



**BOROUGH OF ALPINE
RESOLUTION #046:1'2019**

**RESOLUTION OPPOSING CONSTRUCTION OF THE NORTH BERGEN
LIBERTY GENERATING GAS-FIRED POWER PLANT**

OFFERED BY: Councilwoman Frankel

SECONDED BY: Councilwoman Gerstein

at the regular meeting of the Mayor and Council of the Borough of Alpine held on Thursday, January 23, 2019

Whereas, Los Angeles-based Diamond Generating Corporation, a subsidiary of Mitsubishi, has proposed and has requested permits to build a \$1.5B, 1,200-MW natural gas-fired power plant (aka North Bergen Liberty Generating Station) in North Bergen, NJ on a 15-acre parcel near Railroad Avenue on the banks of Bellman's Creek. The electric energy produced by this plant would be transmitted by a 6.5 mile, 345-kV underground and submarine cable through North Bergen, Fairview, Cliffside Park and Edgewater and a new cable trench under the Hudson River to connect with ConED's substation on West 49th Street in Manhattan. All of this electricity would be used by ConED in New York. The project is anticipating permit approvals by the Environmental Protection Agency and the New Jersey Department of Environmental Protection by the end of 2019, and to be operational by 2022;¹ and

Whereas, this natural gas plant would be one of the largest sources of air pollution and greenhouse gas emissions in New Jersey;² and

Whereas, the municipality and town council of Alpine has a principal responsibility to protect the health and safety of its residents, businesses and institutions; and

Whereas, the people and environment of New Jersey have been increasingly subjected to a build-out of natural gas infrastructure, including but not limited to pipelines and distribution networks, compressor stations, power plants, combustion heating systems, metering and regulation stations, and pigging stations; and

Whereas, peer-reviewed scientific studies³ link exposure between air pollutants emitted from natural gas infrastructure facilities and neurological, cardiovascular and respiratory disease, cancer, birth defects, and other adverse health impacts. Acute health impacts from these toxic exposures can cause burning eyes, headaches, breathing difficulty and nausea for nearby populations and can exacerbate health problems. Chronic health impacts can include certain types of cancer as well as damage to lungs, liver, kidneys, reproductive, nervous and cardiovascular systems; and

Whereas, the American Medical Association acknowledges the hazards of natural gas infrastructure and associated adverse health impacts; and

Whereas, the National Ambient Air Quality Standards (NAAQS) are based on average population risks across a large area over a long period of time but do not adequately address human toxicity for residents living in close proximity to natural gas infrastructure or where they are subject to episodic high exposures during events such as blowdowns; and

Whereas, on Feb. 7, 2010 a gas blow operation was being performed at the Kleen Energy Systems LLC power plant construction site in Middletown, Conn. in which flammable natural gas was pumped under high pressure through new fuel gas lines to remove debris. During this operation, an extremely large amount of natural gas was vented into areas where it could not easily disperse. Welding and other work was being performed nearby, creating an extremely dangerous situation. An explosion occurred when the gas contacted an ignition source taking the lives of six workers and injuring 50 others⁴; and

Whereas the top 11 electric plant operators in the U.S. have been fined over \$13.3B since 2000 for 161 environmental violations, and⁵

Whereas, current protocols used for assessing compliance with ambient air quality standards do not adequately determine intensity, frequency or durations of actual human exposures to pollutants and mixtures of pollutants emitted from natural gas infrastructure, noting that periodic 24-hour average measures can underestimate actual exposures by an order of magnitude; and

Whereas, gas infrastructure facilities can annually emit into the air hundreds of tons of pollutants including particulate matter, toxic chemicals such as sulfur dioxide, mercury, and criteria pollutants (such as nitrogen oxides which cause smog, acid rain and contribute to ozone production),⁶ some of which are known carcinogens such as benzene and formaldehyde, and can also be sources of radioactive contamination⁷ and are known to increase the severity of asthma and other respiratory diseases. Particulate matter, once inhaled, can affect the heart and lungs and cause serious health effects including lung cancer. Long-term exposure to ozone is linked to aggravation of asthma, emphysema, and chronic bronchitis, and it is likely to be one of many causes of asthma development. Long-term exposures to ozone may also be linked to permanent lung damage, such as abnormal lung development in children. Both ozone and particulate pollution have been linked to premature death, cardiovascular harm and increased susceptibility to infections. Recent studies have also linked air pollution to increases in obesity, diabetes, Parkinson's disease, Alzheimer's and other forms of dementia and stroke.⁸ People most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers; and

Whereas, the best estimates of annual emission from the proposed power plant are based on a careful sample set of EPA data on U.S. gas-fired power plants of the same type (combined-cycle), similar vintage (online since 2012) and comparable size (complexes of over 300 megawatts) but nevertheless may differ from actual results due to a number of variations in the periodicity of EPA data collection and plant operating conditions. However, reasonable annual estimates are expected to be in the range of the amounts shown below. (Note: NO_x refers to nitrogen dioxide and nitric oxide, SO_x refers to many types of sulfur and oxygen compounds such as sulfur monoxide, sulfur dioxide, higher sulfur oxides, and disulfur oxides) :⁹

- CO₂ = 3.5 million metric tonnes^{10 11}
- NO_x = up to 375,000 pounds
- Methane = 73 metric tonnes¹²
- SO_x = up to 30,000 pounds; and

Whereas, people who live or work in close proximity to natural gas infrastructure facilities such as power plants and compressors are most at risk—particularly developing fetuses, children, the elderly, and those with cardiovascular, lung or respiratory problems and other vulnerable subpopulations, although under certain weather and terrain conditions, these pollutants can have a wider impact. Some homes in New Jersey are within 3,000 feet of the proposed plant and Harlem/Upper Manhattan (where one in four children suffers from asthma), which is downwind of the prevailing winds, is within 3.6 miles; and

Whereas, based on the American Lung Association "State of the Air 2018" report, the counties of Bergen and Hudson, which will be most impacted by emissions from this power plant already have significant populations (in some cases the largest in New Jersey), with pediatric and adult asthma, COPD, lung cancer, cardiovascular disease and diabetes,¹³ whose conditions will only be exacerbated by additional volumes of air pollution; and

Whereas, developing fetuses and children are uniquely vulnerable to exposures as they receive proportionally greater doses of pollutants than adults and have immature organs and detoxification systems¹⁴; and

Whereas, methane is the primary ingredient of natural gas and leaks at every system stage, including extraction, processing, transmission, distribution, and end-use consumption; and

Whereas, methane is an extremely potent greenhouse gas with a global warming potential that is 34 times that of carbon dioxide over a 100-year timeframe and 86 times that of carbon dioxide over a 20-year timeframe; and

Whereas, methane emissions from gas power plants may be considerably higher than previously thought. A 2017 study^{15 16} found that gas-fired power plants released more than 20 times more methane than the facilities had estimated; and

Whereas, Bergen and Hudson Counties (proposed site of the North Bergen plant) already receive grades of 'F' from the American Lung Association for ozone air pollution,¹⁷ the new plant will increase the concentration of ground ozone, increase the health hazards and risks from this pollutant and make it even more difficult to reduce the level of this pollutant. Conditions such as chronic obstructive pulmonary disease (COPD)—a long-lasting obstruction of the airways—can be exacerbated by even small increases in elevated ozone levels (e.g., an increment of 10 ppb), with a corresponding effect on public health and health care costs. As with chronic lung disease, even a small increase in the previous week's average ozone level has substantial effects on death rates. One study showed that a small (10 ppb) increase in ozone pollution was associated with a 0.52 percent increase in deaths per day. This study found that an estimated 3,700 deaths annually in the U.S. could be attributed to this small increase in daily ozone levels;¹⁸ and

Whereas, New Jersey's environmental justice communities already have some of the worst air quality in the nation, building another massive gas power plant will only exacerbate their plight; and

Whereas, municipalities to the North and Northeast of the proposed gas-fired plants will be particularly impacted by the Palisades ridge to the East that will prevent pollution from being easily dispersed to the East on prevailing westerly winds; and

Whereas, the proposed gas-fired electric plant will be approximately one mile from an existing gas-fired electric plant operated by PSE&G that is already one of the largest sources of air pollution in New Jersey and which already produces over 2 million metric tons of CO2 annually,

Whereas, of the top 10 companies (parent corporations) most penalized for environmental violations in the US, nine are in the petroleum and energy industry and five are in the electric energy production industry (American Electric Power, Duke Energy, Dominion Energy, FirstEnergy and Alliant Energy);¹⁹ and,

Whereas, the proposed gas-fired plant will produce limited economic benefits to the town of North Bergen and, to a lesser degree, surrounding towns, this will primarily occur during the construction phase²⁰ (due, in part, to the fact that NJ electrical generating equipment is exempt from property tax) and after that the residents of these towns will continue to incur the health care costs associated with increased pollution for another 30 to 40 years; and

Whereas, the annual health impacts of burning 1 (one) Bcf/day of gas in the NY/NJ metropolitan area are estimated to be:²¹ ; and

| Impact | Incidents per year | Societal Value* | Direct Medical and Other Costs |
|----------------------|--------------------|-----------------|--------------------------------|
| Premature Mortality | 35.3 | \$238,712,000 | \$10,585,000 |
| Chronic Bronchitis | 22.3 | \$10,554,000 | \$2,700,000 |
| Hospital+ER visits | 32.8 | \$432,000 | \$345,000 |
| Asthma Attacks | 724.5 | \$43,000 | \$42,000 |
| Respiratory Symptoms | 32,720 | \$1,190,000 | \$1,190,000 |
| Work Loss Days | 6,374 | \$1,160,000 | \$1,079,000 |
| Mercury Related | NA | \$12,277,000 | \$13,277,000 |
| Total | | \$265,369,000 | \$29,217,000 |

*Costs to consumers for which they are not reimbursed.

Whereas, an alternative approach to producing electricity from solar panels which would avoid all of the environmental and health issues noted in this resolution while still providing new jobs and other financial benefits to local towns and would be in conformance with Governor Murphy's goal to increase the use of renewable energy even if all of the electricity was sold to New York City, could potentially gain local support and should be considered; and

Whereas, the NJ Work Environmental Council has stated, "Climate justice is worker justice. We stand together for both worker protections and strong climate policies because we can't have one without the other. An injury to the planet is an injury to us all;"²² and

Whereas, the proposed gas-fired plant will provide electric energy to New York only, residents of Hudson and Bergen Counties and the rest of New Jersey will only incur the health care costs and environmental degradation caused by the plant during construction and operation; and

Whereas, the gas-fired power plant represents a direct threat to one of the state's most crucial ecological resources. Wetlands such as the Meadowlands serve many beneficial functions. They are a natural filtration system, purifying our water. They preserve biodiversity by hosting a number of plant and animal species. They play a crucial role in flood mitigation by absorbing storm waters, protecting urban or residential communities in nearby flood zones. The construction of and pollution from the proposed plant could affect quantity and quality of water flows, thereby harming the delicate animal and plant habitats in the wetlands and undermining their critical hydrological functions. The rehabilitation of the Meadowlands, which has been a triumph for the local groups that have worked hard to recover this area, would be squandered in order to provide power to New York City residents; and

Whereas, the plant will be within the half mile US DOT Evacuation Zone for oil train derailments which have been known to explode and can only be handled by letting them burn out; and

Whereas, location of the plant conflicts with the Regional Plan Association's 2017 finding of the Meadowlands being at risk from sea level rise. The RPA's Fourth Regional Plan²³ found that "of all the places in the tri-state region challenged by increased flooding from climate change, the New Jersey Meadowlands is at greatest risk." It also concluded that "The Meadowlands are also likely to be one of the first places to be permanently inundated from sea-level rise."; and

Whereas, geological changes along the East Coast are causing land to sink along the seaboard. This is exacerbating the flood-inducing effects of sea level rise, which has been occurring faster in the western Atlantic Ocean than elsewhere in recent years. A 2016 article in Scientific American²⁴ reported that Sandy Hook is sinking at the rate of over one inch per decade while regional sea level is rising at over three inches per decade; and

Whereas, construction would require digging a 40 foot trench through the Meadowlands to connect to Williams' Transco Pipeline, thus risking damage to sensitive wetlands. The connection to the Williams pipeline may require upgrades to the line and expansion of its compressor station at Riverdale risking increases in dangerous emissions from the compressor station; and

Whereas, the owners of the proposed gas-fired plant have stated this is being built to replace the energy that will be lost when the Indian Point Nuclear Plant is closed,²⁵ a 2017 study by Hudson Riverkeeper and the Natural Resources Defense Council states, "By 2023, assumed new energy efficiency and required new renewable energy [will] provide as much output as IPEC would have produced."²⁶; and

Whereas, the proposed gas-fired plant will require 8.6M gallons of sewage discharge wastewater per day which will allow evaporation of chemicals in the water to contribute to the existing levels of air pollution; and

Whereas, the proposed plant will require diesel generator backups for winter gas shortage situations which in turn will require storage of 1M gallons of diesel fuel onsite which has inherent

risks of spills and leakage which would produce additional air pollution as well as ground pollution to sensitive wetlands and nearby water bodies; and

Whereas, the gas-fired plant will require on site storage of chemicals such as ammonia, bleach and acids as well as trucks to supply these products this increases the potential for spills into nearby wetlands and streams; and

Whereas, the proposed gas-fired plant will increase the volume of fracked-gas used in New Jersey which will also increase the drilling and associated environmentally destructive activities associated with its production and transport²⁷ as well as increased pressure on New Jersey and the Delaware River Basin Commission to accept fracked waste water for disposal; and

Whereas, the proposed gas-fired plant will utilize fracked natural gas thus increasing the amount of energy produced by fossil fuels in direct opposition to Governor Murphy's commitment to moving New Jersey to 100% clean renewable energy usage. This type of massive fossil fuel infrastructure will last for several decades due to its large sunk costs (\$1.5B). This will increase long-term dependence on dirty fossil fuels and their associated environmental damage and health risks and is incompatible with the administration's energy goals. The average New Jersey gas-fired power plants went online 23 years ago and 13 percent of the state's gas plants went online more than 40 years ago.

Therefore, be it resolved that the municipality and town council of Alpine, in the interest of protecting its residents, businesses and institutions, as of January 23, 2019, strongly opposes construction of the North Bergen Liberty Generating power plant.

Be it further resolved, that the Alpine Clerk shall forward this Resolution to

- New Jersey Governor Phil Murphy
- Commissioner of the NJ Department of Environmental Protection
- State Senator Loretta Weinberg
- State Assemblypersons Gordon M. Johnson and Valerie Vainieri Huttle
- Food and Water Watch, 100 Bayard Street, Suite 310, New Brunswick, NJ 08901
- The Sierra Club – New Jersey Chapter, 145 W. Hanover Street, Trenton NJ 08618
- Hackensack Riverkeeper
- Hudson County Freeholders and Administration and all Hudson County Municipal Councils, Boards of Health and Environmental Commissions
- Bergen County Freeholders and Administration and all Bergen County Municipal Councils, Boards of Health and Environmental Commissions
- League of New Jersey Municipalities
- NJ Advance Media

VOTE: AYES: Cacouris, A. Frankel, V. Frankel, Gerstein, Halbreich, Shadok

MOTION CARRIED

I hereby certify that the attached Resolution is a true copy of the Resolution adopted by the Mayor and Council of the Borough of Alpine at a meeting held on Wednesday, January 23, 2019.


Stephanie Wehmann, Borough Clerk

¹ <https://www.northjersey.com/story/news/environment/2018/04/10/new-power-plant-meadowlands-electricity-nyc/503255002/>
<http://newyork.cbslocal.com/2018/04/25/meadowlands-natural-gas-plant-proposal/>

² New Jersey Sierra Club May 2018 E-newsletter,
<https://spark.adobe.com/page/1cwq37BdNL0xg/>

³ PSE for Healthy Energy Repository for Oil and Gas Energy
Research: <https://www.psehealthyenergy.org/our-work/shale-gas-research-library/>

⁴ <https://www.osha.gov/news/newsreleases/national/08052010>

⁵
https://violationtracker.goodjobsfirst.org/prog.php?major_industry_sum=utilities+and+power+generation

⁶ Criteria air Pollutants (CAP), or criteria pollutants, are a set of air pollutants that cause smog, acid rain, and other health hazards. CAPs are typically emitted from many sources in industry, mining, transportation, electricity generation and agriculture. In many cases they are the products of the combustion of fossil fuels or industrial processes.

⁷ Environmental Health Project Report, October 2017: Health Effects Associated with Stack Chemical Emissions from NYS Compressor Stations: 2008-2014: <http://www.environmentalhealthproject-ny.org/>

⁸ <https://www.sciencenews.org/article/list-diseases-linked-air-pollution-growing>

⁹ Food & Water Watch

¹⁰ Letter from NJDEP dated 10/17/18 to William Sheehan, Hackensack Riverkeeper

¹¹ For reference, total NJ greenhouse gas emissions in 2015 were equivalent to 101M metric tons of CO₂ and electricity production in New Jersey currently generates 18M metric tons of CO₂. 3.5M tons is equivalent to a 19.4% increase in CO₂ from electric generation.
<https://www.state.nj.us/dep/aqes/climate/data.html>

¹² This is an estimate provided by the applicant in their DEP permit application and was provided in the NJDEP letter above. However, studies of similar power plants produced an estimate of **1,000 tons per year**. Recent studies of methane emissions from power plants have shown under-reporting by factors ranging from 21 to 120 by the power plant operators.
<http://blogs.edf.org/energyexchange/2017/03/16/study-emissions-from-power-plants-refineries-may-be-far-higher-than-reported/>

¹³ Numbers of residents in 2017 in each county with the diseases shown:

| County | Pediatric Asthma | Adult Asthma | COPD | Lung Cancer | Cardiovascular Disease | Diabetes | Poverty Estimate |
|--------|------------------|--------------|---------|-------------|------------------------|----------|------------------|
| Bergen | 16,376* | 61,021* | 47,586* | 525* | 62,375* | 70,715* | 63,789 |
| Hudson | 11,286 | 44,533 | 29,582 | 379 | 36,091 | 40,122 | 104,660 |

*Highest volume in New Jersey

¹⁴ Reducing the staggering costs of environmental disease in children, estimated at \$76.6 billion in 2008, Trasande, L, et al, Health Affairs, May 2011: <https://www.ncbi.nlm.nih.gov/pubmed/21543421>

¹⁵ Food & Water Watch

¹⁶ <https://www.desmogblog.com/2017/03/20/natural-gas-power-plants-fracking-methane>

¹⁷ American Lung Association 2018 State of the Air report
<http://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/states/new-jersey/>
Shows Hudson and Bergen Counties with grade of F for high ozone days and 22 orange days each

¹⁸https://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/climate-change-and-ozone-pollution.pdf

¹⁹

https://violationtracker.goodjobsfirst.org/prog.php?parent=&major_industry_sum=utilities+and+power+generation&primary_offense_sum=environmental+violation&agency_sum=&hq_id_sum=&company_op=starts&company=&major_industry%5B%5D=&all_offense%5B%5D=&penalty_op=%3E&penalty=&agency_code%5B%5D=&pen_year%5B%5D=&pres_term=&free_text=&case_type=&ownership%5B%5D=&hq_id=&naics%5B%5D=&state=&city=

²⁰ North Bergen Liberty Generating, LLC, Economic and Fiscal Analysis
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjg7o2U8ezaAhXPwVkkHbRSAJAQFjAAegQIABAQ&url=http%3A%2F%2Fdocuments.dps.ny.gov%2Fpublic%2FCommon%2FViewDoc.aspx%3FDocRefId%3D%257BCF578449-B169-4EAF-9661-BE1A91A35A3B%257D&usg=AOvVaw2pa9fo0UCw9omDPB_Zv62o
Shows assumptions and model for financial benefits from the plant.

²¹ <https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u1997/HCWH%20pipeline%20health%20impacts.pdf>

²² <http://www.njspotlight.com/stories/18/04/30/op-ed-workers-and-environmentalists-stand-in-solidarity-on-climate/>

²³ <http://library.rpa.org/pdf/RPA-4RP-Places.pdf>

²⁴ <https://www.scientificamerican.com/article/sinking-atlantic-coastline-meets-rapidly-rising-seas/>

²⁵ <https://www.utilitydive.com/news/mitsubishi-subsiary-seeks-permits-for-15b-gas-plant-to-send-power-to-ny/521146/>

²⁶ <https://www.riverkeeper.org/wp-content/uploads/2017/03/Clean-Energy-for-New-York-16-121-02-23-2017.pdf>

Important caveat: New York will require an aggressive energy efficiency policy framework in order to secure the improvements needed to obtain the energy efficiency levels modeled in this analysis. Critically, such a policy framework is not currently in place in New York for attaining the levels of energy efficiency contemplated.

²⁷ PSR/CHPNY Compendium 5th Edition (March 2018): http://concernedhealthny.org/wp-content/uploads/2018/03/Fracking_Science_Compendium_5FINAL.pdf