



COMMONWEALTH OF MASSACHUSETTS
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Secretary

Judith F. Judson
Commissioner

23 September 2016

Matthew Beaton, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: Nagog Pond Water Treatment Plant, Acton, Massachusetts EEA #15446

Cc: Arah Schuur, Director of Energy Efficiency Programs, Department of Energy Resources
Judith Judson, Commissioner, Department of Energy Resources

Dear Secretary Beaton:

We've reviewed the Draft Environmental Impact Report (DEIR) for the Nagog Pond Water Treatment Plant. Our comments are limited to GHG associated with the building, PV, and CHP. The DOER did not review the proposed improvements associated with the water treatment system itself.

We are pleased to see numerous efficiency measures analyzed and adopted. We are also very encouraged to see a significant effort to incorporate on-site renewables, as well, including 195 kW of ground-mounted solar PV and combined heat and power (CHP).

We understand that, unfortunately, solar PV is currently off the table due to neighborhood objections, despite significant efforts by the proponent, while CHP remains an option. Usually, the DOER is supportive of CHP. However, for the reasons stated below, we do not recommend CHP be utilized for this project.

Our detailed comments are as follows:

1. It's noted that the building is less than 10,000 sf in size and proposed building mitigation follows prescriptive stretch code, incorporating improved walls, window, and roof insulation, as well as HVAC, lighting, and other improvements.

Nagog Pond, EEA #15446
Acton, Massachusetts

2. We recommend that the proponent engage with the local utilities as soon as possible to investigate energy efficiency incentives with their new construction program. (Links provided to the right.)

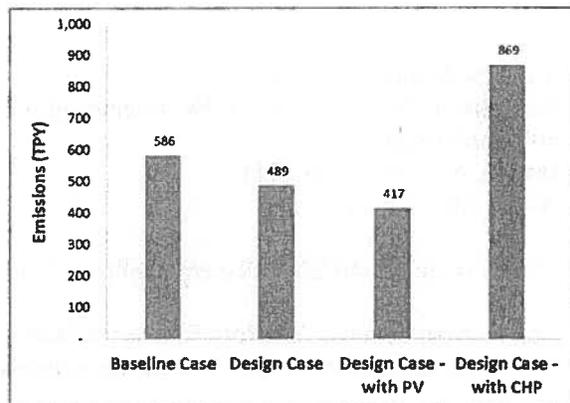
New Construction EE with National Grid and Eversource:

<https://www.nationalgridus.com/Trade/EE-Programs-Solutions/GI-New-Construction-Services>

3. Because the facility has near-negligible heating needs, the use of CHP for this project would actually increase emissions significantly. We estimate that, as proposed, GHG emissions would increase by a factor of nearly 2 compared to the design scenario without CHP. (See below)

This occurs because, unfortunately, CHP's usual advantage of offsetting concurrent heating load is not mobilized, significantly impacting its effectiveness.

The DOER does not recommend the use of CHP as proposed for this project.



Sincerely,

Paul F. Ormond, P.E.
Energy Efficiency Engineer
Massachusetts Department of Energy Resources