## STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS ENERGY FACILITY SITING BOARD

IN RE: INVENERGY THERMAL DEVELOPMENT LLC'S
APPLICATION TO CONSTRUCT THE
CLEAR RIVER ENERGY CENTER IN
BURRILLVILLE, RHODE ISLAND

# PRE-FILED DIRECT TESTIMONY OF GORDON PERKINS

(JUNE 30, 2017)

### **SUMMARY**

Gordon Perkins is a Senior Project Manager at Environmental Design and Research, Landscape, Engineering & Environmental Services, D.P.C. and testifies regarding the visual/aesthetic impacts associated with the Project, with regard to the design plans of the Project as proposed. Mr. Perkins, relying on his experience and expertise, the application as supplemented, and the visual analysis, opines that the Project's visual impacts will be minimal and that the Project will not cause unacceptable harm to the visual environment or the public.

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IN RE: INVENERGY THERMAL DEVELOPMENT LLC'S APPLICATION TO CONSTRUCT THE CLEAR RIVER ENERGY CENTER IN BURRILLVILLE, RHODE ISLAND

**DOCKET No. SB-2015-06** 

INVENERGY THERMAL DEVELOPMENT LLC'S PRE-FILED DIRECT TESTIMONY OF GORDON PERKINS, ENVIRONMENTAL DESIGN AND RESEARCH, LANDSCAPE ARCHITECTURE, ENGINEERING & ENVIRONMENTAL SERVICES, D.P.C.

2	I.	INTRODUCTION
5 4 5	Q.	PLEASE STATE YOUR NAME, BUSINESS TITLE AND BUSINESS ADDRESS.
6	A.	My name is Gordon Perkins. I am a Senior Project Manager at Environmental Design and
7	Research, Landscape Architecture, Engineering & Environmental Services, D.P.C., located at 217	
8	Montgomery Street, Suite 1000. Syracuse, NY 13202	

### 9 Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

11 A. My testimony is on behalf of the applicant, Invenergy Thermal Development, LLC

12 ("Invenergy"), in support of its application (the "Application") for a license from the Rhode Island

13 Energy Facility Siting Board ("EFSB" or "Board") to construct the Clear River Energy Center

project in Burrillville, Rhode Island ("Clear River" or "CREC").

# 15 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. My formal education is in Landscape Architecture, and I have prepared visual impact assessments ("VIA") for a variety of projects over the past fifteen (15) years. My area of expertise is mainly in evaluation of the visibility and visual impact of power generation and transmission facilities, and I have completed VIA's for coal, natural gas and nuclear facilities, as well as utility-

scale renewable generation facilities. A detailed description of my educational background and

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- 1 professional experience is included in my CV which was submitted to the Board on September 12,
- 2 2016.
- **Q.** PLEASE DESCRIBE YOUR EXPERIENCE PROVIDING TESTIMONY TO REGULATORY COMMISSIONS, BOARDS, AGENCIES OR AS AN EXPERT.

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- 6 A. I have testified before the New York State Public Service Commission on three separate
- 7 occasions in 2009, 2013 and 2014. Additionally, in 2007, I testified before the Rhode Island Public
- 8 Utilities Commission.
- 9 Q. PLEASE DESCRIBE THE SECTIONS OF THE APPLICATION THAT YOU ASSISTED WITH AND CAN SPEAK ABOUT.

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- 12 A. Section 6.12 (Visual Impacts and Aesthetics) and the nighttime visual assessment report,
- dated January 9, 2017 ("January 9, 2017 Memorandum"), regarding nighttime visual simulations,
- prepared by EDR and filed with the Board on June 19, 2017 as part of Invenergy's Supplemental
- 15 Responses to the Rhode Island Department of Environmental Management's 3<sup>rd</sup> Set of Data
- 16 Requests, Nos. 3-21, 3-22 & 3-57.
- 17 II. <u>ANALYSIS</u>
- 18 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

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- 20 A. My testimony addresses the aesthetic/visual impact associated with CREC, as described in
- 21 Section 6.12 of the Application.
- 22 Q. WHAT DID YOU REVIEW WHEN CONDUCTING YOUR ANALYSIS?

- 24 A. I reviewed a number of State and local databases, including, but not limited to, the Rhode
- 25 Island State Geographic Information System Database ("RIGIS") and the National Register of
- 26 Historic Places in order to identify visual resources of concern within the 5-mile radius visual
- 27 study area. I also reviewed project plans, existing topographic conditions, landscape cover types
- 28 (provided by the USGS, 2011) and actual field conditions with regard to project visibility.

# 1 Q. PLEASE EXPLAIN THE METHODOLOGY UTILIZED WHEN CONDUCTING YOUR ANALYSIS.

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- 4 A. The visual and aesthetics section of the EFSB Application prepared for CREC includes
- 5 identification of visually sensitive resources, characterization of landscape similarity zones,
- 6 viewshed mapping, confirmatory visual assessment fieldwork and visual simulations.

## 7 Q. AFTER CONDUCTING YOUR ANALYSIS, DID YOU MAKE ANY FINDINGS REGARDING CREC'S VISUAL IMPACT?

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10 **A.** Yes.

#### 11 Q. PLEASE SUMMARIZE YOUR FINDINGS FOR THE BOARD.

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Α. Visibility was analyzed within a 5-mile radius study area (five-mile buffer around the proposed facility). The results of the viewshed analysis suggest that one percent (1%) of the 5mile study area could potentially have views of some portion of the proposed facility based on the proposed stacks at a height of 200 feet. Field reconnaissance supported the viewshed analysis and, in fact, suggests that visibility of the proposed facility would be even more limited due to the abundance of tall forest vegetation (i.e. taller and more extensive than assumed in the viewshed analysis). A simulation of the proposed facility suggests that the stacks would be visible from Wilson Reservoir, but the lower profile features of the facility would not be visible. Based on the general lack of visibility throughout the visual study area, it is not anticipated that the facility will result in significant visual impacts. The proximity of the facility entry to the abutting residential properties will result in a change to the views resulting from the removal of forest vegetation. Given the undeveloped nature of the study area, the VIA recommended that Federal Aviation Lights ("FAA") lights, if required on the stacks, should be examined in greater detail to determine potential impacts to night skies. Subsequent nighttime observations concluded that nighttime visibility would be minimal from most locations within the study area. However, the entry road

- to the facility would result in a substantial change to the view from abutting properties due to the removal of forest vegetation and introduction of artificial lighting.

  3 III. <u>ADVISORY OPINION</u>
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  5 Q. HAVE YOU REVIEWED THE TOWN OF BURRILLVILLE PLANNING
  6 BOARD'S ADVISORY OPINION?
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8 **A.** Yes

- 10 Q. THE TOWN HAS REQUESTED THAT INVENERGY UTILIZE AN ACCESS ROAD THAT INVENERGY IS UNABLE TO USE, STATING THAT IF INVENERGY WERE TO USE THIS ALTERNATIVE ACCESS ROAD, IT WOULD "LIMIT THE IMPACT ON . . . VISUAL IMPACTS TO ABUTTING PROPERTIES . . . " (PAGE 20). DO YOU AGREE?
- 15
   16 A. The current configuration of the facility access road will result in substantial visual change
   17 for one or more of the abutting properties on Wallum Lake Road. Removing the road from this
- location would eliminate this impact to those particular properties. However, no substantially
- 19 different entry alternative is available. Consequently, no analysis of alternative entry roads has
- been performed. I am therefore unable to comment on whether this would apply to all abutting
- 21 properties at alternative locations.
- Q. HAVE YOU REVIEWED THE RHODE ISLAND DEPARTMENT OF HEALTH'S
   ADVISORY OPINION?
- 25 **A.** Yes.

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- 26 27 **IV.** <u>PUBLIC COMMENTS</u> 28
- Q. PUBLIC COMMENT RAISED CONCERNS REGARDING VISUAL IMPACTS OF CREC ON MOUNTAIN AREAS IN BUCKHILL. DO YOU HAVE AN OPINION REGARDING THIS CONCERN?
- A. I do. The vegetation viewshed analysis reflects that the Buck Hill Management Area is nearly entirely screened from view of the Project due to dense forest vegetation, with the exception of an approximately 1500 square foot area of cleared field at a distance of approximately 3 miles

- 1 from the proposed facility. Actual visibility from this location was not evaluated during field
- 2 verification. However, based on field observations and review of LIDAR data, it is anticipated
- 3 that the actual tree heights in this area are substantially taller than the assumed 40 foot height used
- 4 in the viewshed analysis model. With this in mind, it is likely that most, if not all of the proposed
- 5 facility would be screened from view within the Buck Hill Management Area.

#### 6 V. <u>CONCLUSIONS</u>

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8 Q. IN YOUR EXPERT CAPACITY, DO YOU HAVE AN OPINION TO A REASONABLE DEGREE OF CERTAINTY REGARDING CREC'S VISUAL IMPACT?

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- 12 **A.** I do. The viewshed analysis and field results confirm that visibility of the facility will be
- very limited. In areas where there is no visibility of the proposed facility, there will be no direct
- visual impact. Generally, in the few areas where the facility is visible, the daytime and nighttime
- visibility/visual impact will be minimal and will not significantly alter the existing scenic quality,
- 16 nor interrupt the enjoyment of the resources within the visual study area. The facility entrance
- 17 will alter the character of the view from the abutting properties due to the proposed clearing of
- 18 vegetation and nighttime lighting. However, as recommended in the January 9, 2017 memo
- 19 regarding nighttime impact, there are several mitigation measures that could minimize those
- 20 impacts.
- 21 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 22 **A.** Yes.