



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF LEGAL SERVICES
235 Promenade Street, 4th Floor, Providence, RI 02908-5767

401-222-6607

TDD 401-222-4462

FAX 401-222-3378

FIRST CLASS MAIL

July 13, 2016

Todd Anthony Bianco
Coordinator
Rhode Island Energy Facility Siting Board
89 Jefferson Boulevard
Warwick, RI 02888

**Re: Invenergy Thermal Development, LLC – Clear River Energy Center
Docket No. SB-2015-06**

Dear Mr. Bianco:

Enclosed for filing in this matter are an original and 10 copies of the Rhode Island Department of Environmental Management's Third Set of Data Requests to Invenergy Thermal Development, LLC. Electronic copies have been sent to the service list.

Should you need any further information, do not hesitate to contact me at (401) 222-4700 ext. 2023. Thank you for your time and attention to this matter.

Best regards,

A handwritten signature in purple ink, appearing to read "Christina Hoefsmit".

Christina A. Hoefsmit, Esq.

enc: RIDEM's Third Set of Data Requests

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 :

THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT'S
THIRD SET OF DATA REQUESTS TO
INVENERGY THERMAL DEVELOPMENT, LLC

MISSING INFO GENERAL:

- 3-1 Provide a project overlay on aerial photographs depicting the general project footprint and associated clearing, including work associated with the proposed power plant itself, substation, utility corridors (including any additional clearing required for the new transmission line/towers along the new ROW from the CREC switchyard to the existing National Grid ROW and along the existing ROW to the Sherman Switching Station), Sherman Road Switching Station expansion, construction laydown and stockpiling areas (including any proposed off-site laydown areas), the access road, the water treatment system proposed at the site of the contaminated well proposed to be used as a cooling water source, the pipeline to be installed from the PUD water supply well field to the Facility, and dedicated sewer line from the site to the Burrillville Wastewater Treatment Facility.
- 3-2 The Drawing Package, detail sheets, and application text should also consistently include all of the proposed elements of the project and related work. Please provide an amended Drawing Package or plan sheets that include all aspects of the project. Examples include:
- a. The Drawing Package does not include the substation on sheets depicting the proposed work or limits of disturbance.
 - b. Limits of disturbance are only included in the difficult to read site grading plan (scale: 1"=>400').
 - c. The expansion of the existing ROW should be shown, and the new 345 kV transmission line and ROW should be depicted and distinguished from the existing lines and ROW on all relevant plan sheets and referenced alongside the existing ROW whenever transmission lines are discussed.
 - d. The Wetlands are numbered 1-4 in the text, but these numbers/labels are not included in any of the Drawing Package Sheets.
 - e. The more southerly lay-down area is completely surrounded by wetlands, yet no access to it is shown on the plans. Unless this area will be accessed remotely (i.e. via crane or some other equipment that would eliminated the need for ground access), please show the proposed access and account for it in impact calculations.

- f. Site contours should be labeled at intervals, and plans should be at a sufficient scale to interpret existing and proposed grades. Also, the site topography is omitted in the footprint of the proposed ROW.
- 3-3 Provide a Drawing Package or other plan sheets depicting consistently all on-site wetlands and streams (e.g. Dry Arm Brook, Iron Mine Brook, and their unmapped tributaries) and any associated culverts carrying flow.
 - 3-4 Provide details of the location, type, length, and width of any culverts or bridges to be utilized to allow unimpeded flow of water and free access for wildlife travel under the proposed access road. If a culvert is not proposed under the proposed access road east of Stormwater Retention Pond 1, please explain why.
 - 3-5 Provide details of the location, type, length, and width of all culverts or bridges to be utilized to allow unimpeded flow of water and free access for wildlife travel where the proposed construction access road along the planned overhead transmission line would cross several streams.

SITE INVENTORY:

- 3-6 Provide any survey for rare plants/animals that has been conducted for the site or explain why none has been conducted. There are a fair number of rare plants documented in site vicinity, but the list of species includes only common/dominant species.
- 3-7 Provide the protocol for inventory of fauna on site. Provide a survey which determines the full suite (or at least a more complete list) of species that would be impacted by the project and the nature and extent of those impacts. This includes impacts to rare (e.g. Black-throated Blue Warbler and Wood Turtle) and other area sensitive (e.g. Canada Warbler, Northern Water Thrush, Eastern Box Turtle, etc.) species already known to occur in the project area.
- 3-8 Provide more detail on the specific means of detection for each bird species noted as a probable breeder at the site (i.e. what evidence of breeding was noted for each and where). Section 6.6.2.2 provides this information for black-throated blue warbler, but not other species. Additionally, provide details of the survey protocol and level of effort.
- 3-9 The applicant provided an additional list of wildlife species expected to occur on site “based on the habitats present at the site” and on “habitat preferences of wildlife species given in *New England Wildlife: Habitat, Natural History, and Distribution* (DeGraaf and Rudis, 1986).” Explain the use of the Forest Matrix chart or other resources in this text to derive the species list in Table 6.6-2. Specifically, there are numerous species listed in the Forested Matrix as preferring the on-site habitats and known to occur in Burrillville that are not included here. Were additional criteria used to narrow this list, and if so what were they?
- 3-10 In the applicant’s responses to the Town of Burrillville’s 5th set of data requests, Item 5-8

the applicant states that Section 6.5.2 describes impacts to vegetation and Section 6.6.2.2 details the expected impacts of project construction on wildlife and ecology. Given the limited survey of flora and fauna on-site and the brief treatment of each in the application, these sections are presently inadequate to assess either. Please provide a thorough accounting of biodiversity impacts from the project.

FRAGMENTATION:

For the purposes of comparing costs and benefits to wildlife, all of the existing and proposed work related to increased natural gas operations (processing and transport) in Burrillville should be reviewed as a single and complete project. Piecemeal review of related projects in different stages by different applicants undercounts their cumulative impacts from loss of forests and fragmentation; air, noise, and light pollution, etc. in an area of the state that has been a longstanding conservation priority. In addition to CREC, these projects include all aspects of Spectra Energy's Aim Project; Eversource Energy, National Grid and Spectra Energy's Access Northeast project; and TransCanada's Ocean State Power in Burrillville.

- 3-11 Provide the total acreage of forest clearing to-date in Burrillville and forecasted future (planned) clearing associated with these natural gas projects.
- 3-12 Section 6.6.2.2, Impacts to Wildlife and Ecology, indicates that construction of the proposed facility is anticipated to directly alter approximately 67 acres and indirectly impact another 83 acres (total = 150 acres), while the applicant's Responses to the Town of Burrillville's 5th Set of Data Requests (Response 5a-2) lists the acres of impacted land as 50 acres for the power plant and new gas line, 14 acres for the new line on new ROW, and 57 acres for the new line on existing ROW (total = 121 acres). Assuming the latter calculations are of direct impacts only, and since the majority of the project is presently forested upland and wetland, the substantial discrepancy between the 67 acres in the application and the 121 in the follow up is unclear. Please clarify whether both sets of numbers are correct and, if so, what habitats/land uses will be impacted by the additional 54 acres.
- 3-13 The application states that the "CREC will require a new access road which will be located south of, and parallel to, the existing Algonquin Road". Explain why a new access road is needed.
- 3-14 Considering the anticipated impacts on a large area of intact forest, and associated impacts on forest-interior habitat species and other forest-fragmentation impacts, provide information on what other sites were considered that were suitable for the project purpose but would have involved less impact to unfragmented interior forest habitat.

WATER:

- 3-15 Section 3.5.5 Appurtenant Equipment notes that, as an alternative to sending wastewater to the Burrillville Sewer Authority wastewater treatment system, "a zero liquid discharge system may be used." What are the environmental costs and benefits of this alternative

(e.g. would it increase water recycling /reduce drawdown of area streams and wetlands/)? Why is the zero liquid discharge system only being contemplated if permission to discharge to the Burrillville Wastewater Treatment plant isn't granted?

- 3-16 Section 6.2.1.2 Potential Impacts to Ground Water mentions dewatering, but it does not detail the projected extent and schedule of dewatering or the anticipated dewatering impacts to adjacent wetland habitats/wildlife during the proposed four-year construction phase. Please clarify.
- 3-17 The application states in Surface Water section 6.2.2.1 Existing Conditions that aquatic macroinvertebrates were not assessed in any stream other than Iron Mine Brook due to non-flowing conditions on July 23, 2015. It should be noted that additional survey of macroinvertebrates in unsampled streams might reveal more about the biodiversity and current condition of on-site streams and provide a baseline upon which to estimate potential impacts and measure actual impacts from loss of shade, any changes in water quality and quantity, etc.
- Why weren't these other streams sampled in the interim?
 - Are there plans to sample these other streams? If not, why?
 - Please confirm that the information in Table 6.2-1 is accurate, as there appear to be an unusual number of duplicate entries in the stream sample quantities listed.
- 3-18 In section 6.2.4 Water Supply – Impacts of Withdrawals on Clear River, the applicant asserts that the Project referred to the RIDEM's 2010 Rhode Island Streamflow Depletion Methodology (SDM) to conclude that the Clear River had a remaining withdrawal allowance of 0.4 MGD during summer conditions from which CREC could withdraw 0.22 MGD. Was the extensive network of on-site streams and wetlands considered in this analysis? All on-site streams are stated to cease flow under present conditions, which could imply a very specific macroinvertebrate and/or amphibian community dependent upon the existing water regimes in these streams (or perhaps already stressed by increases in extremes).
- 3-19 In addition to the drawdown at well #3A (assumed to represent a one for one reduction in the Clear River flow), have calculations been performed to estimate water quantity impacts to on-site wetlands/streams from loss of infiltration associated with the "Land Use with Higher Potential Pollutant Load (LUHPPL)" designation for the majority of the project area?
- 3-20 Section 6.4 Stormwater indicates that the 67-acre parcel is not adjacent to a named waterbody. The parcel is adjacent to two named waterways that drain directly to the Clear River and then to Wilson Reservoir. Given the direct surface water connection, the intent and/or utility of this assertion are unclear. Please clarify.

LIGHT:

- 3-21 Were light impacts to wildlife considered? Was light pollution considered in the calculation of a buffer distance into the forest from indirect impacts? Is lighting minimized to the greatest extent practicable?
- 3-22 Provide details of required site lighting, and describe what steps will be utilized to minimize lighting impacts or avoid light spillover into adjacent forested habitats from both the plant and the access road. Details should include, but not be limited to, lighting schedules, lumen output (based on need assessment); Correlated Color Temperature (CCT); fixture shields; and adaptive controls such as dimmers, timers, and/or motion sensors. Include all outdoor lighting, including any necessary on the stacks.

NOISE:

Most of the analysis involves dBA, which is a unit of measure specific to the human ear, and all of the standards discussed in the application appear to be anthropocentric. Likewise, time of day distinctions would, if anything, disadvantage wildlife, as the majority of species are either nocturnal or crepuscular.

- 3-23 Has the applicant considered noise impacts (i.e.. those brought in by the existing facility and those proposed to be added during both the lengthy construction period and post-construction operation) to area wildlife, including an assessment of the kind of impacts the expected average and episodic broadband and octave decibel levels will have on area-sensitive species?
- 3-24 Was noise considered in the calculation of a buffer distance into the forest from indirect impacts?
- 3-25 What is the distance into the forest that the impacts from both plants do not contribute to an increased noise level? If the answer to this is greater than 300 feet, it may be more accurate to adjust the buffer used for disturbance to interior forest species/indirect impacts to forest habitat.
- 3-26 Given the impacts of temperature, weather, and other variables on measurements, does the ambient noise level survey conducted to characterize the existing acoustical environment at the nearest NSAs account for seasonality (i.e. would there be other months of the year that could be expected to be yield substantially different ranges than those obtained from April 21-24, 2015)?
- 3-27 Are venting/blowdowns and any other intermittent high-noise events factored into the noise projections, and if so how (LCEQ)? If not, how much louder than the average noise levels are these events on the existing site and in adjacent forest, and how much louder than average can they expected to be on the new site and in adjacent forest?

- 3-28 While the existing compressor facility is generally noisier than the proposed facility, any additional sound within 10 decibels of the existing source(s) will raise the total noise level from 1-3 decibels. Is this decibel addition “rule of thumb” specific to the human ear? Has the applicant considered studying the noise impacts of the existing facility on area wildlife? If yes, provide those studies.
- 3-29 The application indicates that Noise levels during Project construction are expected to be near or below current daytime ambient noise levels (LAEQ). Is this as measured at nearby Noise Sensitive Areas (NSAs)? What about on site and in immediately adjacent forested areas?

AIR:

- 3-30 Under Section 7.2.4 Analysis of Need – Impact on Rhode Island Emissions Goals, the applicant projects a favorable short-term impact for the region, but does not address the state in particular. Changes in emissions/air quality are relevant to all biodiversity and to sensitive species in particular. Did the applicant calculate the change to RI’s emissions specifically, as this is what would be most relevant to local plants and animals? What is the timeline for which emissions reductions were calculated (i.e. at what point would emissions from MWs provided via natural gas exceed the average emissions from the energy pool)?
- 3-31 Are there industry studies of local air quality and wildlife impacts from similar facilities? If yes, please provide references to those studies. Additionally, has the applicant considered studying impacts at the existing compressor station (under normal and venting conditions)? If yes, please provide those studies.
- 3-32 Do the air, cost-benefit, and/or alternatives assessments factor in the negative environmental and climate change impacts from the proposed loss of forest (e.g. loss of environmental services, such as soil carbon storage, CO2 storage in biomass, temperature mitigation, and water storage capacity/mitigation)? If not, provide an analysis factoring in such negative impacts.

VEGETATION:

- 3-33 The application correctly asserts that the creation of new edge habitat will inhibit the growth of shade tolerant species and encourage disturbance specialists, likely including invasive species. Are any non-native species, and invasive species in particular, currently on site? If yes, provide a list of those species. Are there nearby sources for invasive species? If yes, provide a list of species and their location.

ROADS:

- 3-34 Have wildlife impacts from increased vehicle traffic been considered, including road kill associated with higher traffic volumes on 23 roads, many of which are rural? If yes, please explain.

- 3-35 The application states that “Figure 6.8-1 shows the Heavy Haul and Main Road, Wallum Lake Road, the New Entrance Road, proposed parking and the equipment laydown area,” but the Heavy Haul and Main Road are not labeled. Are they synonymous with Wallum Lake Road and new entrance?

ELECTRIC AND MAGNETIC FIELDS (EMF):

- 3-36 Regarding Table 6.11-4: Magnetic-field Levels (mG) at Peak Loading of CREC Line and Average and Peak Loading of the Existing 341 and 347 Lines:
- a. Why are the new ROW segment and the proposed new 345kV line (new and existing ROW segments) not included here? Please include.
 - b. Why are some of the listed existing and proposed peaks lower than existing and proposed averages (especially the average max on ROW > peak max on ROW)? Please confirm the accuracy of these numbers.
- 3-37 Has the applicant consulted the existing literature or otherwise considered the impacts of electric and magnetic fields (EMF) comparable to those currently proposed on area wildlife? To the extent that existing literature was consulted, please provide a list of all references reviewed or an explanation as to why existing literature was not consulted. As with noise, the access limitations, time of day distinctions, and buffering of impact from distance and buildings do not generally apply to wildlife.

PURPOSE/NEED AND ALTERNATIVES:

If impacts to wildlife are permitted, there should be a compelling purpose/need and, if a need is demonstrated, a thorough alternatives analysis to determine if alternative projects and/or alternative sites or locations within a site might achieve the same end. The applicant makes several confusing and conflicting assertions about the purpose and need for the project and the assessment of suitable alternatives. Please address the numerous shortcomings in these sections, which include the following:

- 3-38 The alternatives analysis presents numerous instances of circular logic. A pointed example includes dismissing hydropower in the Power Generation Alternatives section (and omitting it from all other sections) solely because it would not be appropriate on the proposed CREC site, which was selected for proximity to the gas line, and then dismissing alternative project locations because they do not have the desired natural gas infrastructure.
- 3-39 The emissions and cost-benefit (input-output, or I-O) analyses both primarily only list benefits. A proper analysis should include costs, yet there is no mention of loss of forests, biodiversity, ecosystem services (moderation of extreme heat/cold weather, climate change mitigation, water quality, health), etc. in this section. This seems particularly important since the application notes that the majority of the benefits outlined (e.g. construction jobs and energy costs savings) would be rather short-lived and the majority of the foreseeable costs would be long term or permanent. Provide an updated cost-benefit analysis that includes costs, such as those mentioned herein.

- 3-40 The proposed project should be compared to its alternatives in all aspects, and not just those with which it compares favorably. It is not sufficient, for example, to compare natural gas emissions and environmental impacts favorably to continued operation of older coal and oil-fired generators, but never to alternative energies. Similarly, the application notes the deleterious impacts to birds and bats from collision with wind turbines, but does not assess related collision concerns at other tall manmade structures (e.g. stacks) or the well-documented fatality risks from electrocutions along power lines. Provide an updated comparison of the proposed project to its alternatives in all respects.
- 3-41 Costs and benefits should be calculated within the same geographic confines. Project benefits are calculated regionally, whereas environmental and other costs, where they are calculated at all, are limited to state lines (e.g. emissions reductions calculations include all of New England and New York, but costs do not include the crossing of wetlands, waterbodies or wildlife refuges in these states or other impacts across the region). Provide an updated cost-benefit analysis with costs and benefits calculated within the same geographic confines (Rhode Island only).
- 3-42 Section 3.2 states the project’s purpose and function as helping ISO-NE “meet its capacity, reliability, and operational requirements and needs for the regional electric transmission network”, yet the proposed location was deemed the only option that meets the purpose of the project because the chosen starting point for the search was a location that meets the needs of a natural gas facility in RI rather than one that assists with the energy needs of the ISO-NE region. The premise that natural gas is the only way to meet demand is not borne out by the information provided. Specifically,
- a. It is false logic to imply that the results of the ISO-FCAs, which are supply-and-demand auctions designed to secure sufficient quantities of energy at the lowest cost (i.e. economic efficiency), demonstrate a need for CREC specifically and/or prove that it would have superior energy efficiency and/or environmental value/benefits over other sources. Provide an accounting of any environmental benefits that does not rely on current regional economics to justify the project.
 - b. A thorough needs assessment should consider the current and projected energy portfolio as a whole rather than use retirements of outdated facilities to justify additional natural gas. Coal and oil generators were stated to be 28% of capacity, but only 6% of 2014 production in the region. Provide a demonstration of need that includes production numbers and estimated timelines for retirements to justify a large investment in a “bridge fuel” with its attendant environmental consequences.
 - c. The application cites the assertion that “ISO-NE needs to balance the variable output from wind and solar resources in order for the power system to operate reliably” to eliminate full consideration of alternative energy sources to fulfill the currently stated need for more MW, yet less than 3% of the MWs entered into the start of the ISO-NE FCA-10 auction were intermittent, while nearly half were natural gas, and the overwhelming majority of RI’s electricity is presently supplied by natural gas. Why was this cited as the primary reason for dismissing alternative

energy sources for the project when they are currently such a small fraction of the power supply?

- 3-43 Provide a more balanced cost-benefit assessment of all viable energy sources and alternative sites in the SENE/RI area, including those that might avoid impact to a high priority conservation area. Citing considerations should include mapping of natural resources, including but not limited to surface and ground water and other environmentally sensitive areas, wildlife and habitat resources, conservation land, and other open space. The RIDEM Map Room is a good place to start.
- 3-44 The application presents the 1000 MW proposed for CREC as the standard for the project and dismisses alternatives that do not achieve the full quantity from a single source on a single site. Where did the 1000 MW quantity come from and why must the entire quantity be met with one energy source at a single site? There are several important, low-impact energy sources that were eliminated from consideration by this logic, including items a, b, and c below.
- a. Provide a more thorough consideration of demand resources. The application indicates that there is limited room for additional efficiency, yet well over 10% of demand resources entered into the most recent FCA-10 auction were new sources amounting to well over 400 MW. Demand resources throughout the region should be given further and serious consideration until they have been completely expended, particularly given that they are the only option that can help meet demand without impact.
 - b. Provide a more thorough consideration of solar. The application correctly notes the costs, including that it requires large land areas in order to generate the approximate 1,000 MW of electricity proposed to be supplied by the project. However, it ignores the benefit of solar in a state that can ill-afford to lose more forestland, which is that solar can take advantage of already developed/impacted areas (such as rooftops, carports, and garages on a small scale and ROWs on a larger scale) to avoid virgin land and does not need to be all in one place to add up to substantial generation/reduce demands on the grid.
 - c. ISO-NE reports indicate that there is excess supply elsewhere within the region and that transmission is a barrier. Given the high environmental cost of energy production, provide an assessment of alternatives that also address transmission improvements.
- 3-45 Provide more detail about alternative alignments within the same site and associated resources/site constraints. Wetlands were apparently only field delineated south of Algonquin Lane., and the culverts through which two Iron Mine Brook tributaries pass under Algonquin Lane and the woods road are not depicted in the Drawing Package. While some of these un-delineated features may be well outside of the work as proposed, the lack of field-verified information on adjacent areas under the same ownership makes assessment of the feasibility of alternative alignments difficult for reviewers and calls into question how the applicant arrived at their decision.

- a. Address the alternative placement of the facility on the north side of the existing ROW and using the existing Algonquin Way in lieu of constructing a new access road from Wallum Lake Rd. Avoiding impacts to wetland/stream is important, but all impacts/interests should be considered, including minimizing additional forest fragmentation and negative impacts to adjacent DEM conservation land. The application also cites the existing ROW as a reason for the proposed alignment. What are the issues involved with crossing the existing ROW?
- 3-46 Section 10.1.2, Renewable Technology Alternatives: Wind Generation appears to include either a wind assessment for Pennsylvania or for the entire northeast. Please clarify.
- 3-47 In Section 3, two of the (three) reasons cited for Invenergy and AGT locating the project as proposed within the subject 730 acres were that it would not require a new access road that would cross over the pipeline and that it provided a “suitable buffer to nearby residential properties and to the AGT compressor station”.
- a. Where are the alternate locations that were considered? They should be depicted and their costs/benefits documented.
 - b. What is the issue with crossing over the pipeline with an access road and was it weighed against the intrusion of a new access road?
 - c. Why would the project need to be buffered from the AGT compressor station?
 - d. Why wasn’t high priority wildlife habitat on the list of areas that merited buffering from the project?

POTENTIAL IMPACTS/IMPACT MITIGATION:

- 3-48 None of the potential impact sections address the potential for accidents (e.g. spills, leaks, fires, explosions) and attendant impacts to wildlife and their habitats or other natural resources.
- a. What if any environmental containment and cleanup policies are in place in case of accidental contamination (e.g. spills, leaks, fires, and explosions) to protect local habitats? Are there dedicated funds or a financing mechanism in place to execute an expeditious cleanup/abatement? What are the data on the likelihood of such events over the expected life of the project based on accidents/incidents at existing plants? What would be the expected radius of associated environmental impacts?
 - b. The applicant notes in its Response to the Town of Burrillville 9th Set of Data Requests that the “generator is equipped with end shields that are designed to withstand a hydrogen explosion in the unlikely event of such a mishap and direct the blast away from possible occupied spaces around the perimeter of the generator.” Please explain what is meant by “unlikely” (i.e. what is the statistical likelihood of a hydrogen fire/explosion over a specific period of time)? What are these same statistical likelihoods for hydrogen during transport to the facility? What is the expected radius of the perimeter blast area?

Section 6.3.4 Proposed Mitigation: Impact avoidance states that “the proposed Project has been designed to avoid impacts to wetlands wherever possible” and subsequent responses to data requests assert that impacts will be fully mitigated via the wetland permitting process. While mitigating impacts to wetlands is critical, it is insufficient for a project with such extensive impacts to valuable upland resources and the wetland permitting process is not designed to address such impacts.

- 3-49 Under the current plans a significant portion of the property where the Project is located will not be touched. What is the applicant’s plans for the untouched 464 acres of property adjacent to state land?
- 3-50 Could all tree cutting and vegetation removal at the proposed plant location and the proposed new gas line ROW be restricted to a fall/winter time frame to avoid the breeding season for most wildlife (and not just that of any threatened species identified in the areas to be cleared, as presently indicated by the applicant)?
- 3-51 How will the applicant restore wetlands and adjacent uplands to conditions “comparable to those that existed before construction” in mature forest/forested wetland? What size plantings would be used to re-establish temporary impact areas post-construction, what would the anticipated timeline be for substantial vegetation growth/re-establishment to occur in these areas?
- 3-52 How would the applicant guarantee re-establishment, particularly in areas outside of ACOE jurisdiction (and thus unlikely to be covered by Clean Water Act permit conditions)?
- 3-53 Will all planting and seeding be with local (native to RI, no cultivars, preferably native stock) species?
- 3-54 How will the applicant avoid (or more likely mitigate) soil compaction in construction lay-down/staging areas and other areas designated for temporary impacts?
- 3-55 Is there an invasive species protocol (equipment cleaning, specs for fill material, etc.) to avoid tracking new species in from offsite? Would the applicant be willing to establish an ongoing management plan and funds to address any species that do become introduced in a timely manner?
- 3-56 Has the installation of noise reduction measures at the existing facility been considered to reduce the overall noise impact from the site?
- 3-57 Will on-site lighting (existing and proposed) be evaluated to make sure that lighting is minimized to the greatest extent possible and that necessary lighting will be as wildlife-friendly as possible (The International Dark Sky Association is one organization that provides guidance on this)?

- 3-58 Section 6.12 Visual Impacts and Aesthetics states that, since the stack is 200 feet tall, the Federal Aviation Administration (FAA) must be consulted to determine lighting needs. Will any such lighting decisions consider wildlife? Color and flash pattern of tower lighting is known to have a substantial impact on birds.
- 3-59 Collision with glass is a leading cause of bird fatalities, and the proposed facility location within probable breeding habitat for numerous locally rare forest birds makes this of greater concern. Please provide details on any windows or glass exterior surfaces and proposed mitigating measures.
- 3-60 The existing wood road currently bisects Wetland 1 four times and the proposed access road bisects it three times. Why is only one culvert proposed in the Drawing Package (at the existing culvert/crossing closest to road). For the other large crossing at least (east of proposed Storm Water Detention Pond 1), the project should consider an additional culvert to reconnect this wetland system rather than make permanent the fracturing that was initiated by the wood road. The addition of traffic on this road makes a culvert that much more important, as a properly designed and sized culvert might avert some of the attrition of animals common to roads that bisect forested wetlands.

Respectfully submitted,
RHODE ISLAND DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
By its attorney,



Christina A. Hoefsmit, Esq. (No. 8979)
Office of Legal Services
235 Promenade St., Fourth Floor
Providence, RI 02908
401.222.6607/Fax: 401.222.3378
christina.hoefsmit@dem.ri.gov

Dated: July 13, 2016

CERTIFICATE OF SERVICE

I hereby certify that on July 13, 2016, I sent a true copy of the following to the Energy Facilities Siting Board via first class mail, postage pre-paid and electronic mail, and to the parties on the attached service list via electronic mail.



Christina A. Hoefsmit

SB-2015-06 Invenergy CREC Service List as of 06/29/2016

Name/Address	E-mail	Phone/FAX
<p>File an original and 10 copies with EFSB: Todd Bianco, Coordinator Energy Facility Siting Board 89 Jefferson Boulevard Warwick, RI 02888</p> <p>Margaret Curran, Chairperson Janet Coit, Board Member Assoc. Dir., Div. of Planning Parag Agrawal Patti Lucarelli Esq., Board Counsel Susan Forcier Esq., Counsel Rayna Maguire, Asst. to the Director DEM</p>	Todd.Bianco@puc.ri.gov ;	401-780-2106
	Patricia.lucarelli@puc.ri.gov ;	
	Margaret.Curran@puc.ri.gov ;	
	janet.coit@dem.ri.gov ;	
	susan.forcier@dem.ri.gov ;	
	rayna.maguire@dem.ri.gov ;	
Parag.Agrawal@doa.ri.gov ;		
<p>Parties (Electronic Service Only, Unless by Request)</p>		
<p>Invenergy Thermal Development LLC Alan Shoer, Esq. Richard Beretta, Esq. Elizabeth Noonan, Esq. Nicole Verdi, Esq. Adler, Pollock & Sheehan One Citizens Plaza, 8th Floor Providence, RI 02903</p>	ashoer@apslaw.com ;	401-274-7200
	rberetta@apslaw.com ;	
	enoonan@apslaw.com ;	
	nverdi@apslaw.com ;	
	jniland@invenergyllc.com ;	
<p>John Niland, Dir. Of Business Development Tyrone Thomas, Esq., Asst. General Counsel Invenergy Thermal Development LLC One South Wacker Drive, Suite 1900 Chicago, IL 60600</p>	Tthomas@invenergyllc.com ;	
	<p>Town of Burrillville Michael McElroy, Esq., Special Counsel Leah Donaldson, Esq., Special Counsel Schacht & McElroy PO Box 6721 Providence, RI 02940-6721</p>	Michael@mcelroylawoffice.com ;
leah@mcelroylawoffice.com ;		
Nikolyszyn@gmail.com ;		401-474-4370
<p>Oleg Nikolyszyn, Esq., Town Solicitor 155 South Main St., Suite 303 Providence, RI 02903</p>	Jelmer@clf.org ;	401-351-1102
	Mgreene@clf.org ;	
<p>Conservation Law Foundation Jerry Elmer, Esq. Max Greene, Esq. 55 Dorrance Street Providence RI, 02903</p>	Bess.Gorman@nationalgrid.com ;	781-907-1834

Office of Energy Resources Andrew Marcaccio, Esq. Nick Ucci, Chief of Staff Chris Kearns, Chief Program Development One Capitol Hill Providence, RI 02908 Ellen Cool Levitan & Associates	Andrew.Marcaccio@doa.ri.gov ;	401-222-3417
	Nicholas.Ucci@energy.ri.gov ;	401-574-9100
	Christopher.Kearns@energy.ri.gov ;	
	egc@levitan.com ;	
Rhode Island Building and Construction Trades Council Gregory Mancini, Esq. Sinapi Law Associates, Ltd. 2374 Post Road, Suite 201 Warwick, RI 02886	gmancinilaw@gmail.com ;	401-739-9690
Residents of Wallum Lake Road, Pascoag, RI Dennis Sherman and Kathryn Sherman Christian Capizzo, Esq. Shechtman Halperin Savage, LLP 1080 Main Street Pawtucket, RI 02869	ccapizzo@shslawfirm.com ;	401-272-1400
	kags8943@gmail.com ;	
Residents of Wallum Lake Road, Pascoag, RI Paul Bolduc and Mary Bolduc Joseph Keough Jr., Esq. 41 Mendon Avenue Pawtucket, RI 02861 Paul and Mary Bolduc 915 Wallum Lake Road Pascoag, RI 02859	jkeoughjr@keoughsweeney.com ;	401-724-3600
	oatyssl@verizon.net ;	401-529-0367
Abutter David B. Harris Michael Sendley, Esq. 600 Putnam Pike, St. 13 Greenville, RI 02828	msendley@cox.net ;	401-349-4405
Interested Persons (Electronic Service Only)		
Residents of 945 Wallum Lake Road, Pascoag, RI (Walkers) Nicholas Gorham, Esq. P.O. Box 46 North Scituate, RI 02857	nickgorham@gorhamlaw.com ;	401-647-1400
	edaigle4@gmail.com ;	
Peter Nightingale, member Fossil Free Rhode Island 52 Nichols Road Kingston, RI 02881	divest@fossilfreeri.org ;	401-789-7649
Sister Mary Pendergast, RSM 99 Fillmore Street Pawtucket, RI 02860	mpendergast@mercayne.org ;	401-724-2237

Patricia J. Fontes, member Occupy Providence 57 Lawton Foster Road South Hopkinton, RI 02833	Patfontes167@gmail.com ;	401-516-7678
Burrillville Land Trust Marc Gertsacov, Esq. Law Offices of Ronald C. Markoff 144 Medway Street Providence, RI 02906	marc@ronmarkoff.com ;	401-272-9330
Paul Roselli, President Burrillville Land Trust PO Box 506 Harrisville, RI 02830	proseli@cox.net ;	401-447-1560
Rhode Island Progressive Democrats of America Andrew Aleman, Esq. 168 Elmgrove Avenue Providence, RI 02906	andrew@andrewaleman.com ;	401-429-6779
Fighting Against Natural Gas and Burrillville Against Spectra Expansion Jillian Dubois, Esq. The Law Office of Jillian Dubois 91 Friendship Street, 4 th Floor Providence, RI 02903	jillian.dubois.esq@gmail.com ;	401-274-4591
Burrillville Town Council c/o Louise Phaneuf, Town Clerk 105 Harrisville Main Street Harrisville, RI 02830	lphaneuf@burrillville.org ;	401-568-4300
Thomas J. Kravitz, Town Planner Town of Burrillville 144 Harrisville Main Street Harrisville, RI 02830	tkravitz@burrillville.org ;	401-568-4300
Joseph Raymond, Building Official	jraymond@burrillville.org ;	
Michael C. Wood, Town Manager Town of Burrillville 105 Harrisville Main Street Harrisville, RI 02830	mcwood@burrillville.org ;	401-568-4300 ext. 115
Mr. Leo Wold, Esq. Department of Attorney General 150 South Main Street Providence, RI 02903	LWold@riag.ri.gov ;	401-274-4400
Public Utilities Commission Cynthia Wilson Frias, Esq., Dep. Chief of Legal Alan Nault, Rate Analyst	Cynthia.Wilsonfrias@puc.ri.gov ;	401-941-4500
	Alan.nault@puc.ri.gov ;	
Division of Public Utilities and Carriers	john.spirito@dpuc.ri.gov ;	401-941-4500

John J. Spirito, Esq., Chief of Legal Steve Scialabba, Chief Accountant Tom Kogut, Chief of Information	steve.scialabba@dpuc.ri.gov ; thomas.kogut@dpuc.ri.gov ;	
Matthew Jerzyk, Deputy Legal Counsel Office of the Speaker of the House State House, Room 302 Providence RI, 02903	mjerzyk@rilin.state.ri.us ;	401-222-2466
Hon. Cale Keable, Esq., Representative of Burrillville and Glocester	Cale.keable@gmail.com ;	401-222-2258
Nick Katkevich	nkatkevich@gmail.com ;	
Ambar Espinoza	aespinoza@ripr.org ;	
Joseph Bucci, Acting Administrator Highway and Bridge Maintenance Operations RI Department of Transportation	joseph.bucci@dot.ri.gov ;	
Jared Rhodes, Chief Statewide Planning Program	jared.rhodes@doa.ri.gov ;	
Jennifer Sternick Chief of Legal Services RI Department of Administration	Jennifer.sternick@doa.ri.gov ;	
Doug Gablinske, Executive Director TEC-RI	doug@tecri.org ;	
Tim Faulkner ecoRI News 111 Hope Street Providence, RI 02906	tim@ecori.org ;	401-330-6276
Robert Tormey Conanicut Energy, LLC	rjtormey@conanicutenergy.com ;	617-306-1601
Sally Mendzela	salgalpal@hotmail.com ;	
Keep Burrillville Beautiful Paul LeFebvre	paul@acumenriskgroup.com ;	401-714-4493
Mark Baumer	everydayyeah@gmail.com ;	
Nisha Swinton Food & Water Watch New England	nswinton@fwwatch.org ;	
Kaitlin Kelliher	Kaitlin.kelliher@yahoo.com ;	
Joe Piconi, Jr.	jiggzy@hotmail.com ;	
Hon. Aaron Regunberg Representative of Providence, District 4	Aaron.regunberg@gmail.com ;	
Paul Ernest	paulwernest@gmail.com ;	
Skip Carlson	scarlson@metrocast.net ;	
Kathryn Scaramella	kscaramella@outlook.com ;	

Diana Razzano	Dlrazzano13@verizon.net ;	
David Goldstein	tmdgroup@yahoo.com ;	
Douglas Jobling	djobling@cox.net ;	
Claudia Gorman	corkyh@gmail.com ;	
Curt Nordgaard	Curt.nordgaard@gmail.com ;	
Collee Joubert	Colleenj1@cox.net ;	
Matt Smith Food & Water Watch	msmith@fwwatch.org ;	
Christina Hoefsmit, Esq. Senior Legal Counsel RI Department of Environmental Management	Christina.hoefsmit@dem.ri.gov ;	