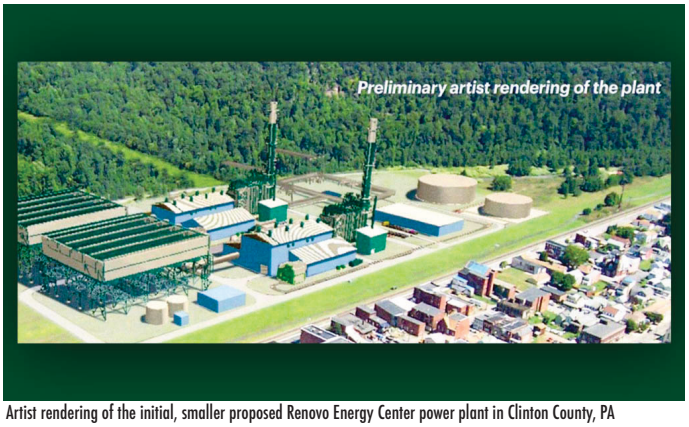
Public Health and Permit Impacts from the Proposed Renovo Power Plant

Introduction

Bechtel Corporation, a Virginia-based multinational engineering corporation, is proposing to develop the Renovo Energy Center natural gas-fired power plant in Renovo Borough, Clinton County, just north of Erie Avenue. Natural gas-fired power plants are large industrial facilities that generate electricity by burning natural gas. According to the U.S. Energy Information Administration, Pennsylvania is the third-largest net supplier of electricity to other states. The electricity generated from the power plant would go into the New York and PJM power grid to transport it to the electricity wholesale market for 13 states and Washington D.C.

In 2020, Renovo Energy Center, LLC applied for an air permit to construct and temporarily operate the power plant and in April 2021, the Pennsylvania Department of Environmental Protection (DEP) granted this permit. In addition, the Pennsylvania Department of Conservation and Natural Resources (DCNR) approved Renovo Energy to construct a 16-inch pipeline through the Sproul State Forest that would provide the natural gas to the power plant. The proposed Renovo Energy Center would be an enormous power plant permitted to emit many tons of air pollutants each year that are known to be harmful to human health. The plant would be the fourth largest industrial polluter of greenhouse gases in Pennsylvania and would emit more greenhouse gases than the City of Pittsburgh.



Artist rendering of the initial, smaller proposed Renovo Energy Center power plant in Clinton County, PA

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Public Health Impacts

The Renovo Energy Center would emit air pollution that can harm public health, especially in vulnerable populations such as children and the elderly. If built, the power plant would emit annually over 200 tons of particulate matter (fine soot), over 300 tons of nitrogen oxides (NOx) and over 100 tons of volatile organic compounds (VOCs). VOCs that would be emitted by the plant include formaldehyde, which is classified as a probable human carcinogen. NOx and VOCs react with heat in the atmosphere to form ground-level ozone (smog), which can cause and aggravate lung diseases and issues.

In addition, the plant would emit nearly 5.5 million tons of greenhouse gases each year, worsening climate change at the very time scientists say we need to rapidly reduce this pollution in the next decade. That's more climate pollution than is emitted by all sources in the entire city of Pittsburgh combined. Hotter temperatures from climate change result in increased smog levels. Based on DEP's calculations on the health costs of NOx and sulfur dioxide pollution, over the lifetime of the plant, its emissions of those pollutants are estimated to generate societal costs of between $87 and $198 million dollars and cause air pollution at levels expected to kill between 10 and 22 people.

Potential to Emit and Possible Health Impacts from Pollutants from Renovo Energy Center

	Potential to Emit (tons)	Public Health Impacts
Particulate Matter (PM)	200	Particulate pollution — especially fine particles (PM2.5) — can get deep into the lungs and cause serious health problems such as premature death in people with heart or lung disease, heart attacks, irregular heartbeat, aggravated asthma, irritation of the airways, coughing or difficulty breathing.
Nitrogen Oxides (NOx)	300	Short-term exposure (30 mins to 24 hrs) to nitrogen oxides (NOx) is connected with respiratory inflammation in healthy individuals and increased respiratory symptoms in individuals with asthma. Elevated short-term exposure is connected with ER visits for respiratory problems. NOx contributes to ozone formation.
Volatile Organic Compounds (VOCs)	100	Some volatile organic compounds (VOCs) can cause cancer in animals; some are suspected or known carcinogens. Immediate symptoms from VOC exposure include eye and respiratory tract irritation, headaches, nausea, dizziness, visual disorders, and memory impairment. VOCs contribute to ozone formation.
Formaldehyde	– – –	Can cause an immune system response upon initial exposure. It is also a cancer hazard. Acute exposure can irritate the eyes, nose, and throat and can make anyone exposed cough and wheeze. Exposure to formaldehyde can be fatal, and long-term exposure to low levels in the air or on the skin can cause asthma-like respiratory problems and skin irritation such as dermatitis and itching. Concentrations of 100 ppm are immediately dangerous to life and health.
Carbon dioxide equivalents (CO2e)	5.5 M	Greenhouse gases such as methane and carbon dioxide are major drivers of climate change. Climate change will lead to hotter, longer summers that make air pollution worse by increasing ozone smog.

Tax Subsidies

The proposed plant would burden residents with these health risks while providing virtually no direct benefits to residents and various levels of government. The site is considered a Qualified Opportunity Zone, which allows Bechtel to defer or not pay federal taxes on capital gains at the Renovo plant. While a Bechtel-commissioned report claims that the project would support up to several hundred short-term jobs, the company has not committed to hiring local residents to fill these positions and the report projects it would employ 25 to 35 people once the plant is constructed. The report states that the jobs at the power plant "may lead to a small number of local support jobs; however, the relatively small number of permanent positions is not expected to cause significant commercial or industrial growth in Renovo or its surrounding communities."

Renovo Energy Pipeline

The Pennsylvania Department of Conservation and Natural Resources (DCNR) is considering an application from Renovo Energy to construct a 16-inch pipeline through the Sproul State Forest that would provide the natural gas required for the proposed power plant to operate. Sproul is the largest forest in the state forest system, covering 305,450 acres. The public enjoys Sproul State Forest for hunting, fishing, wildlife viewing, camping, boating, ATV riding, horseback riding, and for peace and solitude.

The forest contains over 400 miles of cold-water streams, including 12 designated Wilderness Trout Streams. Renovo Energy's proposed pipeline will require over 20 acres of trees to be cleared, which will fragment the forest, promote invasive species, destroy streams as well and wetlands, that the state must protect at the highest levels. This pipeline would provide no public benefit, only injury, to a much beloved and used public resource.

Unresolved Renovo Plant Permitting Issues

- The DEP did not follow its own policies for outreach to the public about the permitting process, and has denied residents their right to voice their concerns through the required enhanced public participation process.
- The power plant would exceed the highest pollution permitting thresholds required to be considered a minor source of air pollution for permitting purposes.
- The air pollution permit sets unlawfully high limits for some types of pollutants from some types of equipment at the power plant.
- The DEP's selection of air pollution control technologies falls short of what the Clean Air Act and Air Pollution Control Act require. Where control technology has been demonstrated to reduce air pollution more at other similar facilities, it should not be considered "infeasible" just because the facility is not exactly the same. Better emissions controls are possible for this power plant.
- DEP did not adequately consider greenhouse gas emissions in the choice of equipment for the power plant. The plant, if constructed, should use technology that emits the least amount of greenhouse gases.
- The DEP's alternatives analysis was flawed because it essentially says that wind and solar energy are not viable technologies to generate electricity for the PJM grid. However, this assessment of the facts is incorrect. Solar was the biggest single new contributor to power for the PJM grid in 2020.

Contact us at HealthyRenovo@gmail.com to get involved in raising your concerns about this power plant.