

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
ENERGY FACILITY SITING BOARD

IN RE: INVENERGY THERMAL DEVELOPMENT LLC's :
APPLICATION TO CONSTRUCT THE : DOCKET No. SB-2015-06
CLEAR RIVER ENERGY CENTER IN :
BURRILLVILLE, RHODE ISLAND :

DIRECT TESTIMONY OF JAMES A. JACKSON, P.E.
ON BEHALF OF THE TOWN OF BURRILLVILLE

SUMMARY - TESTIMONY OF JAMES A. JACKSON, PE

QUALIFICATIONS: My name is James A. Jackson, I am a Professional Engineer registered in the State of Rhode Island with 31 years of experience designing land development projects.

PURPOSE OF TESTIMONY: As part of the project technical review team for the Town of Burrillville, I am testifying about certain civil engineering issues pertaining to the proposed Clear River Energy Center (CREC), including site layout and stormwater management.

SUMMARY OF FINDINGS & RECOMMENDATIONS:

Wetland Impacts: The proposed development would have significant adverse impacts to wetlands. I recommend that the site layout be revised to reduce wetland impacts, including the reuse of the existing Spectra/Algonquin Access Road instead of the proposed new access road.

Stormwater Impacts: The Stormwater Management Plan and plans supplied with the RIDEM Wetland Application and supplemental information do not adequately address treatment of stormwater run-off. I recommend that Invenergy propose additional treatment methods to reduce total suspended solids (TSS), Total Phosphorous, Total Nitrogen, and bacteria.

Wastewater Impacts: The Water Supply Plan identified a wastewater stream of approximately 1,440 gallon per day (gpd), which will be trucked off-site for disposal. The Plan did not identify where the wastewater will be disposed. I recommend that Invenergy identify the firm that will transport the wastewater and a suitable disposal facility.

1 **Q. Please State your Name and Business Address.**

2 A. My name is James A. Jackson. My business address is 225 Chapman Street, Providence,
3 Rhode Island 02905.

4

5 **Q. Mr. Jackson, by whom are you currently employed and in what capacity?**

6 A. I am employed by CDR Maguire Inc. as a Civil Engineer and Project Manager.

7

8 **Q. Please describe your educational background and your professional experience.**

9 A. I received my Bachelor of Science in Civil Engineering (BSCE) in 1985 from the University
10 of Rhode Island. I am a registered Professional Engineer in the State of Rhode Island and
11 Connecticut as well as the Commonwealth of Massachusetts and the United States Virgin
12 Islands (USVI). I have been involved in civil engineering design for over 31 years.

13

14 **Q. What are your technical specialties?**

15 A. My primary responsibilities are design of sitework for land development projects. Design
16 includes site grading; stormwater analysis and design; utility design; and vehicular and
17 pedestrian access.

18

19 **Q. Have you ever testified as an expert witness before any court or administrative body?**

20 **If so, what was the nature of your testimony?**

21 A. I have testified as an expert witness in the USVI Court on St. Croix. I was an expert witness
22 for the defendant, the United States, in a case regarding an injury that occurred at a National
23 Historic Site.

1 **Q. What is the purpose of your testimony today?**

2 A. I am here to comment on civil engineering issues pertaining to the proposed Clear River
3 Energy Center (CREC) including site layout, stormwater management and wastewater
4 disposal.

5
6 **Q. What materials have you reviewed in this matter?**

7 A. I have reviewed the application that Invenergy submitted to the EFSB for the CREC; The
8 Water Supply Plan submitted to the EFSB on January 11, 2017; the RIDEM Onsite
9 Wastewater Treatment System (OWTS) Application; the RIDEM Wetland Application; and
10 supplemental information submitted to the EFSB including Data Requests submitted by
11 intervenors and Invenergy's responses to these Data Requests.

12
13 **Q. Please summarize the impacts of the proposed CREC within your area of expertise.**

14 A. **Wetlands.** The application and supplemental documents indicate that the project would be
15 built on a 67 acre site on Wallum Lake Road adjacent to the Spectra Energy Gas Compressor
16 Station. The project would permanently and negatively impact approximately 2.7 acres of
17 wetlands with additional negative impacts during construction from laydown areas.

18
19 **Stormwater.** The EFSB application, supplemental documents and the RIDEM Wetland
20 Permit application state that development of the site, including construction of roads,
21 buildings and equipment, will result in an increase to stormwater run-off. The RIDEM
22 Wetland Permit application identifies best management practices (BMP's) to treat and
23 control stormwater run-off in accordance with the "RIDEM Stormwater Design and

1 Installation Standards Manual". With these BMP's the run-off from the project will result
2 in significantly higher concentrations of TSS, total phosphorus, total nitrogen and bacteria.

3
4 **Wastewater.** The Water Supply plan identified a wastewater stream of approximately 1,440
5 gallon per day (gpd), which will be trucked off-site for disposal. The Plan did not identify
6 where the wastewater will be disposed.

7
8 **WETLAND IMPACTS**

9
10 **Q. Is the site layout shown on the plan supplied by Invenergy adequate to avoid negative**
11 **wetland impacts?**

12 A. No. The plans show that there will be significant negative impacts to wetlands due to access
13 road construction and temporary laydown areas. I recommend that the site layout be revised
14 to reduce such impacts to wetlands. I also recommend the use of a shared access road with
15 Spectra Energy/Algonquin that will reduce negative wetland impacts. Tom Hevner of
16 Alares, a subconsultant to CDR Maguire, has further evaluated the wetland issues.

17
18 **STORMWATER**

19
20 **Q. Are the stormwater management practices indicated by Invenergy adequate to treat**
21 **and control stormwater to be generated by the CREC?**

22 A. No. The Stormwater Management Plan and plans supplied with the RIDEM Wetland Permit
23 application include provisions to collect, detain and treat stormwater at the site. The
24 Pollution Calculations Summary on page 8 of the Stormwater Plan indicate substantial
25 increases to pollutants in the stormwater. The Total Suspended Solids (TSS) in the runoff

1 will increase from 400 to over 1,000 percent above the existing values; Total Phosphorus will
2 increase from 100 to over 1,300 percent above existing; the Total Nitrogen will increase from
3 800 to over 1,100 percent of existing; bacteria will increase from 2,300 to over 4,400 percent
4 of existing.

5
6 **WASTEWATER**

7
8 **Q. Does Invenergy have an adequate plan to remove and dispose process wastewater
9 generated by the CREC?**

10 A. No. The Water Supply Plan indicates that the facility will generate approximately 1,440 gpd
11 of process wastewater to be removed from the site in tanker trucks and disposed at a privately
12 owned treatment facility. The plan does not identify what firm will provide the trucking
13 services and a privately owned treatment facility that will accept the wastewater.

14
15 **RECOMMENDATIONS**

16
17 **Q. What are your recommendations?**

18 A. As proposed, I am of the professional opinion that CREC will cause an unacceptable harm
19 to the environment. However, if the EFSB chooses to permit the CREC, then in order to
20 reduce the unacceptable harm, I recommend:

- 21
- 22 • A revised site layout to reduce negative wetland impacts.
 - 23 • Reuse of the existing Spectra/Algonquin Access Road instead of the proposed new access
24 road that will adversely impact wetlands.
 - 25 • That the proposed stormwater treatment system be modified to further remove pollutants
including TSS, Total Phosphorous, Total Nitrogen and bacteria.

1 • That Invenergy identify a wastewater hauler and private wastewater treatment facility that
2 will accept the process wastewater.

3
4 **Q. Are the opinions you have expressed in your testimony based upon your education,**
5 **training, experience and the materials you have reviewed to prepare for this testimony,**
6 **and are those opinions all based upon a reasonable degree of certainty or probability**
7 **in your fields of expertise?**

8 A. Yes.

9
10 **Q. Does this conclude your testimony?**

11 A. Yes.