

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**  
**SECOND DATA REQUESTED DIRECTED TO INVENERGY**

- 2-1. What is the anticipated heat rate of Invenergy's proposed facility when it is burning natural gas?
- 2-2. What is the anticipated heat rate of Invenergy's proposed facility when it is burning ultra-low sulfur diesel fuel (ULSD)?
- 2-3. Does Invenergy anticipate burning any oil distillate other than ULSF? If yes, please explain.
- 2-4. In Invenergy's internal documents, including financial pro formas, how many hours per year does Invenergy calculate the proposed facility will run on ULSD or any oil distillate? (If the number of hours per year varies from year to year, please specify the number of hours for each operating year.)
- 2-5. In Invenergy's January 12, 2016 PowerPoint presentation to the EFSB, Slide 24, Invenergy projects \$46 million in "energy cost savings" (not capacity costs) during the first three years of operation.
- (a) For each of the first three years of operation, what assumption was made as to the number of hours during the operating year the plant would be operating at full load equivalent?
  - (b) For each of the first three years of operation, what assumption was made as to the number of hours during the operating year the plant would be burning ULSD?
  - (c) For each of the first three years, what assumption was made as to the number of megawatt-hours of energy the plant would sell into the ISO-NE market?

2-6. In Invenenergy's January 12, 2016 PowerPoint presentation to the EFSB, Slide 24, Invenenergy projects \$23 million in "energy cost savings per year" (not capacity costs) after the first three years of operation.

(a) How many additional years (beyond the first three) did Invenenergy perform this calculation?

(b) For each year referred to in sub-section (a), above, for which "energy cost savings per year" were calculated, what assumption was made as to the number of hours during the operating year the plant was operating at full load equivalent?

(c) For each year referred to in sub-section (a), above, for which "energy cost savings per year" were calculated, what assumption was made as to the number of hours during the operating year the plant would be burning ULSD?

(d) For each year referred to in sub-section (a), above, for which "energy cost savings per year" were calculated, what assumption was made as to the number of megawatt hours of energy the plant would sell into the ISO-NE market?

2-7. (a) In Invenenergy's projections of \$46 million in "energy cost savings" (not capacity costs) during the first three years of operation, please state which of the following plants were included (and which were not included) in the dispatch model for each of Capacity Commitment Periods 10, 11, and 12 : Medway, Massachusetts (for the 200 MW that acquired a Capacity Supply Obligation in FCA-9); Brayton Point 1; Brayton Point 2; Brayton Point 3; Brayton Point 4; Bridgeport Harbor 2; Bridgeport Harbor 3; Bridgeport Harbor 6; Canal 1; Canal 2; Canal 3; Merrimack 1; Merrimack 2; Middletown 2; Middletown 3; Middletown 4; Montville 5; Montville 6; Mount Tom 1; Mystic 7 GT; New Haven Harbor; Newington 1; Norwalk Harbor 1; Norwalk Harbor 2; Schiller 4; Schiller 6; West Springfield 3; Yarmouth 1; Yarmouth 2; Yarmouth 3; Yarmouth 4.

(b) In Invenenergy's projections for energy cost savings (not capacity costs) after the first three years of operation, which of the plants listed in sub-part (a) of this question were included (and which were not included) in the dispatch model for each additional Capacity Commitment Period for which Invenenergy did modelling.

2-8. This question pertains to Invenenergy's statement that it anticipates having "firm natural gas transport for a portion of its natural gas needs." (Invenenergy October 29, 2015 filing, page 119, Section 7.2.2.1.)

(a) Has Invenenergy entered into any contract(s) for firm gas delivery?

(b) If the answer to sub-part (a) is yes, how many such contracts has Invenergy entered into, and how many decatherms per year of firm gas delivery is provided in each one?

(c) If the answer to sub-part (a) is no, how many hours per year of firm gas delivery does Invenergy contemplate?

(d) What premium or discount, if any, does Invenergy believe it will pay per decatherm for its anticipated use of firm gas?

(e) What effect, if any, does Invenergy anticipate that its projected use of some firm gas will have on the number of hours per year the plant will clear in the ISO-NE energy market?

2-9. Does Invenergy anticipate that its contract(s) for firm gas delivered to Burrillville will yield a discount over spot prices (relative to Algonquin City Gate prices) during the months of December through March during Capacity Commitment Period 10 (June 1, 2019 to May 31, 2020) (CCP-10)? If yes, how much do you anticipate in dollars per decatherm, and for how many decatherms of gas?

2-10. Does Invenergy anticipate that its contract(s) for firm gas delivered to Burrillville will yield a discount over spot prices (relative to Algonquin City Gate prices) during the months of December through March during CCP-11? If yes, how much do you anticipate in dollars per decatherm, and for how many decatherms of gas?

2-11. Does Invenergy anticipate that its contract(s) for firm gas delivered to Burrillville will yield a discount over spot prices (relative to Algonquin City Gate prices) during the months of December through March during CCP-12? If yes, how much do you anticipate in dollars per decatherms, and for how many decatherms of gas?

2-12. Invenergy states that its proposed facility will be useful to “balance the variable output from wind and solar resources” because of its “fast-start capability.” (January 12, 2016 PowerPoint, Slide 25.) Please describe in detail the ability of the Invenergy’s proposed plant to provide load following and regulation service to support variable-output resources.

2-13. (a) What is the ramp time for the proposed s plant to go from cold start to full power output?

(b) What is the ramp rate in MW/minute going from cold start to full power output?

(c) What is the air-emissions profile when going from cold start to full power?

2-14. (a) What is the ramp time for the proposed plant to go from warm start to full power output?

(b) What is the ramp rate in MW/minute going from warm start to full power output?

2-15. What is the ramp rate for the proposed plant during normal operations?

2-16. What is the anticipated minimum, normal operation level of the proposed plant?

2-17. What is the lowest load at which the proposed plant will be able to run and still be within the anticipated emission allowances of its Clean Air Act permits?

2-18. This question relates to Invenergy's response to CLF Data Request 1.3, and the worksheets attached thereto.

- (a) Did Invenergy perform the necessary modelling for every hour in the operating years?
- (b) On the first chart appended to this response, which hours of the operating day are included in the column labeled "on peak" and which hours are included in the column labeled "off peak"?
- (c) Did you model every hour of the operating day separately with a unique, different demand level for every hour corresponding to the ISO's load forecast for that hour?
- (d) If yes, state the projected savings during the 20 hours of greatest savings every month, and create a table reflecting projected savings for those 20 hours per month; and a separate table for all other peak hours.

CONSERVATION LAW FOUNDATION,  
by its Attorneys,



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CERTIFICATE OF SERVICE

I certify that the original and ten copies of this Data Request were sent to the Energy Facility Siting Board, by first-class mail postage prepaid. In addition, PDF copies of the Data Request were served electronically on the entire service list of this Docket. I certify that all of the foregoing was done on February 29, 2016.

  
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