



SUBMITTED ELECTRONICALLY

December 15, 2021

Mr. Marc Simpson
Air Quality Permit Chief
Massachusetts Department of Environmental Protection
436 Dwight Street
Springfield, MA 01103
marc.simpson@mass.gov

Re: Clean Energy Group Comments regarding Pittsfield Generating Company LP's Operating Permit Renewal

Dear Mr. Simpson:

Clean Energy Group (CEG), a national nonprofit organization that has been advocating for clean energy solutions since 1998, is pleased to provide these comments regarding the Pittsfield Generating Company's Operating Permit Renewal for its facility at Merrill Road. CEG works to ensure that the benefits of the clean energy transition are equitably distributed and accessible to people of color, low-income communities, and other historically underserved communities. CEG helps to develop and disseminate innovative clean energy programs and deployment strategies that could be replicated across the country. Through these efforts, CEG is involved in multiple community-led initiatives to replace polluting fossil fuel infrastructure, such as peaker power plants, with clean renewable generation and energy storage alternatives.

CEG's Phase Out Peakers program has modelled deploying energy storage plus renewable energy for peaker plant replacements in several locations nationally, including Peabody, Massachusetts and in New York City, and it has demonstrated repeatedly that fossil fuel peakers can be cost-effectively retired and replaced by battery storage technologies.

According to Clean Energy Group's [technical findings](#) prepared in July 2021 on the proposed Project 2015A, a 60 MW natural gas and oil peaking power plant in Peabody, MA, there is a very strong probability that replacing a gas and oil peaker plant with battery storage would not only provide cleaner peaking services, but it would be cost effective and beneficial to the local community as well.

Based on the analysis of the Peabody peaker proposal, Clean Energy Group strongly recommends that the Pittsfield Generating Company operating permit be denied, and that this site be modelled by an independent expert for replacement by battery storage.

In the case of the Pittsfield plant located on Merrill Road in Pittsfield, the air emissions from fossil fuel combustion are clearly harming the surrounding community. It is acknowledged that

Allendale Elementary School is close to the Pittsfield plant, but just how close may not be clear. As the photos below show, the kindergarten through fifth grade school sits a mere 996 feet away from the emissions stacks (see Photo 1). The school's playgrounds and ballfields are even closer to the plant. When parents drop their children off each morning, they see the stacks that emit carbon dioxide and nitrogen oxides rising from behind the school (see Photo 2).

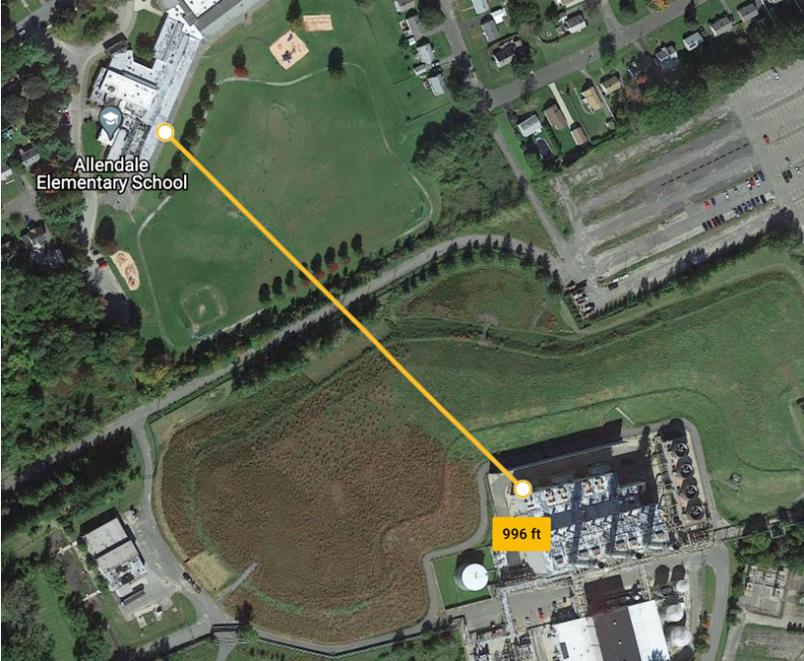


Photo 1 – Proximity of Pittsfield power plant to elementary school. (GoogleEarth)



Photo 2 – Emission stacks from Pittsfield power plant visible from the elementary school entrance. (GoogleMaps)

It is important to note that this peaker plant isn't just firing gas combustion turbines. It is also using four #2 fuel oil reciprocating internal combustion engines (RICEs) and one gas RICE, which are used for black start. These engines are much dirtier than the gas combustion turbines at the

plant. According to the permit on file, these black start units do not have any pollution control devices installed on them. And even the gas turbines themselves spew nitrogen oxide (NOx) emissions at a much higher rate than ordinary baseload plants because the pollution control system (steam injection and selective catalytic reduction) does not kick in during ramp-up until the plant achieves and maintains a high enough temperature; and sometimes that point is not met before the plant starts ramping down.

Because of that and the brief period this plant is needed each time it is used, the plant emits an inordinate amount of pollutants into the air. Given that a clean alternative is available, allowing this polluting plant to continue to operate and receive millions of dollars from ratepayers is genuinely harmful to the community—more so because battery storage is clearly capable of providing power for such narrow peaks, and would be a cleaner alternative.

According to [data](#) pulled from EIA and EPA sources (see Table 1), the capacity factor for this plant (how much of its nameplate capacity is actually used) has steadily declined, from 17 percent in 2015 to 5 percent in 2019 and now 2 percent in 2020. Two percent capacity factor means the plant operated for a grand total of 175 hours in 2020 out of 8,760 hours in the year. During those 175 hours, the plant belched 19,000 tons of CO₂ and 3,000 tons of NOx, potentially compromising the health of school children playing outside on summer afternoons. Clearly, examining clean energy alternatives would be in the public interest.

As more renewables have come online and narrowed the peaks, two-hour and four-hour lithium-ion batteries can easily fill the marginal role that these fossil fuel peakers play and do so *without spewing pollutants* into the surrounding community. In addition, batteries can provide other grid benefits, including frequency regulation, load shifting, and critical backup power for community resilience. Fossil peaker plants have only one function on the grid, and they fulfill that function with a high price tag and at great cost to the adjacent community.

Battery storage is the clean, multi-functional, multi-value alternative. There is no longer any reason to extend the life of a marginal fossil fuel peaker in this situation, given the requirements of the Next Generation Climate Roadmap Act, and *especially* given the plant’s location.

Table 1 - Pittsfield Generating LP - Capacity Factor and Emissions Data

Historical Plant Characteristics:

	2015	2016	2017	2018	2019	2020
Capacity (MW)	176	176	176	176	176	176
# of Generators	4	4	4	4	4	4
Generation (GWh)	259	247	163	118	80	35
Capacity Factor	17%	16%	11%	8%	5%	2%

Historical Plant Emissions :

	2015	2016	2017	2018	2019	2020
CO2 (thousand tons)	135	128	87	63	42	19
NOx (tons)	25	23	19	10	7	3
SO2 (tons)	NVR	NVR	NVR	NVR	NVR	NVR

Notes:

NVR = No Value Reported

PNO = Plant Not Operational

Source: Synapse. See

<https://synapse.maps.arcgis.com/apps/dashboards/201fc98c0d74482d8b3acb0c4cc47f16>

The analysis that CEG had prepared for [Peabody](#) found that batteries were not just a clean alternative but also an economic one. The economic case for batteries in Pittsfield is even better thanks to the SMART Solar Tariff Generation program incentives available in Eversource territory as well as the potential to produce Massachusetts Clean Peak Energy Standard credits, which would apply directly to this type of project and would not require co-location with renewables.

In summary:

- The Pittsfield peaker is a significant source of air pollution that is sited next to an elementary school.
- Battery storage in this location next to the school is technically feasible and a cleaner option.
- Battery storage is also a likely viable economic alternative in this location.

In light of these facts, we ask that Massachusetts Department of Environmental Protection deny the operating permit renewal application by the Pittsfield Generating Company LP, and that battery storage be modelled as the alternative by an independent third party.

Sincerely,

Shelley Robbins

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