



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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August 15, 2017

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 Rhode Island Department of Environmental Management's Supplemental Advisory Opinion to the Energy Facilities Siting Board.

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, reading "Christina A. Hoefsmit".

Christina A. Hoefsmit, Esq.

enc: DEM Supplemental Advisory Opinion

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 :

**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT'S SUPPLEMENTAL
ADVISORY OPINION TO THE ENERGY FACILITY SITING BOARD
PURSUANT TO THE NOTICE OF DESIGNATION ISSUED APRIL 13, 2017**

On October 29, 2015, Invenergy Thermal Development, LLC ("Invenergy" or "Applicant") filed with the State of Rhode Island Energy Facility Siting Board ("EFSB") an application to construct and operate the Clear River Energy Center ("Facility" or "CREC"), a combined-cycle electric generating facility to be located on Wallum Lake Road in Burrillville, Rhode Island.¹ In its application Invenergy proposes to construct a two-unit one-on-one, combined-cycle generation station with a nominal power output at base load of approximately 850-1,000 megawatts (MW) while firing natural gas.² The electric power generated from the proposed Facility would be transmitted through a new 345kV transmission line to be installed from the Facility along an existing National Grid right-of-way to the Sherman Road Substation in Burrillville.³ On March 10, 2016, the EFSB issued an Order which, among other things, requested an Advisory Opinion from the Rhode Island Department of Environmental Management ("DEM") on five questions:

- (i) Whether the proposed fuel oil storage facilities would conform to its Oil Pollution Control Regulations, and if not, whether a waiver is justified;
- (ii) The impact of the Facility's withdrawal of groundwater on the remediation of the Pascoag well;

¹ Invenergy filed supplemental materials to its application on November 9, 2015.

² EFSB Order No. 86. (issued March 10, 2016) and as modified by EFSB Order No. 88 (issued March 11, 2016).

³ *Id.*

- (iii) The impact on fish and wildlife that will be caused by disruption of the habitat;
- (iv) How the Facility will affect compliance with the Regional Greenhouse Gas Initiative annual emission cap and the Federal Clean Power Plan; and
- (v) Whether the Facility will present an unacceptable harm to the environment.⁴

Thereafter, on July 1, 2016, the EFSB issued an Order requesting DEM to address three additional questions in their Advisory Opinion:⁵

- (vi) The impact of the proposed facility on state conservation priorities and plans, fish and wildlife habitats, and rare species, including those identified in the Rhode Island Natural Heritage database;
- (vii) The impact the proposed Facility would have on public recreation on state conservation lands and the Department's nearby Parks and Management Areas; and
- (viii) The cumulative environmental impacts of the proposed Facility given the relative proximity of the proposed Facility to the existing Ocean State Power Plant and the Algonquin Compressor Station.

DEM provided the requested Advisory Opinion to the EFSB on September 12, 2016 (the "Advisory Opinion"). Thereafter, on April 13, 2017, the EFSB issued an Order and Notice of Designation to DEM to supplement its original Advisory Opinion.⁶ Specifically, the EFSB directed DEM to:

- Supplement its advisory opinion to address any issues that it was unable to consider due to lack of information in its original advisory opinion, as well as the impacts of Invenenergy's water supply plan, and any other elements of the project – including new permit applications – that have been added, updated, or modified since its original advisory opinion was issued; and
- Identify and characterize the scope of the harm to the environment that this project would cause, and if it determines such harm to be unacceptable to provide a detailed explanation supporting that conclusion.⁷

Pursuant to the April 13, 2017, Order and Notice of Designation the DEM offers this

⁴ *Id.* at 14-15.

⁵ EFSB Order No. 95. (issued July 1, 2016).

⁶ EFSB Order No. 110. (issued April 13, 2017).

⁷ *Id.* at 3.

supplemental advisory opinion. Except as supplemented herein the DEM reaffirms those opinions issued in the DEM Advisory Opinion. In the event that changes to the project are made or new information becomes available subsequent to the issuance of this supplemental advisory opinion, DEM explicitly reserves the right to modify the opinions issued herein and in the Advisory Opinion.

I. Advisory Opinions⁸

- i. Whether the proposed fuel oil storage facilities would conform to its Oil Pollution Control Regulations, and if not, whether a waiver is justified.*
- iv. How the Facility will affect compliance with the Regional Greenhouse Gas Initiative annual emission cap and the Federal Clean Power Plan.*

With respect to items above, DEM has reviewed those materials submitted in this docket and available to DEM since September 12, 2016, and DEM's conclusions have not changed from those set forth in the Advisory Opinion. For item *iv* and *viii* below, Laurie Grandchamp, Chief of Air Resources, replaces Doug McVay as the Respondent.

- vii. The impact the proposed Facility would have on public recreation on state conservation lands and the Department's nearby Parks and Management Areas.*

Regarding impacts to public recreation on State Management Areas, a section of the Burrillville Interconnection Project ("BIP") crosses the southern tip of the DEM's Round Top Management Area. Within the Management Area, Big and Little Round Top Ponds provide fishing and boating opportunities. These ponds flow into Little Round Top Brook along the southeastern property line. Both ponds as well as Little Round Top Brook are stocked by DEM. The Clear River, which provides fishing and canoeing opportunities and has several access points along the river, is also stocked by DEM.

The inclusions of this information is in the interest of completeness and does not change

⁸ Except as otherwise noted, the Respondents to this Supplemental Advisory Opinion are the same as in DEM's Advisory Opinion.

the conclusions set forth in DEM's Advisory Opinion. Regarding the above information, Christine Dudley, Deputy Chief, Freshwater & Diadromous Fisheries is the Respondent.

- ii. *The impact of the Facility's withdrawal of groundwater on the remediation of the Pascoag well.*

At the time DEM issued the Advisory Opinion Invenergy had not identified the source of the Facility's water supply. The Facility's water source has since been identified and Invenergy proposes purchasing water from the Town of Johnston and transporting it to the Facility. As this proposal does not involve the reactivation of PUD well #3A DEM's opinion has not changed from that set forth in the Advisory Opinion.

- iii. *the impact on fish and wildlife that will be caused by disruption of the habitat.*
- v. *Whether the Facility will present an unacceptable harm to the environment.⁹*
- vi. *The impact of the proposed facility on state conservation priorities and plans, fish and wildlife habitats, and rare species, including those identified in the Rhode Island Natural Heritage database.*
- viii. *The cumulative environmental impacts of the proposed Facility given the relative proximity of the proposed Facility to the existing Ocean State Power Plant and the Algonquin Compressor Station.¹⁰*

Fundamentally, with respect to items *iii*, *v*, *vi*, and *viii*, DEM's opinion has not changed since it issued its Advisory Opinion. DEM reaffirms its assertion in the Advisory Opinion that

. . . substantial forest clearing and fragmentation from the project will negatively impact area-sensitive wildlife (and plants) in the site vicinity and that, at a broader spatial scale, this Project will inhibit DEM's attempts to enhance landscape resiliency to mitigate the loss of biodiversity through habitat fragmentation and climate change.¹¹

While the EFSB requested supplemental opinions based on the availability of additional information, little of what has been made available subsequent to DEM's Advisory Opinion allows

⁹ EFSB Order No. 86 (issued March 10, 2016) at 14-15.

¹⁰ EFSB Order No. 95. (Issued July 1, 2016).

¹¹ DEM Advisory Opinion (September 12, 2016), at 12.

for a more detailed discussion on the nature of fish and wildlife impacts or influences DEM's original conclusions regarding the site of the proposed Facility.

Invenergy conducted floral and faunal surveys on the CREC property for which they provided a technical report to DEM on August 2, 2017.¹² This survey added substantially to the list of previously undocumented wildlife on the CREC property. According to the report:

Thirteen distinct field survey programs were completed as part of this inventory which resulted in the detection of 520 animal and plant species in the study area, including 113 vertebrates (81 birds, 21 mammals, eight amphibians, and three reptiles), 220 invertebrates (147 butterflies and moths, 25 dragonflies and damselflies, and 48 other invertebrates), and 187 plants. Seventeen (17) state-listed species – including one state endangered species, four state-threatened species, ten species of concern, and two protected species –as well as 47 Species of Greatest Conservation Need (SGCN) (RIDEM/TNC 2015) were detected in the study area during the course of this inventory.¹³

Two State-threatened birds, the Black-Throated Blue Warbler and Blackburnian Warbler, were reported to be probable breeders on-site. Both birds are forest interior species. According to the report:

An avian observation classified as a “possible” consists of observing a species once in appropriate breeding habitat and after the “safe date” for that species in Rhode Island. The safe date is defined by the Rhode Island Bird Atlas 2.0 as the date on which most migrants of a given species have departed the state, and hence most individuals remaining in the state are potential breeding birds. Additional observations of breeding activity (including observation of a pair in suitable habitat after the species safe date, singing or other territorial behavior on at least two days separated by at least one week, courtship or copulation, etc.) indicate a “probable” breeding observation. Directly observing active nests or nest-attending behavior, recently fledged young, distraction displays, or other similar observations would indicate a “confirmed” breeding bird.¹⁴

While the above results of the survey efforts are certainly helpful and further support the

¹² Clear River Energy LLC's Response to the Rhode Island Department of Environmental Management's Fourth Set of Data Requests, Response 4-5, (June 19, 2017).

¹³ Biological Inventory Report: Clear River Energy Center Burrillville, Rhode Island, ESS Group, p. 69 (August 2, 2017).

¹⁴ *Id.* at 10.

conclusion that the forest interior habitat provided on site is quite valuable, it should be noted that a single season of survey is unlikely to reveal the full suite of biodiversity on site. As stated in the Department's original Advisory Opinion, "[A] complete biological inventory would need to be done in all on-site habitats over several seasons, and ideally over several years, to provide a reasonable picture of what species utilize which portions of the site and for what portion of the lifecycle."¹⁵ As is evidenced by the small number of reptiles and amphibians uncovered, the most cryptic species can easily go undetected during the course of a single study. As such, this list should by no means be considered exhaustive of the potential species on site, State-listed or otherwise.

A second area where the Applicant did provide additional information was with respect to DEM's concerns about night lighting and light pollution. This additional information came in the form of pre-filed testimony from Trevor Hollins of HDR Architecture, Inc. Mr. Hollins outlined strategies to make outdoor lighting at the proposed facility "less intrusive than the existing Algonquin Facility." Mr. Hollins identified three strategies: lowering of illumination intensity, controlling direction of emitted illumination, and minimizing the spectrum of light. These strategies and the details Mr. Hollins put forth have the potential to greatly reduce the amount of light pollution emitted by the Facility. However, in the past, the Applicant has heavily qualified its discussions about measures to minimize light pollution, as indicated in the following response excerpted from DEM's Third Data Request:

The CREC facility is an industrial facility that has many areas of high energy equipment that must be visually checked during operation and maintenance activities, both during the day and at night. As such nighttime lighting is a critical aspect of plant safety. The onsite lighting plans will be evaluated to minimize lighting impacts concerning wildlife. The CREC lighting design will be the minimum necessary to ensure plant safety. The lighting will be designed to minimize un-needed off-site impacts to the extent practical. This will include selection of light fixtures that are designed to direct light down as long as that

¹⁵ DEM Advisory Opinion (September 12, 2016), at 20.

allows the plant equipment in that area to be fully lighted during operation to support visual inspections. Lighting will not be installed in areas that do not require it to the extent practical. Light impacts to the community and wildlife should be addressed by this approach.¹⁶

As such, until a lighting design plan is produced which details exactly where, when, and how the proposed measures will be implemented and what if any areas the Applicant deems cannot safely use the strategies discussed, it is impossible to judge the efficacy of these measures.

Finally, new information has become available raising further concerns with respect to fish and wildlife impacts.

The Burrillville Interconnection Project (BIP)

At the time DEM was asked to address “the cumulative environmental impacts of the proposed Facility given the relative proximity of the proposed Facility to the existing Ocean State Power Plant and the Algonquin Compressor Station,” the Applicant had not yet submitted its EFSB application to construct the BIP nor its Application to Alter Freshwater Wetlands (the “Wetlands Application”), the latter of which addresses wetland impacts to both the CREC and the BIP. Given that the EFSB asked DEM to consider cumulative impacts of natural gas facilities in the state, and as these two projects are inextricably connected (i.e. each cannot happen without the other), DEM considers the information provided for the BIP relevant to its supplemental opinion in spite of the Applicant’s objections to the contrary.¹⁷

The Wetland Application describes BIP work along a section of right-of-way that cuts through one Natural Heritage Area associated with ten different species of rare plants and one State-listed dragonfly in the State’s natural heritage database and a second Natural Heritage Area

¹⁶ Clear River Energy LLC’s Response to the Rhode Island Department of Environmental Management’s Third Set of Data Requests, Response 3-21, (August 4, 2016).

¹⁷ See Objection of Clear River Energy LLC to Certain Data Requests included in the Rhode Island Department of Environmental Management’s Fourth Set of Data Request, dated May 31, 2017.

associated with one additional plant species. Five of these plants have not been located in some time and their status is currently unknown. Another six of these rare species, including the listed dragonfly, were located again more recently and are likely to persist in the site vicinity as indicated from Natural Heritage database records. Of these six species, four of the State-listed plants were found on or in the vicinity of the project during studies conducted by the Applicant between 2008 and 2016. The Applicant's RIDEM and USACE Permit Drawings identify a number of "protected habitats" associated with these State-listed species, yet a number of these are within or immediately adjacent to the limit of tree clearing and/or limit of disturbance. The Applicant lists actions to try to minimize impacts to these known populations.¹⁸ However, given the locations of some of these populations and the realities of construction sites, not to mention the Applicant's admission that "clearing of overstory may impact the long-term viability of these state-listed plant populations," this work certainly has the ability to negatively impact "state conservation priorities and plans, fish and wildlife habitats, and rare species, including those identified in the Rhode Island Natural Heritage database."

The larger of the two Natural Heritage Areas described above overlaps a High Value High Vulnerability ("HVHV") Habitat, as designated in the RI Wildlife Action Plan. This habitat consists of the hemlock/hardwood forest that flanks either side of the Clear River and its associated forested swamp on either side of the ROW. Within the linear strip of the ROW itself, the wetland is emergent marsh, and the surrounding upland is maintained as grassland/shrubland. The proposed work would extend the managed area into the HVHV Habitat.

In addition to two vernal pools within the footprint of the proposed CREC, both of which were found to have wood frog and spotted salamander egg masses in the spring, the Applicant

¹⁸ Clear River Energy LLC's Response to the Rhode Island Department of Environmental Management's Fourth Set of Data Requests, Response 4-25.

indicated that there are an additional three vernal pools out of a total of fourteen depicted on plan sheets “that are within approximately 40 feet of proposed construction activities on the TNEC ROW [BIP]. The other eleven vernal pools are not close to proposed tree clearing or construction activities.”¹⁹ It is difficult to determine the exact distances of the fourteen vernal pools in and along the ROW from the proposed limits of clearing and disturbance from simply reviewing the RIDEM and USACE Permit Drawings submitted by the Applicant. However, based on those drawings the depictions of these vernal pools seem to contradict the Applicant’s assertion (i.e. far more than three of them appear to be close enough to be impacted by tree clearing and other work). Additionally, while forty feet may be a reasonable distance to assess direct impacts to individual pools, such as the loss of shade, it cannot be assumed to cover all impacts to species that use these pools, such as the forest dwelling wood frogs and spotted salamanders.

The proposed BIP work crosses several streams that are important for freshwater fish populations, including the state’s only coldwater species of fish, the brook trout. Native brook trout, a Species of Greatest Conservation Need in Rhode Island, are found in Mowry Brook and the Clear River,²⁰ as well as in the Nipmuc River, a tributary of the Clear River. The Chockalog River (a tributary of the Nipmuc River) crosses the footprint of the proposed BIP project just prior to its confluence with the Nipmuc River. Consequently, while fish surveys have not been conducted in the Chockalog River, brook trout are likely there given their presence in the Nipmuc River.

Vegetation along these streams provides shade and cooling as well as bank stability. As such, vegetation removal near these streams has the potential to negatively impact freshwater fish,

¹⁹ Clear River Energy LLC’s Response to the Rhode Island Department of Environmental Management’s Fourth Set of Data Requests, Response 4-27.

²⁰ The Clear River is also identified as a major wildlife corridor in the 2015 Rhode Island Wildlife Action Plan.

and especially this cold water species. Moreover, work occurring during the fall and early spring would be particularly detrimental as this is the spawning and hatching season for brook trout.

It should be noted that Round Top Brook, in the area of the transmission line crossing, contains the following warmwater species: fallfish, redbfin pickerel, white sucker, golden shiner, creek chubsucker, largemouth bass, and tessellated darter.

Wetland Impacts and the Wetland Review Process

In both its May 31, 2017, motion objecting to DEM's Fourth Set of Data Requests and its June 19, 2017, Response to that same set of requests, the Applicant indicates that many of the concerns that DEM raised in order to comply with the EFSB's Orders will be addressed through the wetland permitting process.²¹ Unfortunately, as previously stated in DEM correspondence, including DEM's Advisory Opinion, the permitting processes under DEM's jurisdiction and outside of the EFSB process do not address some of the most severe impacts that would result from construction of the proposed Facility. The following examples are illustrative.

Via the Wetlands Application, DEM has an obligation to review impacts to the wetlands and their associated buffers. However, its jurisdiction does not extend to assessing forest biodiversity impacts or other impacts that have come to light during the EFSB process that occur outside of wetlands. As such, impacts to forest interior birds such as the black throated blue warbler will likely not be addressed in the wetland review process. Similarly, while DEM would address proposed impacts to on-site vernal pools via the wetland permitting process, it would not be able to address the associated upland habitats critical to many vernal pool species, some of which (e.g. spotted salamanders) spend the majority of their lives in upland habitats with ranges that can extend more than 750 feet from the vernal pool.

²¹ See Clear River Energy LLC's Response to the Rhode Island Department of Environmental Management's Fourth Set of Data Requests.

Invasive species is another complex threat to wildlife and habitat that follows development and which is only partially addressed through the wetland review process. DEM tries to ensure that applicants minimize impacts. However, its inability to account for most upland areas once again limits its capacity to do so. Even with a dedicated and diligent land manager, the time and resources required to monitor and control the spread of invasive species following disturbance can be quite extensive.

While the above issues are not unique to the proposed project it is important to note that the Core Natural Area in which the proposed Facility would be constructed is the fifth largest in the state, the largest in the northern half of the state, and remains a high conservation priority for Rhode Island. As discussed above, the permitting processes to which the Applicant would have EFSB defer to do not address forest loss and fragmentation, any loss of upland habitat, nor impacts to state listed or otherwise at-risk species outside of wetlands. As such, it is erroneous to assume that such impacts to wildlife habitat should not be addressed except through the DEM's Freshwater Wetland Application and the federal Clean Water Act review.

Even if there was an established regulatory process by which DEM could address such impacts, their mitigation might not be possible. The RI Wildlife Action Plan identifies habitat fragmentation as one of foremost threats to Rhode Island's biodiversity, including State-listed plants and animals and other Species of Greatest Conservation Need. Given the weight of this threat in an already fragmented landscape, the best course of action is to avoid further fragmentation to the greatest extent practicable, to focus conservation on the best and least impaired blocks of habitat, and to focus restoration efforts on restoring connectivity of intact habitats rather than to continue to fragment landscapes and look for mitigation elsewhere. As the DEM Advisory Opinion indicated,

[T]he majority of the ecological impacts from the Facility will occur in upland areas outside the scope of the wetlands permit, and outside of the jurisdiction of DEM's Office of Water Resources, US Army Corps of Engineers, and the US Environmental Protection Agency. Further, since the majority of impacts relate to permanent loss of interior forest, they would be exceedingly difficult to mitigate despite a good faith effort to do so.²²

The harms of forest loss and fragmentation are well documented in the literature. Unfortunately, notwithstanding the additional information provided, a detailed explanation supporting the conclusion of the "harm to the environment that this project would cause" with respect to fish and wildlife and beyond that which was already provided in DEM's Advisory Opinion is still not possible. The ecology of a place, or the relationships of its organisms to their physical environment and to one another, is extremely complicated. No one survey, no matter how well conducted, will produce a comprehensive answer to the value of an ecological community or the scope of harm caused by its compromise. As such, ecologists rely on landscape-level assessments to accompany survey efforts, particularly where extensive survey is not available. Landscape-level cues include the continuity of the primarily forested landscape and the higher elevations and cooler microclimates of the Western Forest cited in DEM's Land Acquisition Plan²³ and referenced in DEM's original Advisory Opinion. They also include the landscape connectivity assessments provided by the RI Wildlife Action Plan's Conservation Opportunity Areas and by The Nature Conservancy's flow modeling. All of these landscape-level assessments identify the subject parcel as being of high-value for wildlife. The diverse number of plants and animals, and the larger than typical number of state-listed species, found prior to and during the single-season CREC survey support DEM's conclusion that this site has high wildlife value.

²² DEM Advisory Opinion (September 12, 2016), at 22-23.

²³ Rhode Island Department of Environmental Management, *Protecting Our Land Resources: A Land Acquisition and Protection Plan for the Rhode Island Department of Environmental Management* (1996).

- v. *Whether the Facility will present an unacceptable harm to the environment.*
- ix. *Identify and characterize the scope of the harm to the environment that this project would cause, and if it determines such harm to be unacceptable to provide a detailed explanation supporting that conclusion.*

DEM has combined the two advisory opinions given that both essentially ask whether the proposed project presents an unacceptable harm to the environment. As stated in DEM's Advisory Opinion:

DEM is charged with determining whether projects and activities present an acceptable harm to the environment through the various permits, licenses, and reviews authorized under the Rhode Island General laws and the associated rules and regulations promulgated thereunder. Projects and activities determined to be compliant with the thresholds and standards set for acceptability in those various rules and regulations, in the context of harm to the environment, are approved, often through the issuance of permits. Conversely, projects and activities that have an unacceptable level of harm to the environment either result in denial of permits and approvals for the proposed project or activity, or enforcement actions to stop and mitigate the harm for conditions not considered under an application before DEM.²⁴

Consequently, whether the Facility presents an unacceptable harm to the environment largely turns on whether it meets the standards for the various permits and approvals necessary for compliance with the applicable rules, regulations and statutes that the DEM is tasked with enforcing. Specific to the proposed project there are six impacts identified that are subject to federal and State environmental laws and regulations. In those laws and regulations, standards are established that govern how large of an environmental impact is acceptable. Those six programs include:

- Air pollution control;
- Alteration of freshwater wetlands;
- Management of storm water during construction;
- Management of storm water associated with specific industrial activity;
- Discharge of sanitary wastewater; and
- Disposal of industrial wastewater.

²⁴ DEM Advisory Opinion (September 12, 2016), at 29.

With exception of the on-site disposal of sanitary wastewater, each of these regulatory permitting processes is exempt from the EFSB review process. As a result, the Applicant must submit separate applications for permits for each of these specific components of the project, and outline in detail the environmental impacts specific to each activity. In the permit application, the Applicant must demonstrate that they will meet all the regulatory thresholds required in the applicable regulations. DEM reviews the applications in detail in accordance with well-established regulatory processes. If DEM finds that the Applicant has complied with the requirements of the applicable regulations, a permit will be issued for that proposed activity. The issuance of a permit indicates that DEM has determined that the nature and scope of the proposed activities are within standards for acceptable environmental impact established by State and federal laws and regulations.

The permitting process for on-site disposal of sanitary wastewater is not exempt from the EFSB review and decision process. In this case, DEM has reviewed an application for an on-site disposal system in accordance with normal regulatory practice and procedure and will provide the EFSB with a finding on the acceptability of that proposed system.

In each of these six programs, DEM personnel with knowledge and expertise in their respective fields have conducted substantial, but not yet complete, reviews of the permit applications submitted for the Facility. While final decisions have not been rendered, review processes have not yet been completed (including public notice and comment), and the Applicant must still satisfy its regulatory burden of responding to any comments and deficiencies that may be identified on those applications; based on the information currently available to DEM it appears that it is possible for the Applicant to meet its regulatory burden in each of these programs. Should the Applicant follow through and meets those burdens it would receive permits under each of these

programs for the Facility. To be clear, this in no way is meant to prejudge the outcome of the ongoing permitting processes, but rather to indicate that if, upon the completion of the regulatory processes, the requisite environmental permits are issued, it is a formal declaration that the proposed facility has met the standards and criteria for acceptable harm to the environment as established in State and federal laws and regulations.

In addition to the impacts outlined above that are clearly regulated by DEM, the Facility will also impact the environment in other ways as a result of construction and operation. Construction of the Facility will require substantial clearing of upland areas. In both its Advisory Opinion and this Supplemental Advisory Opinion, DEM has expressed concerns over such clearing, including impacts on upland ecosystems and habitat, as well as conserved and recreational lands, which are highly valued in this area of Rhode Island.²⁵ Unlike proposed impacts to wetland ecosystems, proposed alterations of upland areas are not subject to similar regulation and no standards for acceptable impacts are established in State or federal environmental law. Without such standards, DEM is unable to render an opinion on whether these proposed impacts are acceptable or not. However, DEM strongly urges the EFSB to consider the foundation of the wetlands regulatory construct when evaluating this area; that such impacts must be avoided and minimized to the maximum extent practicable, through specific conditions and requirements, if the Facility is ultimately approved.

Respondent: Terrence Gray, PE
Associate Director for Environmental Protection

²⁵ DEM Advisory Opinion (September 12, 2016).

- ix. *Impacts of Invenergy's water supply plan, and any other elements of the project – including new permit applications – that have been added, updated, or modified since its original advisory opinion was issued.*

Since the DEM Advisory Opinion was issued Invenergy has submitted a revised water supply plan, an application to construct an On-Site Wastewater Treatment System (the “OWTS Application”) and a Request to Alter Freshwater Wetlands Application (the “Wetland Application”). DEM will assess the impacts of each of these separately.

Revised Water Supply Plan

On January 11, 2017, Invenergy submitted a revised water supply plan. Under the water supply plan Invenergy had secured a commitment from the Town of Johnston to provide water to supply the Facility's process water needs. Water will be transported to the Facility and stored on site, and used process water will be transported offsite for disposal. DEM has reviewed the water supply plan, and it appears that no new permits from any of DEM's Surface Water Protection Programs will be required. However, two RIPDES permits for stormwater, one associated with industrial activity and one associated with construction activity, will be required. Moreover, the wastewater (used process water) is slated for disposal at a yet unknown facility. Without identification of the receiving facility for wastewater DEM is unable to determine at this time whether a pretreatment permit or a Rhode Island municipal Wastewater Treatment Facility is required.

As the water is being supplied by the Town of Johnston there are no impacts associated with water withdrawal. For impacts associated with the disposal of the wastewater, until a receiving facility is identified DEM cannot opine on that issue. As the used process water is considered industrial wastewater it will require disposal at an appropriate facility. The appropriateness of a facility will be determined by the wastewater's chemical composition.

Presumably, the water will be treated and disposed of in accordance with applicable regulations such that there would be minimal if any impacts associated with disposal.

Onsite Wastewater Treatment System Construction Application

On March 7, 2017, Invenergy submitted an OWTS Application to construct an on-site wastewater treatment system (“OWTS”). As denoted in their water supply plan, the OWTS would be utilized to treat the Facility’s sanitary sewage. There would be no comingling of the Facility’s process water with the sanitary sewage.

Under the EFSB statute, DEM does not have the authority to issue the OWTS permit. Instead, DEM must issue a recommendation to the EFSB whose approval/denial for the Facility will be deemed an approval/denial of the OWTS permit. The OWTS permit review process will be completed once a Wetlands application review is completed to allow for a recommendation to the EFSB. The EFSB is then free to incorporate that recommendation into its final decision. Irrespective of the EFSB process, DEM is unable to issue the OWTS permit until the wetland’s permit is issued.

Request to Alter Wetlands Application

On April 4, 2017, DEM received the Wetland’s Application for the Clear River Energy Center. Pursuant to the *Rules and Regulations for Governing the Administration and Enforcement of the Freshwater Wetlands Act* (“Wetland Regulations”) the Wetland Application covered anticipated impacts to wetlands for both the Facility and the BIP. On June 19, 2017, DEM issued a letter of deficiency notifying the Applicant that DEM was suspending review of the Wetlands Application. Specifically, DEM’s initial site and file review revealed that the Applicant had not provided sufficiently detailed site plans to allow DEM to conduct its review. DEM’s June 19, 2017, letter outlined, in detail, the necessary items required to be addressed in order for DEM to

continue its review of the Wetland Application. Pursuant to the Wetland Regulations, the Applicant has one (1) year from the date of the letter to submit the requested information.

Inevitably as the review process progresses, and through consultation with the Applicant, changes may be made from the original proposal which would alter impacts to wetlands. Consequently, it is too early for DEM to ascertain the magnitude and extent of the impacts to wetlands, except to say that there will be impacts to wetlands. As already noted herein, the Wetlands Application only addresses those impacts associated with wetlands. To the extent impacts occur in areas outside the wetland and associated buffer, they are not addressed through the wetland application process.

Rhode Island Pollutant Discharge Elimination System Permits

The proposed project involves the proposed disturbance of greater than one acre and also proposes new impervious areas. In order to address the regulatory requirements of the *Rhode Island Pollutant Discharge Elimination System* (“RIPDES Regulations”) and to ensure compliance with the *Rhode Island Stormwater Design and Installation Standards Manual* (RISDISM) an application for Stormwater Construction Permit and Water Quality Certification was submitted on April 26, 2017. This application includes a Soil Erosion and Sediment Control Plan and plans and analysis of proposed stormwater management practices. The project is being reviewed for compliance with the *Rhode Island Pollutant Discharge Elimination System Construction General Permit* (CGP) and RISDISM. The processing of this application is concurrent with, and part of, the Freshwater Wetlands Application review. Consequently, if and when a permit to alter wetlands is issued it will include authorization to discharge under the RIPDES General Permit and will include approval of the construction of proposed stormwater management practices and other applicable terms and conditions.

Respondents:

**Ernie Panciera,
Supervising Environmental Scientist**

**Mohamed Freij, PE, PLS
Supervising Sanitary Engineer**

**Charles Horbert,
Supervising Environmental Scientist**

**Nicholas A. Pisani, PE
Principal Civil Engineer**

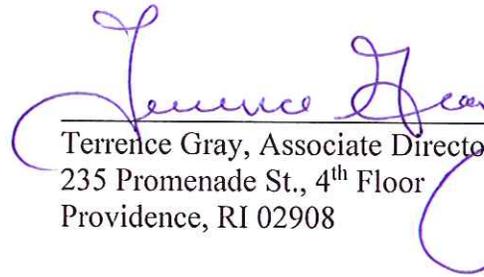
Testimony Topic:

Revised Water Plan

OWTS Application

Wetlands Application

RIPDES


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CERTIFICATE OF SERVICE

I hereby certify that on August 15, 2017, 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. Hoefsmid

SB-2015-06 Invenergy CREC Service List as of 07/11/2017

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