

June 10, 2021

Responses to NuPower Interrogatories to Joe Provey

1. Reference Your March 2, 2021 Intervenor Status Request Form. Please provide a list of the members of the board of directors for Seaside Village.

The Seaside Village Board of directors consists of seven members: Mary Ann Provey, President; Monroe Hassell, Vice President; Ulysses Fernandez, Secretary; Adrienne Free-Mulaire, Yolanda Ramos, Jim Young, and Vincent Aurelia

2. Reference Your March 2, 2021 Intervenor Status Request Form. Please provide a photo of the Site taken from any location at 165 Flanders Street, Bridgeport, CT and provide a map showing the location from which the photo was taken.

My role as intervenor was not intended to protect only my views, personal health or wellbeing. I am intervening on behalf of Seaside Village and the greater community of the South End of Bridgeport. Please see over 200 signed petitions and dozens of public comment letters (flyer petitions emailed to CSC and service list on June 8). So it is unclear why you want a photo of the site only from my home.

Nevertheless, I welcome the opportunity to supply photos of Seaside Village (Village photos A, B, C). [Note that letters correspond to locations on Map of Area.] Although I cannot see the proposed site from my building at 165-169 Flanders Street (see photo D), many Village residents can. At least 26 units would have a view of the proposed facility. Despite the intervening overpass, there is a clear line of sight to the proposed site under the roadbed. To say it cannot be seen is to obfuscate. See photo E of the site as seen from the corner of South St. and Iranistan Avenue, a Seaside Village boundary (see Map of Area) from which photo were taken approximately 480 ft. from the site (X). The next photo (F) is taken in the opposite direction and shows Seaside Village from the southernmost boundary of the site. Photo (G) shows a view from the site, through the railroad underpass, to Iranistan north of the site. The video (H) pivots from the Village, across the site, and up Iranistan Avenue to the north.

Our issue is not about my view but the views of many. Hundreds of homes north of the railroad tracks, many located in the Division St. Historic District (See Map of Historic Districts), would also have a view of the proposed plant. With the elevated track at about a third of the height of the 70-plus foot facility, it would be possible to see over the tracks to the fuel cell tower from many areas (including nearby Wentfield Park).

Many residents of Windward Commons, an affordable housing development of nearly 500 apartments that is being constructed across the street from Seaside Village, would also see the fuel cell tower. See attached photo (I) of phase 1 for what the apartments look like. The 3 and 4 story apartment buildings will be raised about 14-ft. because of flooding and would have a view of the proposed facility over the low-lying businesses on South Avenue. See video (J) that pivots from the proposed site toward the Windward Commons construction site.

Other points of interest on the map include (K) Wentfield Park (note that upper stories will be visible from this vantage point); (L) Seaside Park, (M) University of Bridgeport, (N) Harbor Station and PNG gas plants, and (O) Resco (trash to energy) plant.

Moreover, thousands of South End residents and visitors will drive by this site as it is the primary gateway to Seaside Village and Windward Commons, and a primary gateway to Seaside Park and University of Bridgeport. To get an idea of how busy this intersection is, see video (P). It is a desperately needed open patch of green in a space that's been dissected for purposes of rail and train transportation – but that could be used to serve the community in other ways.

3. Reference Your March 2, 2021 Intervenor Status Request Form. As a former editor of “national several [sic.] science and building design magazines”, do you agree that fuel cells are classified by Connecticut state law as a source of renewable energy in Connecticut and that as a distributed generation resource they displace grid CO2 emissions?

(1) Yes, they may be classified as such, but a source that uses a fossil fuel to generate electricity is not, by definition, renewable. “Renewable energy comes from a source that is not depleted when used, such as wind or solar power,” according to the Oxford English Dictionary. Calling a fossil-fuel-powered electricity generating plant, particularly one that relies upon environmentally devastating fracked natural gas, as well as consequent methane leakage into the atmosphere, is another unconscionable example of greenwashing.

(2) No, phosphoric fuel cells, unless coupled with substantial waste heat usage, do not displace CO2 emissions to a significant degree if at all, especially on a local level.

Their efficiency is typically 42 percent according to the Department of Energy <https://www.energy.gov/eere/fuelcells/types-fuel-cells>. The efficiency of a combined-cycle gas plant, such as the 485-MW Harbor Station No. 5 facility recently built in the South End, is 50 to 60 percent efficient (essentially because it uses waste heat to generate more electricity).

Further, DEEP in its comments on petition 1406 clearly stated that such a project would hinder the state in reaching its goals: “It should be noted, however, that although these emissions are not currently regulated under air permitting, state law, in accordance with the 2018 Act Concerning Climate Change Planning and Resiliency, calls for a 45 percent reduction in greenhouse gas emissions by 2030 (from 2001 levels) and an 80 percent reduction by 2050. Therefore, such projects hinder our ability to achieve our climate goals including a 100% zero carbon electric supply sector as charged by Governor Lamont’s Executive Order No. 3.” Subsequent to this statement, President Biden has called for even greater reductions of greenhouse gas emissions.

See response to interrogatory 4 part b (below) for additional support for our assertion that this facility would not offset carbon dioxide emissions in CT and, in fact, would be a net contributor.

4. Reference Your March 2, 2021 Intervenor Status Request Form and Your April 10, 2021 email to Melanie Bachman. As a former editor of “national several [sic.] science and building design magazines” (a) do You agree that the Connecticut Siting Council does not have jurisdiction over the “thermal loop” and (b) provide documentation to support Your statement that “[NuPower’s] argument that the fuel cell emissions will be offset by the thermal loop is no longer viable.”

(a) The Siting Council may not have jurisdiction over the thermal loop, but it was discussed at length in comments to petition 1406 and we find it disingenuous to attempt to exclude such discussion here. For example, DEEP Senior Environmental Analyst Frederick L. Riese, in his comments, squarely hits the nail on the head: “Based on discussion in Attachment 3, the PURA decision, however, there is still uncertainty about who the customers for the thermal loop will be, the type of heating and hot water technologies those customers would retire (and the associated emissions avoided), and how much of the thermal loop capacity will be under contract. In short, to the extent that this feature of the proposal is used to meet the heat and hot water needs of area institutions and facilities, it represents an opportunity to offset other energy use and potentially some emissions those displaced energy sources would have generated, but the extent of such emissions avoidance is unclear at this time.”

It was unclear a year ago. It was unclear seven years ago when first proposed. Without an accounting and sufficient contracts for waste heat sourcing and usage, it remains unclear today. Without a plan for the district thermal loop, without clear commitments for its use by a sufficient number of customers, without permits, we would request that CSC commissioners view the promise of a thermal loop with a healthy dose of skepticism. Governor Malloy vetoed it because of concerns about oversight. <https://www.ctpost.com/local/article/Gov-dumps-cold-water-on-Bridgeport-thermal-loop-11283915.php> Without politically driven legislation giving the project new life, we would not be discussing it today.

PURA discusses the thermal loop at length in its comments on the project. (See Attachment 3 to your initial petition filing.) It raised many concerns about high cost, an unreasonable ROE, and whether the thermal loop was indeed viable: “To evaluate district heating systems and their ability to reduce greenhouse gas emissions and natural gas demand requires actual thermal loop customers to offset the thermal energy from the CHP system,” says PURA. It may also require other producers of waste heat to tie into the thermal loop. The nearby trash to energy plant, which would seem like a perfect fit, has declined to do so – despite being promised as a heat source four years ago. Neither of the local gas plants are participating either. The thermal loop does not exist and may not exist for many years, if ever. If it does get built, it may offset insufficient emissions in the South End to be a benefit.

(b) Unless the thermal loop is built and has commitments to utilize most if not all of its waste heat, the fuel cell facility becomes a much less attractive project. The Levitan analysis, discussed in petition 1406, states that without the thermal loop (or with insufficient usage thereof) there would be no offset of greenhouse gas emissions. It projects direct carbon dioxide emissions of the facility over 20 years at 565,019 tons (which seems low based on your own calculation of 42,000 tons annually for 20 years, or 840,000 tons annually) and estimates expected avoided carbon dioxide emissions at 544,940 tons. According to the Levitan analysis, this “results in an increase in 18,254 metric tons of emissions.” (See attachment 3, Petition 1406.)

All of this belies the fact that the South End of Bridgeport already produces far more than its share of power generation for the region.

5. Reference the Connecticut Siting Council’s December 17, 2020 Staff Report in Petition No. 1406 at page 2. Do you possess information that contradicts the following statement of the Siting Council: “The proposed facility is a distributed generation resource, and will contribute to fulfilling the State’s Renewable Portfolio Standard as a low emission Class I renewable energy source.”

Yes, see response to no. 3 (part 2) above. The DEEP senior analyst clearly states that he thinks the project will hinder Connecticut from reaching its emission goals. While the proposed facility may conform to Connecticut's standards as a low-emission energy source, it may end up being an emissions contributor instead. Nor is it renewable in the universally common understanding of the word.

Moreover, the debate about emissions, is secondary to the many other concerns raised in the community's response. The proposed site is a poor choice given its negative impact on multiple residential areas, including several districts on the historic registry. Impact on cultural resources is a key plank of the Connecticut Environmental Protection Act: "(4) preserve important historic, cultural, and natural aspects of our Connecticut heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice." Sec. 22a-1a It and should not be ignored. (See attachments to interrogatory response no. 2: Historical Districts Map, and South End Assets Map.)

6. Reference the Connecticut Siting Council's December 17, 2020 Staff Report in Petition No. 1406 at page 4. Do You possess information that contradicts the following statement of the Siting Council: "Air emissions produced during the operation of the facility would not trigger any regulatory thresholds."

The air emissions will cause the air quality in the South End of Bridgeport to continue to rise above levels considered safe and should be considered. Ground-level ozone, a respiratory irritant, is already higher here than in any area east of the Mississippi. According to the EPA, ozone can:

- Cause coughing and sore or scratchy throat.
- Make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath.
- Inflammate and damage the airways.
- Make the lungs more susceptible to infection.
- Aggravate lung diseases such as asthma, emphysema, and chronic bronchitis.
- Increase the frequency of asthma attacks.

<https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>

Furthermore, although the planned facility falls slightly below the threshold capacity for being accountable to Connecticut's Environmental Justice Law (9.66 MW vs. 10 MW) (CGS § 22a-20a), we believe the recommendations of this law should be followed. The slight .34 MW difference certainly falls within the margin of error. The law requires meaningful public participation, reasonably visible signs, written notice to environmental groups, and certification the applicant will follow

through. At the least, we believe there should be a public hearing with regard to this project.

7. Reference the Connecticut Siting Council's December 17, 2020 Staff Report in Petition No. 1406 at page 4. Do You possess information that contradicts the following statements of the Siting Council: "[the] proposed facility would emit 0.42 tons per year of methane (CH₄), <0.2 tons per year of nitrous oxide (N₂O), no sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs) or perfluorocarbons (PFCs), which are greenhouse gases defined in Regulations of Connecticut State Agencies Section 22a-174-1(49)... and emit negligible amounts of sulfur oxides, volatile organic compounds and particulate matter."

No, not at this time.

8. Please provide dates and instances of any explosions or fires associated with or caused by fuel cells manufactured by Doosan Fuel Cell of America.

We are not aware of any fires or explosions caused by Doosan equipment but as stated in my response to interrogatory no. 4 from the CSC, this facility is untried and untested in its current configuration. Nothing like it has been built in the United States, and it differs from prototypes built in South Korea. To install a unique and novel facility next to critical transportation infrastructure on a primary egress for thousands of residents, is reckless in our opinion ... especially with so many other properties available in the South End and West End that are not near residences, trains, or interstates. Of course, there have been many accidents with hydrogen fueling stations, natural gas, and fuel cells in general in the past. Here are a few.
<https://www.reuters.com/article/us-autos-hydrogen-southkorea-insight/hydrogen-hurdles-a-deadly-blast-hampers-south-koreas-big-fuel-cell-car-bet-idUSKBN1W936A>
<https://arstechnica.com/science/2019/06/after-june-fires-energy-group-says-hydrogen-is-futures-fuel/>

While we applaud Doosan's safety record, we feel a less vulnerable site choice would be in the best interest of everyone. If there was no risk Doosan would not, of course, have introduced such elaborate safety mechanisms, including large tanks of nitrogen gas, automatic valves, etc.

9. Reference Your April 29, 2021 Letter to the Editor of the CT Post. Provide any document or material upon which You base your claim that NuPower is seeking approval of a "seven-story tower."

In the building trades, a “floor” is typically about 10 to 12 feet high. Hence, a 70-foot building would therefore be about 6 or 7 stories high. To describe the facility as 3 ½ stories (as asserted by the petitioner) is misleading and confusing to the vast majority people. Even our local planning and zoning commission was confused at its June 1 meeting about the actual height of the fuel cell tower. NuPower principal Scott Guilmartin (the company’s other employee) didn’t help matters by claiming, on record, the height of the fuel cell tower was 60 feet and would fall below the height of the I-95 overpass. Both of his assertions are contradicted in his own petition. Please note that our informational flyer/petition, produced early in our campaign, describes the tower as “a 7-story (over 70-foot tall) tower of 21 fuel cells.” It was based upon Petition 1406. There was no ambiguity about height in any of our statements. (See attached flyer, which has already been signed by over 200 Bridgeport residents and counting.)

10. Please provide social media posts to include Facebook, Twitter, and Instagram by You concerning the Project as well as emails or other correspondence sent by You to the Board of Directors and/or residents of Seaside Village concerning the Project.

I have copied the Seaside Village board on both my interrogatories to the petitioner and my responses to interrogatories. This material is of course already available. I have not used Twitter or Instagram for the purpose of providing information about the NuPower/Doosan petition or our community’s opposition to it. I have posted on Facebook to Seaside Village News (a private FB group page):

February 12:

I’d like to share my list of questions to NuPower, which I sent off this morning. I copied those of you for which I have an email. If anyone else would like to stay in the loop, please send me your email address.

Hi Scott,

I’d be willing to meet, along with several others from our board and community. I understand Kate’s concerns about Covid but having had one shot, along with the fact we will be outside and masked, I feel safe. A follow up zoom meeting can be scheduled as well.

A few things I’d like answered though before the meeting:

What are the expansion plans and where would they go?

Where with this electricity go, and who precisely has signed up for using the waste heat from this facility?

Will the facility add CO2 and other air pollutants (benzene during filter maintenance, etc.)? [We have a document that says it will release large quantities of CO2.]

Were other sites under consideration during your process, and why were they rejected?

What options do you have for sound mitigation once the plant is built, and why not build them into the structure at the start?

Has there been an assessment of electromagnetic radiation (EMR)? Do you have an estimate of the increase in mG readings? [There is research to support negative health effects at 165 to over 1000 yards.]

And a related question: will the electric cables go underground or above ground?

While we understand the general benefits of fuel cells, and do not oppose them in principle, we need straight answers on these questions before we can condone a station so close to Seaside Village and other neighborhoods near Iranistan. Such a station will inevitably degrade the quality of life for all residents in the area and will likely depreciate their property values.

Sincerely,
Joe Provey

February 15:

I will be giving a quick update on the NuPower proposal during the monthly meeting this evening at 6. All welcome to ask questions and give the board your opinions.

February 18:

Hi All,

About a week ago, I wrote to the CT Siting Council to further understand how and why such irresponsible siting for a major energy installation could have been approved by the state.

Guess what...it wasn't. Yesterday I received a copy of a letter addressed to the fuel cell manufacturer (Doosan) and written by Melanie Bachman, the siting council executive director:

Dear Mr. Bonola:

At a public meeting held on December 17, 2020, the Connecticut Siting Council (Council) considered and denied without prejudice the above-referenced petition for a declaratory ruling that was submitted to the Council on May 11, 2020, with supplemental information submitted on July 9, July 27 and September 18, 2020 and information provided by NuPower Bridgeport FC, Inc. on November 10 and December 4, 2020, on the bases that the petition remains incomplete and the proposed facility appears to have a substantial adverse environmental effect, particularly with regard to matters of public health and safety.

The Council considered and identified the following deficiencies and potential adverse effects on public health and safety that include, but are not limited to:

1. Project plans provided lack site detail;
2. The petition does not address natural gas safety issues;

3. The petition does not address the safety implications of the proposed facility's location in relation to other existing infrastructure (ex. railroad, highway, electric transmission line);
4. The petition does not address potential vapor plume hazards to the adjacent highway or any potential mitigation measures; and
5. The petition does not address the potential to incorporate noise mitigation measures prior to the commencement of facility operation.

Enclosed for your information is a copy of the staff report on this project. Please do not hesitate to contact our office if you should have any questions.

Sincerely,

Melanie A. Bachman Executive Director

I am sure that Doosan and NuPower will be resubmitting their proposal with revisions. Hopefully, we can have a voice in this round of discussions.

February 19:

A few surprising facts about the fuel cell installation:

1. Number one, of course, is that the promoters of the project have failed to mention that the CT Siting Council rejected the fuel cell power plant petition. When were they going to mention this?
2. In addition to 42,000 tons of CO₂, the plant would emit significant quantities of methane and nitrous oxide, both of which are harmful to our protective atmospheric ozone layer.
3. The very pretty plant rendering fails to include many of the unsightly plant components that will be visible once its built. These include pumps, heat exchangers, ducts and piping.
4. The plant, which must be built upon 14 feet of fill to rise above flood levels, will exceed the height of I-95 and dominate the view of residential areas north of the railroad.
5. In 20 years, the plant will be decommissioned. But ... the concrete pads and steel structure will be left in place. Just like the coal plant, no one wants to pay for cleaning up their mess.
6. The NuPower petition says there is "no effect" on cultural (including historic) resources. I guess they missed 103-year-old Seaside Village (500 feet away), and University of Bridgeport, and Seaside Park a little further down the avenue.
7. The CT Office of Consumer Counsel believes the project is too expensive to be in the long-term interest of ratepayers. The Department of Energy argues the same. In other words, they don't want ratepayers left holding the bag should the project not perform according to estimates.
8. NuPower and its investors stand to make a quite high return on its investment. From what I can see, it's about 22 percent ... but finance is not my strength so it may be less.

There is a lot more detail in the questions posed by the Siting council. Feel free to dive in. Go to <https://portal.ct.gov/CSC> and look for Petition 1406.

February 25:

On Saturday, at 10:30, anyone interested in seeing a fuel cell in action is invited to Howard St. Developers of the fuel cell plant will be on hand to answer questions about the proposed fuel cell plant on Iranistan. The latter would take place in a community room, with plenty of space for social distancing. Please let me know ASAP if you'd like to attend.

February 28:

A group of Villagers, including board members Mary Ann Provey, Vince Aurelia, Uli Fernandez and Yolanda Ramos -- as well as Susan Fazekas, John Belinski, Diego Celis and myself -- attended yesterday's meeting with executives from NuPower, the developer of the proposed fuel cell project at 600 Iranistan and Doosan, a CT-based manufacturer of fuel cells. We got a tour of an existing single-module fuel cell that provides electricity and heat to the Great Oaks School and apartments. Afterwards, we had discussions that were quite informative.

Takeaways include:

These folks, despite being denied by the CT Siting Council for reason of health and safety, FULLY intend to go forward with the project. They believe they can satisfy the objections of the siting council in the coming few months.

The single fuel cell module at Cherry Street Lofts and its companion cooler bank of large fans (about the size of a three car garage) were even noisier than most of us expected, but the project designers claim that the completed project will be no noisier than what we were hearing (despite being 21 times bigger). They will incorporate sound-absorbing panels, if necessary.

The manager from Doosan made a convincing argument that the electromagnetic field created by the projects components is dwarfed by the existing high voltage wires along the highway and railroad.

The executives do not see the 42,000 tons of CO₂ per year and lesser amounts of methane and nitrous oxide emissions as an issue, primarily because they feel the net benefit of using the waste heat will offset these emissions. This is questionable. The only contract for use of waste heat today they say is with the new amphitheater (formerly the Bluefish stadium). They claim other contracts will come. Interesting to note: the project is only viable because of the waste heat component thanks to legislation that incentivizes this sort of development.

The total tax contribution to the city projected by the developer Dan Donovan is \$250k. Not a heck of a lot given the black hole of Bridgeport finances. Seaside Village by comparison pays \$400k.

Funding would partly come from being able to sell green credits to other polluters to the tune of \$20 million. Nupower would not divulge its other sources of funding. (Total project cost is about \$80 million.)

Doosan touted its safety record and built-in safety overrides. We saw numerous canisters of nitrogen gas on site that would be used to purge the explosive gases from the fuel cell modules in the event of a fire, gas leak, or other emergency. The plant would be dismantled after 20 years. (Gas, a fossil fuel, is not considered a long-term energy solution...just an interim step to a greener future.) While the group's petition states it will leave behind the steel superstructure, and large

concrete footings, these executives claim they will be removed. Not sure why the contradiction here. Nor am I sure what happens to the thermal loop customers once the plant is dismantled. How do they heat their buildings then?

Nupower's other arguments bordered on the ridiculous, including "what else could be built there?" (how about a green space or rain garden?); "we don't think it will be scary to walk past it" (you don't live here and you're not a school kid). Another one was, "we've already spent \$500k on permits and site design" (maybe you should have gotten siting approval first).

They will, of course, be happy to plant a few shrubs and add back the existing sidewalk.

I believe we have a chance to fight this installation, but only if you feel: a) the need to do so, b) the willingness to help out.

Please let me know.

Joe

March 4:

To all who can help with the effort to move the fuel cell tower site to a less prominent location, away from residential areas, we need two things for now:

1. Volunteers to distribute flyers and get help get signatures on a petition.
2. A volunteer to lay out and print up the flyer and petition. I can write the copy.

We may also need someone in charge of raising funds to cover printing costs, in which case we will need a treasurer.

I feel we have a better than 50-50 chance to stop this fuel cell tower from being installed at the gateway to our community, but it will take some effort.

April 7:

Update on opposition to the fuel cell tower:

1. Our city council reps have drafted a letter in opposition to 600 Iranistan being used as the site for the fuel cell tower.
2. The CT Siting Council will vote on May 7 whether to reopen Nupower's application process. If yes, they will vote on including Seaside Village as Intervenor. In other words, they will vote on whether to give us an opportunity to make our argument against this site.
3. A flyer is being prepared by Susan Fazekas. It will be available for distribution in the Village and the surrounding neighborhoods. We need someone to act as a treasurer to collect small donations toward printing costs. Volunteer?
4. A letter/opinion to the CT Post opposing the fuel cell tower siting has been sent. Hopefully it gets published soon. It is attached.

5. A full argument based on the site's conflict with CT Environmental Protect Act has been prepared. It will be sent to the CT Siting Council and published here at the appropriate time.

April 10:

As mentioned in my previous post, NuPower and Doosan have resubmitted their petition to the CT Siting Council. We have until April 26 to respond. Fortunately, our City Council reps Jorge and Denese are fully engaged and opposing the proposed power tower and would like to meet with us. We are working on others, including Steve Stafstrom, Antonio Felipe, Dennis Bradley, Christopher Rosario. Please reach out to them if you have connections.

Very interesting to note: While the initial petition (1406) relied heavily on the fuel cell tower being part of Thermal Loop, which was to provide heat to various local buildings. In theory this would have offset some of the harmful emissions from the plant. The Thermal Loop is NO LONGER part of the revised petition (1406A). This tells me it was mostly a fiction to begin with, only there to make the case that this power plant would have a net reduction in harmful emissions.

Some initial support letters were supporting the thermal loop, not necessarily the power plant, which we don't need. Perhaps Staffstrom, Felipe, Bradley and Rosario will reconsider their support now that the Thermal Loop is no longer part of the petition.

April 18:

Update on opposition to the fuel cell tower:

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5. A full argument based on the site's conflict with CT Environmental Protect Act has been prepared. It will be sent to the CT Siting Council and published here at the appropriate time.

April 21:

Thank you Susan Fazekas for preparing our flyer!

We have distribution on Little (Kai Starn), Flanders (Yolanda Ramos) Sims (Joanne Aidala and LaJeune Pollard) Burnham (Frank Basler) ... still need Albert Square, Alsace, Forest, other neighborhoods? etc. Please let me know. We have a lot of flyers!

April 24:

This week President Biden announced an ambitious plan to lead the world in reducing greenhouse gas emissions. He made a pledge to reduce greenhouse gas emissions by 52 percent before 2030. So how would building an unneeded power plant that contributes thousands of tons of greenhouse gases annually make any sense?

Thank you to everyone who has dropped off signed flyers yesterday.

April 29:

Thank you to everyone who has returned their petition/flyer ... with a special thanks to LaJeune for collecting a sizable batch of the 80 signatures submitted so far. We need more and will likely need them by May 7, so if you need more flyers or haven't dropped off your signed flyer yet, please do so. Let me know if you need more flyers...

May 7:

Dear Villagers,

Bad news, good news, and more bad news...

First, the fuel cell tower took a step closer to reality yesterday. The revised petition to the CT siting council reopens the plan for consideration.

The good news: we have been approved for intervenor status despite a lengthy letter in opposition from NuPower's lawyer.

Unfortunately the vote was not unanimous. I was able to listen in, and at least two of the council members are predisposed to building the power plant.

With intervenor status we have an opportunity to change their minds. More to come.

May 12: Very important: We have an opportunity to make public comment on the fuel cell tower. Please send yours via email to Siting.Council@ct.gov Please reference "petition 1406A" in the subject and include a cc to joeprovey@gmail.com so we can have a record of what the siting council receives. Our opposition centers on three main issues: gateway/proximity to schools, parks, housing; more pollution in an already environmentally distressed area; and safety in the event of an accident or cyber threat (not farfetched given the headlines of the past week).

May 12:

Here are two photos that show just how close we are to the proposed fuel cell tower. One is taken from the fuel cell site looking down Iranistan toward the Village. The other is from the corner of the Village looking to the sight, which would be 12 ft. past the I-95 overpass. Please write to the above address with your feelings.

May 18:

The clock is ticking. Emailed letters are due to the CT Siting Council by June 2. Below is some information which you may want to include in your letter of opposition, but please do not use verbatim. Also, please remember to include "petition 1406A" in your email and send it to Siting.Council@ct.gov.

Reasons We Oppose Fuel-Cell Tower at 600 Iranistan

Many South End residents in Bridgeport are shocked and dismayed by the fuel cell tower siting proposal by Doosan and Nupower, and by the city. I represent, per a vote of its board, Seaside Village, Inc. Seaside Village is a model co-operative housing corporation of more than 500 residents located approximately 500 feet from the proposed power plant. As a former board member of Bridgeport's South End NRZ and community organizer, I also represent a larger constituency ... many of whom have signed our petitions. Our NO to O&G campaign, which prevented a concrete debris crushing plant to be built in our vicinity, includes more than 400 members on our Facebook pages.

Our opposition to is based upon five ways a fuel cell tower would negatively impact our community: health, safety, environment, economic impact, and cultural resources.

1. Health

The multi-fuel cell tower, contrary to claims by the petitioner, is not a renewable energy source. It uses natural gas in order to produce the requisite hydrogen. Doing so produces emissions like any other fossil-fueled power plant. Doosan says in its petition that "when the hydrogen economy arrives," the Iranistan Ave. installation could switch to hydrogen gas ... which of course would raise new concerns. More benign ways to produce electricity are on the way, including battery storage coupled with truly renewable energy sources, such as wind and solar power.

Doosan/Nupower's original argument was that its plant would be part of a thermal loop. By using its waste heat to heat local buildings, less gas and oil would be burned locally and there would be a net reduction in greenhouse gas emissions. This is a dubious argument given that the thermal loop remains as far from breaking ground as it was seven years ago when it was first discussed. In fact, the revised petition 1406A barely mentions the thermal loop. Without the thermal loop, the fuel cell tower simply becomes yet another gas-fueled significant contributor to green house gas emissions.

We argue that without a plausible way forward with the thermal loop, there is no offset and no benefit to the community. Furthermore, we feel the thermal loop was never a viable idea, has few user commitments to it, and is very ambitious for a city that cannot even get its sewer system in order. Thermal loops have been successfully used in several European countries but only because of policies that

mandate their use with all new construction and that ban fossil-fueled boilers.

<https://cbey.yale.edu/.../renewable-thermal-heating...>

The petitioner also argues that statewide, the fuel cell tower would

The CO₂ greenhouse gas emissions from the proposed plant would equal about one million tons during the 20-year life of the facility, or about 45,000 tons per year. The plant will also emit a significant amount of methane CH₄ (10.5 ton/yr.) and nitrous oxide N₂O (.21 ton/yr) as well as Sulphur Hexafluoride SF₆, Hydrofluorocarbon HFC (very detrimental greenhouse gases), and perfluorinated compound PFC, classified as a “persistent organic pollutant,” recently found in mothers’ milk.

In addition to emitting greenhouse gases, which of course add to global warming, these gases are primary contributors to the formation of ground-level ozone. Unlike the atmospheric ozone layer that protects us from solar radiation, ground-level ozone can harm lung function and irritate the respiratory system (see American Geophysical Union. "Carbon Dioxide Tied To Air Pollution Mortality." Science Daily, 4 March 2008). Sometimes you can Bridgeport’s smog from route 8, beginning in Shelton.

According to the EPA’s CBSA Factbook 2019, the Bridgeport region has the highest ground-level ozone average east of the Mississippi River (.084 ppm), well above the maximum acceptable level (0.07 ppm). Some of this is due to ozone blowing in from elsewhere, but much of it is due to the proliferation of power plants in our area. Bridgeport’s South and West End already host two gas-fired power plants, a former coal plant that is just being decommissioned, a trash to energy plant, and several small scale, gas-fueled fuel cells. Additional emissions are released by nearby concrete and asphalt plants, and the consequent heavy diesel traffic on our streets.

It is not surprising that the South End of Bridgeport, and Bridgeport in general, see high rates of asthma and allergies in its children – three times as much as its more affluent power-plant free neighbors.

(<https://portal.ct.gov/.../pdf/Fullreportwithcoverpdf.pdf>,

<https://www.aafa.org/asthma-capitals-top-100-cities-ranking/>

Increasing emissions in this already distressed neighborhood will worsen the situation. A growing body of environmental justice literature examines how unequal exposures to environmental pollutants and social determinants manifest as health disparities (Brulle & Pellow, 2006; Downey, Dubois, Hawkins, & Walker, 2008).

2. Safety

In its petition, Doosan touts its safety record and built-in safety overrides. These are largely untested due to the novelty of ganged fuel cell installations. (The developers must point to South Korea for projects similar to this one, but even those are significantly different from what is proposed here given that they don’t use natural gas.) Doosan’s primary defense against disaster includes automatic shut-off valves and tanks of nitrogen gas that would theoretically deploy in the event of a fire. Unfortunately, valves are notoriously subject to failure.

On site equipment is subject to theft, vandalism, and weather events such as lightning and tornadoes. The risk is too great for so unnecessary a project with so little benefit to the host community. There is very little security offered by the proposed fencing, video monitoring, and street side nature of the project. In addition, the proposed site has a minimal setback (12 feet) from a 60-ft. tall raised

portion of a major interstate. It is also very close to several on-off ramps, high-voltage electrical cables, and a major rail line that serves both Metro North and Amtrak. We believe that an accident, or vandalism-generated damage, would have catastrophic repercussions for not only Bridgeport, but for transportation throughout the Northeast corridor.

The bottom line is this installation would be the first of its kind in the United States, untried and untested, and situated adjacent to critical transportation infrastructure. Such a siting, in the minds of many nearby residents would be reckless.

3. Environment

Putting a power plant in the middle of a residential area (less than 100 feet from homes to north; 480 feet from the south) will have negative effects on area residents beyond health and safety. No matter how it's presented, the structure represents a monstrous eyesore that will make noise, and emit light and various greenhouse gases. For a visual check of what the facility would look like to the thousands who pass the site every day, see the petitioners supplied photos of fuel cell towers in South Korea. Then note that these towers were not installed near residential areas or next to critical transportation infrastructure.

Doosan/Nupower claim the new plant will be compliant with current noise regulations – but if it's not, sound dampening will be added in the form of blankets once the plant has been built. Sound, however, is very difficult to control via noise with absorption alone. Carefully sealing off the source of noise is required. That, would be difficult or impossible. The loud cooling fans must, of course, be left open and exposed. So what if the back up plan doesn't work? Has it been tried on this scale next to residential areas? The argument that the site is already subject to noise from traffic is not a good one. Highway and rail traffic is intermittent, with quiet periods. The fuel cells will make noise all the time. It is also important to consider that the primary noise source (cooling fans) will be within a car's length from the I-95 traffic.

CO2 emissions from yet another fossil fuel powered plant, will further stress the landscape, including our trees and gardens. While we can no longer claim vernal pools, Seaside Village maintains several hundred trees on its property, in addition to large community vegetable and butterfly gardens.

<https://today.uconn.edu/.../changing-air-quality-land.../>

<https://extension.tennessee.edu/publi.../Documents/SP657.pdf>

It is interesting to note that CO2 is heavier than air. Given the right conditions, this causes a blanketing effect that over stimulates growth of vegetation as well as mold. It also stresses our native trees, which are our first line of defense with both CO2 absorption and high ground water. Anything we put in the air, eventually comes down, says Kristina Wagstrom, Assistant professor of chemical and biomolecular engineering at University of Connecticut.

4. Economic Impact

The South End of Bridgeport, especially the area west of Park Ave., is virtually devoid of shops and eateries. We have a liquor store, a gas station and a deli, all of which have seen better days. With the advent of the Windward housing development, it is hoped this will change. Placing a power plant at the gateway to this area is likely to have a discouraging effect on any further food store or

restaurant openings in the area.

Homeownership will also become less attractive. Who would want their kids to walk past 21 fuel cells on their way to school everyday? (Note that the Korean fuel cell towers, referenced by Doosan in its petition, were installed at an industrial complex, not in a residential area adjacent to critical transportation and power infrastructure.)

Decommissioning of this plant, in 20 years, calls for removal of spent modules and associated equipment, but not of the footings or steel structure itself. So we have concerns that in twenty years, the property becomes just another example of blight. In the past, parcels such as the proposed site have been earmarked by Resilient Bridgeport for permeable open space and catch basins that could be used to mitigate the South End's periodic flooding problems.

<https://resilientbridgeport.com/bridgeport/>

5. Impact on Cultural Resources

In its petition, Nupower/Doosan claim no impact on cultural resources. This conveniently ignores the facts. The proposed site is at one of two primary gateways to Seaside Park, a 375 acre, 2.5 mile long stretch of beach, recreational areas, ball fields, an amphitheater, fishing pier, boat launch, historic monuments, and picnic areas. Designed by Frederick Law Olmstead in the 1860's, it is on the National Historic Register and remains Bridgeport's primary outdoor recreation area.

[https://en.wikipedia.org/wiki/Seaside_Park_\(Connecticut\)](https://en.wikipedia.org/wiki/Seaside_Park_(Connecticut)). We believe the park will become a less attractive place to visit if hemmed in by another power plant. There has already be serious encroachment with a new gas power plant at its eastern end and a trash-burning power plant, and concrete and asphalt plants at its western end. The 600 Iranistan site is also one of two primary gateways to Bridgeport University, a financially troubled university that will hopefully be transformed thanks to its partnership with Goodwin University. UB was founded in 1927. In 2018 it served over 5000 students. It also has served the community as a venue for concerts, lectures, art exhibitions, and sporting events. To place a power plant on the doorstep of this institution, will further harm its chances for a successful future.

Finally, the proposed site is at the gateway to Seaside Village, co-operative housing built in 1918 and on the historic register. Described as an architectural gem and studied by architectural schools, including Yale University, Seaside Village offers a model for what housing developments should look like. It's 257 units house over 500 residents of all income levels, ages and ethnicities.

https://en.wikipedia.org/.../Seaside_Village_Historic...

Building another power plant, especially of this scale, is not in keeping with small town houses in Seaside Village and the cottages of the South End. Although referred to as a 3.5 story structure, that's misleading. At a height that exceeds 70 feet, it is equivalent to a 6-story residential building ... of which there are none in our community.

Of further concern, is water run off. The South End is just a few feet above high tide and floods frequently. We have been participating with Resilient Bridgeport to find ways to mitigate flooding. The nearby Windward housing development has promised a large catch basin and pump to keep water runoff from the Village. We had hoped that this proposed site would eventually host a catch basin as well.

There are numerous possible sites for fuel cells, less prominent to residents and visitors, that would be suitable to a fuel cell installation. Although we are not advocating for the fuel cell tower to be built anywhere in Bridgeport, the proposed 600 Iranistan site is the worst of all options. Connecticut's Environmental Protection Act states that any development, such as the one proposed by petition 1406A, cannot adversely affect cultural (including historic) resources. Seaside Village and surrounding communities, believe the installation of a large fuel cell tower will undermine its historic and cultural value, and affect the health and wellbeing of its residents.

May 20:

Letters are beginning to arrive at the CT Siting Council. Please keep in mind that the 6 commissioners who decide on the power plant will read your letter. It can make a bigger difference than all of the more technical arguments. Here is a letter they received this morning from a supporter of ours who works at UB.

Good morning,

as a full-time professor at UB I have been privy to the attempt to beautify the entrances to the University to help attract potential students. This power plant site proposed to be built on Iranistan Ave. would do the exact opposite. I also do not agree, as a Doctor, having these fuel cells so closely located to a high density population, if there were to be an accident it could be devastating and cause loss of life to many. The gases emitted and noise pollution would contribute to health costs over time that are incalculable. My late husband was a prominent artist in the community, he and his friends were involved in successful art projects to increase the desirability of living in Bridgeport, this power-plant would take away from all of their efforts.

Please take all of this into consideration and if the plant is to be built have it be built away from a populated community.

thank you for your time and consideration,

Sincerely,

Dr. Cindy Anderson

May 21:

So far 12 forceful letters have been sent to the CT Siting Council, from Villagers and others, opposing the construction of a multi-fuel cell tower at 600 Iranistan Avenue. While about 1/5 of the South Korean facility below, the photo gives you a good idea of what it will look like. Our goal is thirty letters by June 2, so please take a few moments this evening to make your voice heard.

May 24:

Hi All, More letters have reached the CSC. They paint a much better picture than I can in making our arguments against the siting of this fuel cell tower. Here is one from David and Paige Brown. I think you will find it very moving.

"My name is David H Brown, a current resident of Seaside Village. My wife & I are proud owners of a unit that has a view of Seaside Park, one that is directly across the street from my childhood Seaside Village unit where I spent the first 25 years of my life. It is unsaid that the South End of Bridgeport is my "stomping grounds".

Throughout my younger years I have witnessed many issues here. Burning landfills, oily creek waters covered in dead marine life, the constant smell of a fat rendering plant, a coal burning energy plant that sometimes "hazed" the sky, yearly flooding, the noise & the airborne dirt from I-95 & the debris from incinerators from 2 housing projects just blocks from my place. Fast forward to today & many of those issues were resolved over time. Some are still in the works but, with that being said, there are now different issues. This new project to install a fuel cell tower at Railroad & Iranistan cancels all the progress that has been made for over 20 years. It is not the project itself. It is the unwillingness to locate it somewhere that makes sense to the community. All the enjoyment of returning to give Bridgeport a second chance & the hope for the South End to finally be given it's due, will be erased. We will see that installation as a reminder that we don't matter. The site should be located elsewhere. With so much empty space around this area available, tucked away in a corner, unnoticeable, unintrusive should be paramount. For the residents. For the city. We have fought against concrete crushing plants & solar farms for the same reasons. They are environmental, emotional & psychological. This haven for all the city's & even the region's "working parts" is unfair. How we have gotten to this point, by once again defacing the South End at one of it's critical points, the first impression, is unthinkable. As you approach what is supposed to be, the gem of the city, you are greeted with an unsightly monstrosity. That first impression could be the reason (or excuse) that the South End will never reach its full potential. It will always be seen as "what could have been". It is simply a mockery to us all. David & Paige Brown both born & bred Bridgeporters.

May 26:

Hi All, We have about 13 letters into the Siting Council, plus hundreds of signed flyer/petitions. If you are planning to send the Council members your opinion about the fuel cell tower, please do so as soon as possible. The deadline is less than a week away.

May 27

Correction: While at the Town Clerk's this morning getting maps to satisfy one of the CT Siting Council's interrogatory, I found that the distance from the proposed site to the Village is closer to 500 feet than 220 feet. In the future, when writing letters or giving opinions at the upcoming Planning and Zoning meeting, please use 500 feet. Sorry...my mistake.

June 1

LAST CHANCE to email the siting council at siting.council@ct.gov. Letters need to reference Petition 1406A and to be in by June 5. If you are looking for inspiration,

here are seven things the Connecticut Environmental Protect Act says the state must take into account with any project:

(1) Fulfill the responsibility of each generation as trustee of the environment for succeeding generations; (2) assure for all residents of the state safe, healthful, productive, and esthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our Connecticut heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice; (5) achieve an ecological balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources; and (7) practice conservation in the use of energy, maximize the use of energy efficient systems and minimize the environmental impact of energy production and use.

May 19 Memo to Board of Directors sent via email:

Dear All,

Once again, thank you to the Seaside Village board for supporting my successful request for intervenor status with regard to the proposed fuel cell tower at 600 Iranistan Avenue.

Tomorrow is the deadline for submission of our interrogatories (attached). Please take a look at them and provide comments. Feel free to share with other Seaside Village South End residents after tomorrow.

Sincerely,

Joe Provey