VIA ELECTRONIC FILING

June 30, 2026

ATTN: EJ COMMENTS
Bayonne Energy Center
401 Hook Road, Bayonne, NJ 07002
info@tigergenco.com

Re: **Bayonne Energy Center Title V Operating Permit Renewal BOP230002**
Environmental Justice Project ID No. 35276296

To Bayonne Energy Center and the New Jersey Department of Environmental Protection,

The PEAK coalition, comprised of member organizations UPROSE, THE POINT CDC, New York City Environmental Justice Alliance (NYC-EJA), New York Lawyers for the Public Interest (NYLPI), and Clean Energy Group (CEG), respectfully submits the following comment urging the New Jersey Department of Environmental Protection (NJDEP) to impose modifications on the Title V Operating Permit Renewal for Bayonne Energy Center (BEC).

The PEAK Coalition's mission is to end the long-standing burden of peaker power plants on environmental justice communities by replacing them with clean alternatives, including but not limited to renewable energy, energy storage, and demand management solutions. Guided by community-defined priorities, our campaign takes a comprehensive approach to developing and advancing solutions by organizing environmental justice communities and providing policy, legal, and technical analysis. Since our Coalition formed in 2019, we have published many reports that led to legislative and administrative actions on ratepayer protection, community benefits, technical feasibility, and goal-setting for a just transition for New York's power grid.

The petition must be modified under NJ Rev Stat § 13:1D-160(d) (2025), which gives NJDEP the authority to apply conditions to a permit for the renewal of an existing facility's major source permit for facilities operating in an Overburdened Community (OBC). BEC currently interconnects in Sunset Park, Brooklyn, and supplies power only to New York City. We believe that while short-term reliability for New York City and the region is critical, BEC is not a long-term solution to address affordability and reliability for New York and New Jersey's electric grid.

I. Introduction

The PEAK Coalition's mission is to end the long-standing burden of peaker power plants on environmental justice communities by replacing them with clean alternatives, including but not limited to renewable energy, energy storage, and demand management solutions. Guided by community-defined priorities, our campaign takes a comprehensive approach to developing and advancing solutions by organizing environmental justice communities and providing policy, legal, and technical analysis. Since our Coalition formed in 2019, we have published many reports on ratepayer protection, community needs, technical feasibility, and legal requirements for transitioning peaker power plants to battery storage and renewable energy, including transmission and generation facilities that deliver power to New York City.

The Bayonne Energy Center is a natural gas-fired power plant that operates as a "peaker", providing power to New York during "peak" energy demand times. Peak hours are most likely to occur on very hot days when many people are using power to run their air conditioning and other appliances. This means the plant turns off and on frequently, and the ramping up and down to meet these peaks can cause higher pollutant emissions rates. BEC has a total of 10 simple-cycle gas-fired turbines, which are less efficient than combined-cycle turbines. The use of older combustion turbine technology means the facility burns more gas to produce the same amount of energy, as a vast majority of the energy is lost as high-temperature exhaust that releases more pollution per unit of energy generated.

The PEAK Coalition supports New Jersey Environmental Justice Alliance and allied organizations' efforts to call for conditions on the permitting of BEC, leading to a long-term strategy and viability for the complete phase-out of fossil fuel generation at BEC. Our support is also consistent with conversations we've heard from residents from Bayonne and Staten Island during the public hearing held in Bayonne on May 26, 2026.

During the public hearing, community members broadly expressed opposition over the burden placed on Bayonne with very limited local benefits by the Bayonne Energy Center, including higher rates of cancer risk, asthma, heart attack, stroke, and cancer deaths compared with the rest of Hudson County and New Jersey.[1] Residents further express concerns that incoming proposals for data centers would further add to the cumulative burden on the community. Notably, the public meeting was poorly organized by Bayonne Energy Center. Remote and in-person participants from the PEAK Coalition noted how it was impossible to hear each other in the room with no sound amplification equipment, and we agree with the doubts expressed by residents in public that it was impossible for NJDEP staff in attendance virtually to properly record all public comments expressed at the hearing. This troubling public hearing outcome suggests that Bayonne Energy Center may not intend to follow New Jersey's Overburdened Community obligations in good faith.

As noted by the PEAK Coalition during the public hearing, while concerns regarding energy for data centers being sourced by Bayonne Energy Center lack current evidence and feasibility, New York's Climate Leadership and Community Protection Act requires that the State's energy grid must be zero emissions by 2040. Beyond then, BEC, even as a hybridized facility, will not be allowed to export energy into New York through the Sunset Park substation. For the purpose of addressing Bayonne resident concerns, the PEAK Coalition believes that there is a necessity to discuss the long-term future of BEC between the company, New Jersey government representatives, and local residents based on concerns regarding the irresponsible growth of large load facilities.

At the public hearing, BEC noted that it planned to install a 50 MW battery by 2027. Although PEAK Coalition supports the effort to hybridize at the facility for short-term emissions mitigation purposes, it is unfortunate that BEC did not include this as part of its scope for emissions reduction compliance. It is further disappointing that the size of the battery is insufficient to achieve a meaningful reduction in emissions. At 50 MW, the proposed BESS unit is less than one-tenth of the facility's total capacity.

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[1] New Jersey Department of Environmental Protection and New Jersey Department of Health. 2022 Health and Community Planning Report: Hudson County, Bayonne City. https://www.nj.gov/health/hcpnj/documents/county-reports/HCPNJ_fullreports/HUDSON_BAYONNE%20CITY.pdf

BEC must install more battery storage units in order to reduce its reliance on polluting gas-fired turbines. As detailed in our comments below, both BEC and NJDEP have the obligation to further reduce emissions from this facility in an OBC, and there is sufficient evidence that expanded hybridization is technically feasible for the facility and financially beneficial to ratepayers.

II. New Jersey Department of Environmental Protection's Obligation to Apply Conditions to BEC's Title V Permit

NJDEP not only has the authority, but the obligation, to require BEC to install battery storage as a condition of its Title V permit renewal under New Jersey's Environmental Justice Law (EJ Law). Enacted in 2020 to address the longstanding inequity of siting harmful polluting facilities in low-income communities and communities of color, the EJ Law expressly authorizes NJDEP to impose additional permit conditions to protect public health where the permit would "cause or contribute to adverse cumulative environmental or public health stressors affecting in the overburdened community." N.J.S.A. 13:1D-160(4)(d). As part of this determination, the law requires DEP to evaluate the existing environmental and public health stressors in the overburdened community and empowers NJDEP to require measures that reduce pollution and mitigate cumulative impacts. Given that BEC is located in a statutorily defined overburdened community, DEP has clear authority to impose conditions to meaningfully reduce BEC's pollution burden on surrounding communities, and it should exercise that authority here.

The need for more robust permit conditions is undeniable. The community surrounding BEC already experiences 19 of the 26 adverse environmental and public health stressors NJDEP evaluates in its assessment pursuant to the EJ Law.[2] BEC contributes directly to at least seven of these stressors, including high ozone levels, high heavy-duty truck traffic, elevated non-cancer health risks from air toxics, high numbers of facilities with air pollution permits, and elevated cancer risk from both diesel particulate matter and from air toxics.[3] Against this backdrop of these existing burdens, NJDEP allowing continued operations without stronger mitigation measures would perpetuate the very cumulative burdens that the EJ Law was created to address.

Given BEC's direct contributions to the cumulative burdens on the Bayonne community, NJDEP should exercise its authority to require BEC to install and use battery storage. Battery storage would reduce BEC's reliance on polluting gas-fired turbines and would meaningfully lower emissions that drive the environmental and public health burdens on the surrounding community.

Independent of its obligations under the EJ Law, NJDEP should ensure that BEC is positioned to comply with the state's forthcoming CO2 emission standards. Beginning in June 2035, applicable generating units will be subject to a 1,000 lb/MWH emissions limit. NJAC 7:27F-2.5(d)(3). All ten of BEC's turbines currently exceed this threshold. Without substantial and meaningful technological changes, BEC will be unable to meet these legally mandated emission limits. Therefore, requiring BEC to invest in battery storage and other emission-reduction measures now is not only prudent but absolutely necessary to ensure BEC's future compliance.

In sum, NJDEP has clear statutory authority under the EJ Law and an independent obligation to impose conditions to reduce BEC's pollution burden on surrounding EJ communities and ensure

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[2] Environmental Justice Impact Statement, Title V Renewal (BOP230002, PI#12863), Bayonne Energy Center LLC (March 19, 2026), https://dep.nj.gov/wp-content/uploads/ej/bayonne-energy-center-ejis.pdf.
[3] *Id*.

compliance with upcoming emissions limit deadlines. Taken together, these mandates compel NJDEP to impose battery storage requirements to safeguard the Bayonne community from additional environmental and public health harms.

III. Technical Feasibility of Hybridization in Bayonne

Based on our analysis of BEC's emissions and operating data, obtained from the EPA's Clean Air Markets Program Database, we believe this site is a good candidate for hybridization with battery storage and encourage the New Jersey Department of Environmental Protection (DEP) to impose a Special Condition requiring that BEC hybridize a minimum of one combustion unit with a recommended 65 MW/780 MWh battery energy storage system (BESS) to reduce emissions at the site and fulfill its obligation under New Jersey's Environmental Justice Rules (N.J.A.C. 7: 1C).

A. Technical Feasibility

Based on our analysis of the 10 combustion turbines at BEC, the gross load output of each turbine does not typically exceed 65 MW per hour and is often significantly less. On average over the last five years, the plant was called upon for events of four hours or less 31 percent of the time, events lasting between four and eight hours 29 percent of the time, events between eight and 10 hours 10 percent of the time, events between 10 and 12 hours nine percent of the time, and events 12 hours or more 21 percent of the time (see Figure 1).

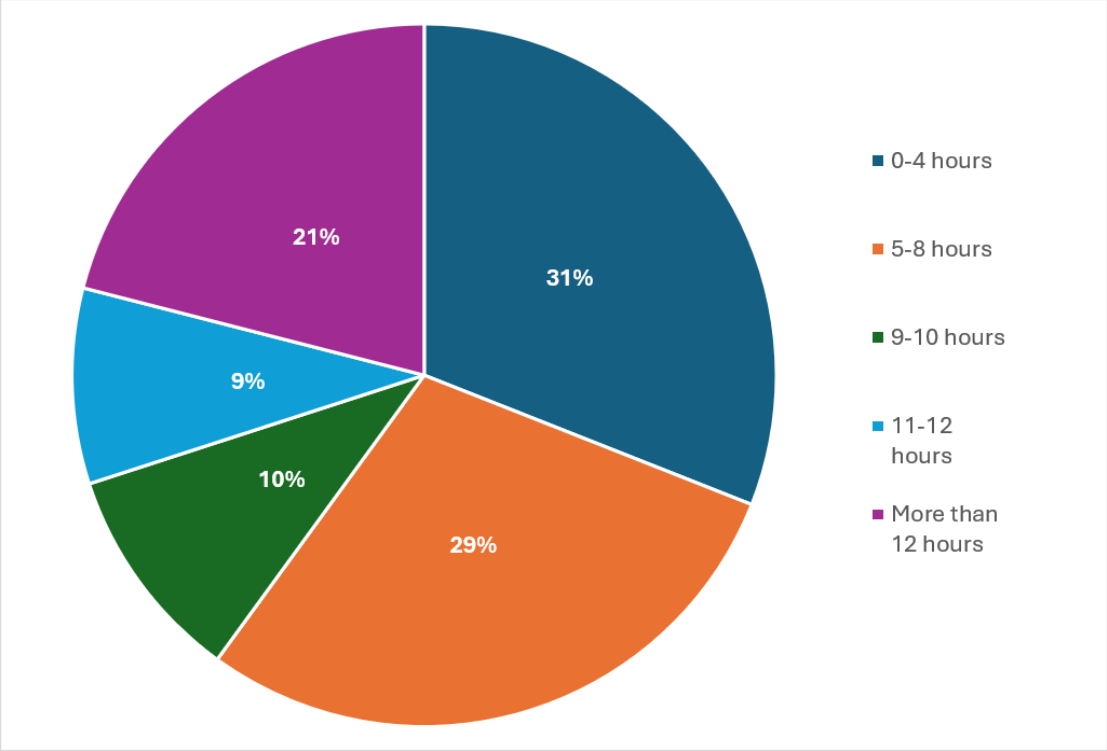

Figure 1: Percentage of Average Operating Events at Plant by Duration, 2020-2025

A 12-hour battery would address 79 percent of the operating events in which the plant is called upon. Hybridization is possible with any of the combustion units at BEC, as is the hybridization of

multiple units. Combustion unit 10, for example, operates with some of the highest frequency of any of the combustion units at the plant, operating on average for events lasting four hours or less 26 percent of the time, events between four and eight hours 38 percent of the time, events between eight and 10 hours nine percent of the time, events between 10 and 12 hours 9 percent of the time, and events lasting over 12 hours 19 percent of time. A 12-hour battery would replace 81 percent of Unit 10's operating events, requiring the combustion turbine to only come on for infrequent longer duration events. See Table 1 for a breakdown of the operating event frequency for each of the 10 units at BEC.

	</= 4 hours		5-8 hours		9-10 hours		11-12 hours		>12 hours	
Unit	Avg. # of Events	% of Total Events	Avg. # of Events	% of Total Events	Avg. # of Events	% of Total Events	Avg. # of Events	% of Total Events	Avg. # of Events	% of Total Events
GT1	75	32%	66	28%	25	11%	23	10%	48	20%
GT2	67	35%	55	29%	19	10%	17	9%	33	17%
GT3	68	34%	57	29%	20	10%	16	8%	37	19%
GT4	65	31%	50	24%	24	12%	21	10%	50	24%
GT5	65	32%	57	28%	21	10%	20	10%	39	19%
GT6	56	34%	45	28%	16	10%	16	10%	30	18%
GT7	69	33%	56	26%	23	11%	20	9%	47	22%
GT8	76	33%	59	26%	25	11%	19	8%	52	22%
GT9	74	31%	65	27%	24	10%	23	10%	53	22%
GT10	77	26%	114	38%	26	9%	23	8%	56	19%

Table 1: Average Number of Operating Events per Turbine per Duration (2020-2025)

While not included in BEC's EJIS, representatives from TigerGenCo., the owner/operator of BEC, did state at the EJIS public hearing that battery storage had not previously been considered for the site due to space limitations.[4] However, the plant sits on an approximately 363.6-acre parcel of land, abutted by the Kill Van Kull. Siting a 12-hour battery of this size on the parcel, even without dismantling the combustion turbine, would be feasible. Furthermore, Tiger Gen Co is developing a 50 MW/200 MWh BESS on the abutting parcel of BEC, known as BEC III.[5] This BESS could be expanded to a longer duration and higher output 65 MW/780 MWh BESS to effectively replace combustion capacity at the original BEC site.

B. Emissions Impacts

Hybridizing just one of the combustion turbine units at BEC would have significant emissions reductions compared to only utilizing existing emissions control measures. Unit 10 has some of the highest local air pollutant emissions of any of the combustion turbines at the facility, in part due to its frequent operations. Hybridizing Unit 10 with a 65 MW/780 MWh BESS would reduce total plant sulfur dioxide (SO2) and carbon dioxide (CO2) emissions by nearly four percent and total plant nitrogen oxide (NOx) emissions by nearly five percent. These emissions reductions would be intensified if additional combustion turbine units were hybridized.

Even if it is not feasible to develop a 12-hour BESS, hybridizing one or more of the combustion turbine units with a 10- or even eight-hour battery would still provide sizeable emissions reductions plant-wide. Hybridizing Unit 10 with a 65 MW/650 MWh BESS would reduce average plant-wide SO2 emissions by almost 3 percent, CO2 emissions by 2.65 percent, and NOx emissions by nearly 4 percent.

[4] Bayonne Energy Center. *Environmental Justice Impact Statement Public Hearing.*

[5] TigerGenCo. "TigerGenCo Secures $146 Million Senior Debt Financing for Utility-Scale Battery Energy Storage Project in NYISO." April 20, 2026. https://www.tigergenco.com/bec-iii-financing.

	% Sulfur dioxide (SO2) Emissions Reduced	% Carbon dioxide (CO2) Emissions Reduced	% Nitrogen oxide (NOx) Emissions Reduced
4-hour BESS	0.06%	0.48%	1.05%
8-hour BESS	1.86%	1.85%	2.94%
10-hour BESS	2.73%	2.65%	3.87%
12-hour BESS	3.87%	3.59%	4.89%

Table 2. Average Plant-wide Emissions Reductions Per Duration of BESS Used for Hybridization of Unit 10

C. Cost-Effectiveness

Based on NREL's most recent Advanced Technology Baseline data, an eight-hour utility-scale battery storage installation would cost approximately $2,891/kW, while a 10-hour BESS would cost approximately $3,507/kW.[6] While data for 12-hour battery costs is less widely available, a reasonable cost estimate for such a system would be approximately $4,031/kW. These costs are not unreasonable, considering the substantive reduction in plant emissions that installing a larger battery system would generate.

D. Special Conditions

While hybridization with battery storage has the potential to cost-effectively reduce emissions at the plant, several additional requirements would need to be in place. The hybridized combustion turbine would need to be configured so that the battery system is called upon first, and the combustion unit is only turned on for events longer than the battery system's available duration. This configuration would also take advantage of the quick response grid services batteries, which have essentially zero ramp time and are already synced to the grid, can provide that a gas turbine cannot. The battery can also charge during periods of high renewable energy production, helping to minimize curtailment of those resources and reducing any potential embodied emissions from grid charging of the battery.

E. Hydrogen Combustion

While not explicitly mentioned in the EJIS, TigerGenCo. has previously stated its intent to combust green hydrogen at BEC as an emissions reduction measure.[7] Hydrogen combustion is not an effective emissions reduction measure and has the potential to greatly increase emissions at the site. The turbines at BEC are Siemens AGT-65 wet low-emission combustion turbine generators, which are designed primarily for natural gas combustion.[8] Most natural gas combustion turbines can only safely combust a mix of 30 percent hydrogen to natural gas. Because hydrogen is less energy-dense than natural gas, combusting a blend of hydrogen and natural gas will not lead to a one-to-one reduction in carbon emissions. This, combined with hydrogen's role as an indirect greenhouse gas, which extends the lifetime of methane in the atmosphere, means that combusting a blend of even 50 percent hydrogen

[6] National Renewable Energy Laboratory. "2024 Annual Technology Baseline." Annual Technology Baseline, July 23, 2024. https://atb.nrel.gov/electricit48y/2024/data.

[7] NovoHydrogen. "NovoHydrogen and TigerGenCo to Collaborate on Green Hydrogen Supply at New Jersey Power Plant." November 16, 2022. https://www.prnewswire.com/news-releases/novohydrogen-and-tigergenco-to-collaborate-on-green-hydrogen-supply-at-new-jersey-power-plant-301679930.html.

[8] Siemens. "SGT-A65 Gas Turbine." 2018. https://www.amasenergy.com/sites/default/files/products/amas_import/mechanicaldrivegasturbine_3523_1594747735_1594747735.pdf.

would only lead to a 10 percent reduction in lifecycle greenhouse gas emissions.[9] Additionally, when combusted, hydrogen produces six times as much of the harmful air pollutant NOx as natural gas.[10] Even in hydrogen-capable combustion turbines in which air pollution control technologies can be effectively applied, NOx emissions will remain the same as those of a newer natural gas plant.[11] Hydrogen combustion should categorically not be considered as an emissions reduction measure at BEC.

Hybridization of at least one of the combustion units at BEC with a 12-hour BESS has the potential for significant emissions reductions beyond the plant's existing pollution control measures. If a 12-hour system is not feasible due to site or cost constraints, a 10- or even eight-hour system will still make a sizeable impact on emissions at the site, particularly if additional combustion turbine units are hybridized over time. The PEAK Coalition urges the DEP to impose hybridization as a Special Condition for BEC to fulfill its obligations under the New Jersey EJ Rules.

IV. New York City and State Considerations

New York City's environmental justice communities should not be forced to pay high capacity payments for energy reliability that puts burdens across both states. PEAK Coalition has conducted significant research and work over the past 7 years to expose the cumulative public health, affordability, and reliability challenges placed on New York's Disadvantaged Communities as a consequence of failures in long-term planning to phase out peaker power plants. From the review of capacity factors we have provided in this comment, it is clear that the majority of BEC generators are peaking or near-peaking facilities. These are precisely the kind of generators that can and need to be fully phased out in favor of renewable energy and battery storage as soon as possible. Estimates from independent reviewers and the New York State Energy Research and Development Authority have suggested that batteries can save millions of dollars per year for ratepayers, in contrast to the hundreds of millions that peaker plants charge in capacity payments.

As a New York City-based coalition, we must also highlight that low-income people of color, especially public housing residents on Staten Island, bear many of the same burdens created by BEC as residents in New Jersey. BEC was constructed in close proximity to NYC's disadvantaged communities and faced bipartisan local opposition when originally proposed. In particular, there is one New York City Housing Authority public housing campus within half a mile of BEC and two additional ones within a 3-mile radius of Bayonne, all located on Staten Island's North Shore, a state-identified Disadvantaged Community. Reasonable consideration must be given to these residents who fall under the equivalent level of environmental burdens and protections under either State's environmental justice laws.

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[9] DiChristopher, Tom. "Hydrogen Blending in Gas Pipelines Faces Limits Due to Leakage: US DOE Lab," October 27, 2023. https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/102723-hydrogen-blending-in-gas-pipelines-faces-limits-due-to-leakage-us-doe-lab.

[10] Cellek, Mehmet Salih, and Ali Pınarbaşı. "Investigations on Performance and Emission Characteristics of an Industrial Low Swirl Burner While Burning Natural Gas, Methane, Hydrogen-Enriched Natural Gas and Hydrogen as Fuels." International Journal of Hydrogen Energy 43, no. 2. Januof contrastary 11, 2011. https://doi.org/10.1016/j.ijhydene.2017.05.107.

[11] Kawasaki Heavy Industries, Ltd. "World's First Successful Technology Verification of 100% Hydrogen-Fueled Gas Turbine Operation with Dry Low NOx Combustion Technology Improving Power Generation Performances to Realize a Hydrogen Society," July 21, 2020. https://global.kawasaki.com/news_200721-1e.pdf.

Given that New York's Climate Leadership and Community Protection Act requires that the state's electrical demand system achieves zero emissions by 2040 and accounts for emissions produced out-of-state, New York will not be able to source power from BEC, as it currently operates, in just over a decade.[12] Therefore, planning and implementing BEC's transition to cleaner technologies now will ensure New York can continue sourcing power from BEC in the future—ensuring reliability while also creating green jobs in New Jersey.

As much as the PEAK Coalition believes in the benefits of a well-integrated region-wide transmission and distribution system, we've heard repeatedly from communities that we work with on the need and benefits for local solutions to improve resiliency, too, instead of shifting burdens onto another disadvantaged community.

V. Conclusion

As Bayonne Energy Center pursues permits for continued operation and the New Jersey Department of Environmental Protection reviews such application, it is the PEAK Coalition's view that there must be additional restrictions put onto the future operation of BEC consistent with laws and authorities granted to protect environmental justice communities. The full range of these protections is necessary for the public health and economic well-being of residents, not only in Bayonne, but across the New York Harbor. It is in this spirit that the PEAK Coalition also fully supports the comments submitted by New Jersey Environmental Justice Alliance and partners on their recommendation to hybridize the Bayonne Energy Center by installing on-site long-duration battery storage to replace one or more of the units, as well as study the impact of installing solar energy systems as well as geothermal systems. As we've laid out in our technical feasibility evaluation and considerations for New York State laws, hybridization and long-term phase-out is the best and only future for this emitting facility that intimately impacts our shared air.

Signed,

The PEAK Coalition:
New York City Environmental Justice Alliance
New York Lawyers for the Public Interest
Clean Energy Group
The POINT Community Development Corporation
United Puerto Rican Organization of Sunset Park (UPROSE)

[12] PSL § 66-p(2). ECL § 75-0101(13) defines statewide greenhouse gas emissions to include emissions "produced outside of the state that are associated with the generation of electricity imported into the state."