Exhibit 1, at 45. Moreover, confirming the testimony of Invenergy's witness Ryan Hardy ("Mr. Hardy") and John Niland ("Mr. Niland"), Mr. Parker identified that even if more renewables are built in New England, their inherent intermittency would increase ISO-NE's need for flexible and responsive resources, like CREC. *Id.* at 51. In other words, highly efficient natural-gas generation, such as CREC, can aid in the integration of new renewables to the New England power grid. See Invenergy Exhibit 7, at 25 ("[p]aradoxically, the operating characteristics of these renewable resources—which are different than traditional power plants—will increase reliance on fossil-fuel-fired natural gas generators."); Exhibit 8, at 11.

6. CREC Is Needed To Displace The Higher Pollution of Older Power Plants.

CREC will also displace older, less efficient and more polluting energy generators, an important consideration in any "need" analysis.⁶ The PUC has previously stated that "[e]ven if sufficient generation exists, replacement of inefficient, old plants with clean, efficient new plants will have the effect of improving the overall total effectiveness of generation and constitutes 'need.'" *Indeck*, Docket No. 3094, Order 16388. Because CREC requires less fuel per unit of

⁵ See *Hope Energy*, Docket No. SB-98-1, Order 35; *Tiverton Power*, Docket No. SB-97-1, Order 33.

⁶ See *Tiverton Power*, Docket No. SB-97-1, Order 33 ("All these units are aging, and are either polluting or suspect for other reasons. Tiverton Power intends to produce cost-competitive, clean power is needed in Rhode Island.").

energy generated than less efficient competing generators, CREC will displace less efficient and less environmentally-friendly resources that are currently dispatched on the power system. *See* Invenergy Exhibit 4, at 10. CREC is necessary for system reliability and will help lower regional carbon emissions, further proving need.⁷ *Id.*

B. CREC Is Cost- Justified To The Consumer Consistent With All Of The Requirements Of The Laws, Rules and Regulations.

1. The FCM Process Determined, And Will Continue To Determine, That CREC Is Cost-Justified.

The cost-justification criteria under the Act, R.I. Gen. Laws § 42-98-11(b)(2), must also be reviewed in the context of a deregulated and competitive generation market.⁸ Capacity and energy supplies are procured in the ISO-NE wholesale markets for ultimate retail sale by utilities and other load-serving entities. *See* Joint Exhibit 1, at 28. "The ultimate cost per kilowatt to the consumer will be a market rate, so that the consuming public would never be exposed to the risk of cost overruns."⁹ The FCM system—clearing a surplus—ensures cost efficiency for ratepayers. "[T]he more capacity that clears, the lower the capacity clearing price and the total capacity costs for consumers." Joint Exhibit 1, at 12.¹⁰

The competitive power market determines whether CREC is cost-justified. *See* Joint Exhibit 1, at 24. "If its capacity and energy bids are accepted, CREC will provide and be paid for those products, effectively determining that CREC is cost-justified." *Id.* By clearing the auction and being awarded a CSO, by definition, CREC is cost-justified. After reviewing

⁷ CREC is also needed because the Rhode Island economy will benefit greatly from the project. CREC will create a significant number of jobs and income for Rhode Island workers. RIBTCT Exhibit 1, at 3-4. "Based on preliminary estimates of the size of [CREC] as well as the marketplace at large, [CREC] will probably account for 15-20% of the entire commercial construction market in the State of Rhode Island for two plus years." *Id.* at 3. "[T]he substantial income tax these well-paying jobs generate will provide the State with significant additional income that will allow it to distribute these funds as it sees fit to improve the socio-economic progress of all the citizens of [Rhode Island]." *Id.* at 3-4

⁸ *See Indeck*, Docket No. 3094, Order 16388; Joint Exhibit 1, at 24; Invenergy Exhibit 5, at 2-3.

⁹ *Tiverton Power*, Docket No. SB-97-1, Order 33.

¹⁰ *See also Indeck*, Docket No. 3094, Order 16388, (stating "a surplus of electricity supply could have the effect of stabilizing or possibly reducing the price of electricity for ratepayers").

Invenergy's Data Responses, the DPUC and OER's expert, Mr. Parker, concluded that CREC is cost justified and the evidence supports this determination. *Id.*

2. Rhode Island Consumers Will Benefit From Lower Capacity And Energy Prices.

While the PUC was not asked directly to quantify the ratepayer benefits, the fact that there will be millions of dollars of reductions to the wholesale capacity and energy portions of ratepayer bills is further evidence of consumer cost-justification. The evidence proves that there will be millions of dollars in savings and that these savings will be "material" and "meaningful" for Rhode Island consumers. *Id.* at 36, 38. Importantly, "it must be recognized that *any* savings ultimately realized as a result of constructing CREC will accrue to consumers without shifting investment risk on to them." *Id.* at 36. (emphasis in original).

Mr. Hardy's analysis projects capacity savings of \$170 million in total over four capacity commitment periods. *See id.* at 30; Invenergy Exhibit 5, at 10. Mr. Hardy projects that Rhode Island customers will save \$39.4 million in the FCA-10 delivery year alone (June 2019 through May 2020) due to CREC. *See* Invenergy Exhibit 5, at 9. Even the Conservation Law Foundation's ("CLF") witness, Christopher Stix testified that CREC's capacity savings for this same time period in FCA-10 delivery year could be up to \$36 million. Invenergy submits the upper range of CLF's estimated CREC capacity savings is within 10% of Invenergy's \$39.4 million projected savings. *See* CLF Exhibit 2, at 18.

Capacity savings are just one portion of the ratepayer savings projected. CREC will also contribute to ratepayer energy savings, and these savings are projected to last for many years. CREC's forecasted energy savings are \$41 million for the first four years of the project (2019-2022). *See* Joint Exhibit 1, at 30; Invenergy Exhibit 4, at 13. During Mr. Parker's testimony at the PUC Hearing, he stated that the Rhode Islanders will see a reduction in their energy bills due to CREC. Specifically, he testified that any wholesale energy reductions will pass through to the

consumers and that these savings can be expected to occur over much of the life of the project.

C. Cost Effective, Efficiency And Conservation Opportunities Do Not Provide An Appropriate Alternative To CREC.

Cost effective, efficient and conservation (“EE&C”) opportunities, and even reliance on more renewable resource generation opportunities alone, cannot provide enough supply to satisfy the wholesale energy needs of the region. The recently adopted 2035 – Rhode Island State Energy Plan (“the State Plan”) certainly recognizes that cost effective, efficiency and conservation is critical. See Joint Exhibit 1, at 40.¹¹ Rhode Island electric utilities are already implementing cost-effective effective, efficiency and conservative operations through least-cost procurement, natural gas energy efficiency programs to achieve the full economic potential of cost-effective demand-side reductions. *Id.* at 42.

As stated by Mr. Parker, “under Least-Cost Procurement, annual electric and natural gas energy efficiency programs are developed to achieve the full economic potential of cost-effective demand-side load reductions.” *Id.* at 44. Consequently, “all cost-effective EE&C resources are already being procured in Rhode Island[,]” and “CREC will not hinder the development of cost-effective EE&C opportunities, because National Grid is required to” implement these measures pursuant to the State Plan and other Rhode Island Regulations. *Id.* ISO-NE also accounts for Rhode Island’s effective, efficiency and conservation programs stated in the State Plan. Specifically, the ISO-NE makes passive demand resource adjustments to its long-term load forecast in its system planning studies and incorporates the results in its annual Capacity, Energy, Loads and Transmission (“CELT”), Regional System Plan reports, and in the FCM. *Id.* at 43.¹²

¹¹ Citing the State Energy Plan that stated “[a]s Rhode Island looks ahead to 2035, the State should reaffirm its commitment to leadership in energy efficiency by instituting an economy-wide, all-fuels approach to least-cost resource acquisition.” *Id.* at 41.

¹² Invenergy conducted an alternatives analysis and found that CREC “will facilitate, support and accommodate the addition of more carbon free renewable generation to help Rhode Island meet the stated goals of the Resilient Rhode Island Act.” Invenergy Exhibit 3, at 8. Mr. Niland explained that CREC will “support the development and

D. CREC Will Deliver Reliable Power And Will Have A Dependable Fuel Supply.

Lastly, CREC will both deliver reliable power through highly efficient GE turbines and will have a reliable and dependable fuel supply, through a dedicated ¼ mile lateral to the Algonquin Gas Transmission mainline that will avoid delivery disruptions and provide sufficient natural gas supply. *See* Joint Exhibit 1, at 19; Division Exhibit 3. Dependency on fuel supply is also shown in the supply program proposed by CREC, with firm transportation for one unit and interruptible gas with fuel oil back-up for the second unit.

Mr. Parker summarized the new “pay for performance” program adopted by ISO-NE and approved by FERC to ensure electric generation supply during cold winter days, such as what happened in 2014 during the polar vortex event. *See* Joint Exhibit 1, at 23. CREC’s back-up fuel plan is a response to this “pay for performance” program and is designed to ensure adequate fuel source and generation even during the coldest time of year where there are competing demands for natural gas supply.

III. CONCLUSION

For the reasons articulated above, the PUC should advise the EFSB that CREC is needed and cost-justified to the consumer, and that cost effective, efficiency and conservation opportunities do not provide an appropriate alternative to CREC. The PUC should also advise the EFSB that CREC will deliver reliable power and that there is adequate natural gas supply to support the CREC project.

implementation of more renewable energy generation.” *Id.* Invenergy considered conventional steam turbine cycles, wind generation, solar generation, biomass generation, geothermal technologies and hydropower generation and determined that while the projections call for more of these resources, the limitations on land and other constraints suggest it will take many more years to meet the same MWs of demand that the ISO-NE requires. *Id.* at 11-18. Mr. Niland emphasized that CREC is specifically and carefully designed to meet these future challenges, allowing CREC to fully integrate with the needs of the region by accommodating increasing renewable investments in the future. *See id.* at 18.

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Dated: August 18, 2016

CERTIFICATE OF SERVICE

I hereby certify that on August 18, 2016, I delivered a true copy of the foregoing responses to the Public Utilities Commission via electronic mail to the parties on the attached service list.

/s/ Alan M. Shoer