



April 19, 2016

Secretary Matthew Beaton
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Ed DeWitt
Executive Director

BOARD OF DIRECTORS

Robert Cunningham
President

Attention: Holly Johnson

Margo Fenn
Vice President

RE: Canal Unit 3 Draft Environmental Impact Report, EEA # 15407

Eliza McClennen
Vice President

Dear Secretary Beaton:

Robert Summersgill
Treasurer

The Association to Preserve Cape Cod (APCC) is the Cape's leading nonprofit environmental and advocacy organization. Founded in 1968 and today representing over 5,000 members across the region, APCC's mission is to preserve, protect and enhance the natural resources of Cape Cod. APCC has reviewed the Canal Unit 3 Draft Environmental Impact Report (DEIR) and offers the following comments.

Elizabeth Nill
Clerk

Barbara Brennessel

Elliott Carr

General

Michael Corrigan

According to the DEIR, the project applicant proposes a new fast-starting 350-MW peak electric generating unit at the Canal Generating Plant in Sandwich. The project is intended to provide additional capacity to the southeast Massachusetts and Rhode Island region during peak energy demand times for up to 4,380 hours per year. It will run primarily on natural gas, with up to 720 hours per year on ultra-low sulfur distillate (ULSD) as backup fuel. The DEIR also states that the project "will be equipped with state-of-the-art emissions control technologies" and "near-zero liquid discharge designed to reduce water demand."

Anne Ekstrom

Katherine Garofoli

Thomas Huettner

Elizabeth Jenkins

Blue Magruder

APCC supports the evolution of energy production away from fossil fuels and toward new development that utilizes clean and renewable sources of energy. As energy demands continue to grow across the region, it is imperative for producers to transition to clean and renewable sources for the region's energy needs. APCC is curious if the project applicant considered testing the environmental and economic feasibility of tidal generation of electricity at the project site.

Maureen O'Shea

Donald Palladino

Charles Sumner

Daniel Webb

Despite the proposed project's use of lower-emission fuels and the claim that it will serve to displace other power plants that use dirtier fuels, Canal Unit 3 will still produce greenhouse gases and other pollutants, and will increase the total emissions output of the Canal Generating Plant. APCC does support the proposed NRG Canal Community Solar project as a non-polluting new source of energy; unfortunately, the 1.5-MW solar project only offers a modest contribution toward reducing our dependence on fossil fuels and will not come close to offsetting emissions from the Canal Unit 3 project. That being said, as the regional grid grows more reliant in the future on wind and solar as significant energy contributors, APCC does recognize the potential for Canal Unit 3 to serve as a bridge for times when those green energy sources are not operating at their full potential to meet demand.

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Emissions

The DEIR reports that emissions from Canal Unit 3, when added to existing emissions from existing operations at the Canal Generating Plant, will comply with all applicable state and federal emissions standards, will not result in significant deterioration of existing air quality levels, and will be consistent with the Global Warming Solutions Act (GWSA). Still, the project will emit a significant amount of greenhouse gases (GHG), with carbon dioxide (CO₂) making up the single greatest proportion of GHG emissions. Under what the DEIR describes as a likely Canal Unit 3 operating scenario of 1,500 hours on natural gas and 200 hours on ULSD, the new generator would produce an estimated 355,505 tons per year of CO₂. Operating at the maximum allowable under the proposed permit, it would produce 932,325 tons per year of CO₂.

One of the challenges for the Secretary and specifically the Department of Environmental Protection under the GWSA is to determine how to account for projects like this one in determining annual aggregate emission limits. While the specific duties and responsibilities of DEP are before the Supreme Judicial Court on section 3(d) of the GWSA, there is no dispute that a declining annual aggregate for various categories of emissions is required. APCC recommends that the applicant should be tasked with addressing “declining aggregate emissions” and not simply stating that the plant complies with the GWSA.

The DEIR claims that Canal Unit 3, which is being proposed to operate as a cleaner and more efficient generator that would displace other generators in the New England grid currently in production, would result in a net decrease of 143,618 tons of GHG in the New England region over a 10-year period from 2019 to 2029. This offset, along with utilizing higher efficiency turbines and other efficiency features, development of the 1.5-MW solar project, and the yearly purchase of Regional Greenhouse Gas Initiative CO₂ allowances equal to the project’s CO₂ emissions, are being proposed as mitigation for the project’s GHG impacts. The DEIR also states that the applicant will develop “a package of local support measures with the town of Sandwich,” but that it is “premature to propose specific measures related to GHG at this time.” APCC would like to see more specific proposed measures to further mitigate the project’s GHG impacts, and is particularly interested in proposed mitigation that addresses local and regional impacts from the project.

The DEIR reports that the existing Canal Generating Plant is classified by the EPA as a major hazardous air pollutant (HAP) emissions source, a category that has the potential for emissions of greater than 10 tons per year of any single HAP. The Canal Unit 3 project is a modification of the existing Canal Generating Plant major HAP source and therefore will operate under this category. APCC would like more information on proposed measures for Canal Unit 3 (or the current facility) to mitigate HAP emissions.

The project triggers a threshold for Nitrogen oxide (NO_x) emissions that requires the applicant to provide an additional five percent in NO_x offsets. The applicant proposes to meet this offset requirement through 4,209.2 tons per year of NO_x that it says it controls from the permanent shutdown of the Lovett Generating Station in Tomkins Cove, New York. APCC points out that Lovett Generating Station was forced to shut down in 2007 by the state of New York after the operator, Mirant, failed to reduce excessive emissions with new technology. APCC seeks clarification whether an emissions credit exchange agreement exists between Massachusetts and New York. If one does exist, or if credit exchange is permitted through another avenue, APCC seeks further clarification about Massachusetts’ policy of accepting credits from a plant that has been ordered to shut down for emissions violations.

APCC requests that the Secretary require the legal applicability of these proposed credits to be explained in detail in the FEIR.

Off-site mitigation has always been a challenge for environmental permitting. The Supreme Judicial Court in the City of Brockton v. Energy Facilities Siting Board case pointed out that off-site mitigation should reduce impacts and increase environmental benefits to the affected population. APCC is concerned that the proposed offsets described above, from an emissions source located in the state of New York, will have few mitigating benefits for the immediate Cape Cod region, which will be directly exposed to the actual emissions from the project. NOx emissions represent a source of nitrogen loading to the Cape's coastal and inland water bodies. Cape Cod communities are working to meet the requirements of the Cape-wide Section 208 Water Quality Management Plan and Total Maximum Daily Loads (TMDLs) for nitrogen in coastal embayments. Controlling this source of nitrogen is important for ensuring that nitrogen TMDLs are met.

Hazardous Materials

The DEIR describes a number of hazardous materials that will be transported to, and stored at, the project site. APCC could not readily determine from the DEIR the quantity of hazardous materials that will be stored on-site at any given time, or how this amount differs from the quantity of hazardous materials currently stored at the Canal Generating Plant. This information should be provided in the Final Environmental Impact Report (FEIR).

APCC remains concerned about the potential for spills or atmospheric releases of hazardous materials that could adversely impact water resources or human health. Aqueous ammonia (NH₃) will be transported by rail and stored on-site in two existing 60,000-gallon tanks. The ULSD fuel will be transported by barge up the Cape Cod Canal and delivered to the project site through a new unloading pipeline. A spill of NH₃ or ULSD would be a potentially disastrous environmental and health threat. APCC seeks assurances that the Canal Generating Plant's current safety plan will be modified and reviewed by federal and state agencies to ensure that the most stringent safety precautions and contingency plans for Canal Unit 3 are in place and closely followed. Despite precautionary practices and proposed containment measures, accidents can and do happen.

Climate Change Adaptation and Sea Level Rise

APCC strongly believes climate change adaptation planning must be an integral component of all future infrastructure projects, particularly those in close proximity to the coast. The DEIR describes proposed project plans to increase project resiliency against climate change, including impacts from severe storms and rising sea levels. Mitigation measures include plans to raise the topography at the project site above anticipated sea level rise and storms surges from coastal storms. The DEIR states that these proposed changes will not increase the risk of flooding to neighboring properties or impact adjacent wetland resources. While APCC welcomes the project plans that anticipate sea level rise and that include climate change adaptation and resiliency strategy designs, APCC is not aware of any project involving filling of land subject to flooding that does not impact neighboring properties. APCC recommends that the Secretary require detailed modeling of the proposed topography change and how it relates to neighboring properties.

Water Supply Wells

In the project's Environmental Notification Form (ENF), the applicant identified well #4 as the proposed source of water for the project. In comments on the ENF, APCC questioned what, if any, impact the well would have on nearby wetlands, and whether anticipated sea level rise would impact use of the well. In

the DEIR, the applicant stated that well #4 is no longer being considered for the project, and that wells #2 and 3, which are currently in use by the Canal Generating Plant, will be used for Canal Unit 3 and are not expected to impact area wetlands. Analysis described in the DEIR determined that the previously-proposed well #4 would not be impacted by sea level rise, but it is unclear if this determination was also made for wells #2 and 3. APCC seeks further clarification on this issue.

Stormwater Management and Wastewater

The DEIR describes a stormwater management system that incorporates low impact development (LID) techniques and Best Management Practices (BMPs). This plan includes designs for treated stormwater to enter into vegetation infiltration basins, with no stormwater runoff discharging into nearby wetlands or the Cape Cod Canal. APCC supports the plan to use LID techniques and BMPs, which according to the DEIR will improve water quality at the site compared to existing conditions. APCC also supports project plans that minimize water use and that will result in no project site discharge of wastewater produced by operation of the turbine.

APCC thanks the Secretary for this opportunity to provide comments, and looks to the issuance of the FEIR for more information about emissions impacts and mitigation, the use and storage of hazardous materials and other pertinent project-related issues.

Sincerely,



Edward DeWitt
Executive Director



Don Keeran
Assistant Director