

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

CONSERVATION LAW FOUNDATION'S RESPONSE
TO TOWN OF BURRILLVILLE'S FIRST DATA REQUESTS

1.1. Please explain in detail what you believe will be the impact on the Rhode Island environment and the costs to Rhode Island consumers if the proposed facility is not built and ISO New England continues to rely on older currently operating power plants.

Response

A. Environment

CLF believes that climate change is the greatest threat to the environment of Rhode Island, the United States, and the world today. It is this belief that led CLF to address the climate change implications of the Invenergy proposal with the testimony of expert witness J. Timmons Roberts.

CLF believes that the carbon-emission impacts if the Invenergy facility is not built would be salutary and beneficial. As stated in Dr. Timmons's Pre-Filed Testimony:

My opinion is very simple, and it can be stated in a single sentence: I believe that building a new 900-megawatt combined-cycle gas-fired electricity-generating plant in Rhode Island would make it impossible for the state to achieve the carbon-emission-reduction goals as set forth in the Resilient Rhode Island Act

Dr. Roberts Pre-Filed Testimony, at page 14, lines 6-9.

More specifically, Dr. Roberts testified that building the Invenergy facility would make it impossible for Rhode Island to meet its 2020 goal of reducing carbon emissions by 10% below 1990 level; and its 2035 goal of 45% reduction by 2035; and its 2050 goal of 80% reduction. Dr. Roberts Pre-Filed Testimony, at page 14, lines 10 - 18.

CLF acknowledges that Invenergy has stated that its proposed plant could reduce carbon emissions in the seven-state area of New England and New York by approximately 1% during

the period 2019-2022. Ryan Hardy April 22 Pre-Filed Testimony, page 16, lines 11-15. However, CLF believes that this analysis is seriously flawed for several reasons.

First and foremost, even if Invenergy's modelling were correct, it only purports to show a small emission reduction for three years. However, by Invenergy's own estimates, its proposed facility would have a useful life of 20 to 40 years, and would therefore continue emitting carbon into the atmosphere for decades after the period of Invenergy's modelling.

Second, the foregoing paragraph must be viewed in the context of the carbon levels that Invenergy's proposed facility would actually emit. As Invenergy's own witness, Mr. Hardy, testified in the PUC Hearing in Docket # 4609 (Invenergy), Invenergy's projected carbon emissions when it is burning only gas would be higher than the current average of all New England electricity generation; Invenergy's projected carbon emissions when it is burning oil would be much higher than the current average of all New England electricity generation; and the annual weighted average of Invenergy's projected carbon emissions (accounting for both gas and oil) would be higher than the current average of all New England electricity generation. [PUC Docket # 4609 July 25 Hearing Transcript, page 134, line 18 to page 142, line 4; see also CLF Exhibit 11 (ISO-New England Electric Generator Air Emission Report), at page 20.]

Third, the foregoing two paragraphs must be viewed in the context that the fuel mix used to generate electricity within the six-state footprint of ISO-NE is getting cleaner (i.e., lower carbon emissions) each year. This is happening for multiple reasons, including the retirement of dirty coal and oil plants and the increasingly rapid build-out of renewable energy generation.

Thus, even if Invenergy's modelling were correct that there would be a 1% reduction of carbon emissions over seven states between 2019 and 2022 if its proposed plant were built: (a) the Invenergy plant would make it impossible for Rhode Island to meet its statutory short-, medium-, and long-term carbon emission-reduction goals; (b) the Invenergy plant would emit more carbon than the current New England average when it burns gas; (c) the Invenergy plant would emit more carbon than the current New England average when it burns oil; (d) building a plant with a 20- to 40-year life expectancy would lock Rhode Island into a fossil-fuel future; (e) at precisely the time when the growth of renewables is reducing overall average of carbon emissions from electricity generation.

In short, in terms of carbon emissions and climate change, the overall environmental effects of the Invenergy plant not being built would be beneficial and salutary – for Rhode Island, for the United States, and for the world.

CLF also notes that Invenergy's modelling artificially refers to a seven-state area, while most air-emissions modelling for New England is based upon the six-state ISO-NE footprint, which operates a single, unitary market. Although there are interconnections between ISO-NE and the

New York ISO, ISO-NE also has other interconnections, such as the Hydro-Quebec Interconnection.

CLF also notes that in its October 28, 2015 transmittal letter to the EFSB, Invenergy disingenuously suggests that 28% of New England's electricity generating capacity is coal and oil, which are dirtier fuels than natural gas. However, in fact, only 6% of New England's electricity is actually produced from coal and oil. See PUC Docket # 4609 (Invenergy) July 25 Hearing Transcript, page 67, line 15 to page 70, line 14.

B. Costs to Consumers

CLF believes that, if the Invenergy plant were built, there may be some small and short-term benefits to electricity ratepayers; and there would certainly be large, long-term harms to ratepayers. Conversely, if the Invenergy plant were not built, there may be some small, short-term costs but there would certainly be larger long-term benefits. CLF underscores the word "may" in the two preceding sentences to emphasize that the ratepayer benefits are speculative rather than certain.

In PUC Docket # 4609 (Invenergy) there was testimony on the impact of the Invenergy proposal to Rhode Island ratepayers. Specifically, there were three expert witnesses on ratepayer impacts: Ryan Hardy for Invenergy; Christopher T. Stix, for CLF; and Seth Parker for the Division of Public Utilities and Carriers (the Division).

Crucially, for purposes of this Data Response, no witness in the PUC proceeding provided any data at all about ratepayer impacts for more than three years, and all three expert witnesses agreed that the greatest economic impact would be in the first year of operation only.

On capacity, Invenergy's witness, Mr. Hardy, estimated that the capacity savings to Rhode Island ratepayers in the first year of operation (corresponding to ISO-NE FCA-10) would be \$42 million. [Hardy April 22 Testimony, page 13, lines 20-21.] CLF's witness, Mr. Stix, estimated the capacity savings to Rhode Island ratepayers in the first year of operation (corresponding to ISO-NE FCA-10) would be between zero and \$36 million. [Stix Pre-Filed Testimony, page 18, line 14 to page 20, line 14.] The Division's witness, Mr. Parker, substantially agreed with Mr. Stix's estimate. [Parker Pre-Filed Testimony, page 35, lines 2-21.]

On energy, Invenergy told the PUC that it anticipated savings of under \$10 million per year for the first three years of operation. [Ryan Hardy April 22 Pre-Filed Testimony, page 13, line 10.] CLF's expert, Mr. Stix, testified that this estimate was wildly exaggerated. [Stix Pre-Filed Testimony, at page 45 line 16 through page 49, line 13.]

Taking energy and capacity together, Seth Parker, the expert witness of the Division, testified that the ratepayer benefits of the Invenergy plant would be “small but meaningful.” [Parker Pre-Filed Testimony, Page 40, line 6.]

Three things must be borne in mind about Mr. Parker’s testimony for the Division: (1) Mr. Parker performed no independent analysis of ratepayer impacts [Parker Pre-Filed Testimony, page 26, lines 20-23]. (2) Mr. Parker was unable to verify much of Invenergy’s data and calculations on supposed, putative ratepayer benefits [Parker Pre-Filed Testimony, at page 27, lines 14-23; page 30, lines 14-22; page 35, lines 22-24; page 38, lines 18-19]. (3) Mr. Parker found that Invenergy had grossly exaggerated the supposed ratepayer benefits [Parker at page 30, line 6; page 32 line 14 to page 35, line 21].

To sum up the preceding six paragraphs, CLF believes that it is possible, but not certain, that there could be small short-term ratepayer benefits if the Invenergy plant is built.

However, there would also be large and certain ratepayer harms if the Invenergy plant is built. This is true for several reasons. First, renewable energy is being built at an ever-increasing rate. Second, the per-kilowatt-hour cost of renewables is steadily dropping. Third, recent ISO-NE market reforms have introduced negative-increment offers into the real-time energy market. Fourth, negative-increment hourly pricing has happened at the same time that wind and other renewables are being made fully dispatchable in the ISO-NE energy market. Under ISO-NE market rules, these fully dispatchable renewable resources are eligible to set clearing price in the real time energy market. The combination of these factors over time will: (a) drive down the hourly clearing price of electricity for all New England ratepayers; (b) increasingly force fossil-fuel generation out of the market; while (c) renewables increasingly set hourly prices and benefit ratepayers.

In this context, maximum ratepayer benefit will be a consequence of accelerated build-out of renewable energy resources in New England, and maximum ratepayer detriment will be caused by building additional fossil-fuel generation.

Note that CLF disagrees with a predicate in Burrillville’s question: “. . . if the proposed [Invenergy] facility is not built and ISO New England continues to rely on older currently operating power plants.” Older currently operating power plants are retiring from the New England market for a variety of reasons, including the fact that they are increasingly uneconomic and because they are approaching the end of their useful life. These dirty, old legacy plants are increasingly being replaced with clean renewable generation. The alternative to the Invenergy plant is not dirty coal and oil plants. The alternative to the fossil-fuel Invenergy plant is clean renewable energy.

1-2. Are any alternative energy projects cost efficient to the consumer in light of the subsidies received by such projects?

Response. Yes.

For purposes of this Response, CLF interprets “alternative energy projects” as “renewable energy projects.”

All energy production in the United States receives governmental subsidies. Oil companies benefit from subsidies such as the foreign tax credit and favorable treatment for expensing of exploration and development costs. The nuclear industry receives a huge public subsidy in the form of the Price-Anderson Act. Some renewable energy generators receive Out-of-Market (OOM) revenue from state Renewable Portfolio Standard (RPS) statutes and/or from federal Investment Tax Credits.

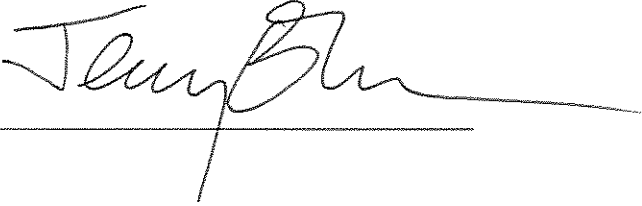
In all of the examples given in the preceding paragraph, the respective governmental subsidies may fairly be viewed as an expression of public policy as enacted by duly elected legislatures. If one were add the value of public-policy subsidies to the cost of renewable energy, then in order to do a fair apples-to-apples comparison, one would have to add public-policy subsidies to the cost of fossil generation and nuclear power. When this is done, renewable energy is emphatically cost effective when compared to conventional and fossil-fuel generation.

In addition, the foregoing takes no account whatever of the social cost of carbon (SCC) emissions. A federal interagency process developed a value for the SSC in 2010 for purposes of complying with Exec. Order 12,866, which mandates cost-benefit analyses of proposed federal regulations. A federal interagency group used three different integrated assessment computer models (DICE, PAGE, and FUND) to arrive at the social cost of carbon. EPA updates the SCC periodically, and the most recent value for the SCC is \$36 per metric ton. CLF notes that on August 8, 2016, this \$36/ton governmental calculation of the social cost of carbon was upheld in a decision handed down by the U.S. Court of Appeals for the Seventh Circuit. Zero Zone, Inc. v. DOE, --- F.3d --- (2016), 2016 WL 4177217.

To sum up, CLF believes that, in a fair apples-to-apples comparison (that is, accounting for governmental subsidies for renewable and to non-renewable energy) renewable energy is “cost efficient to the consumer” (in the words of the Data Request) today – even before taking into account the social cost of carbon. Renewable energy is even more economical when properly accounting for the social cost of carbon at the \$36/ton value set by the U.S. government.

CERTIFICATE OF SERVICE

I certify that the original and ten copies of this this document, CLF's Response to the Town of Burrillville's First Data Requests, were filed with the Energy Facility Siting Board, transmitted by first-class mail, postage pre-paid. In addition, copies of the Motion were served on the entire service list of this Docket via e-mail, as a PDF attachment. I certify that this was done on August 24, 2016.



A handwritten signature in black ink, appearing to read "James Blum", is written over a horizontal line. The signature is fluid and cursive, with a long horizontal stroke extending to the right.