

## Project participants

- **Prince William County Landfill** is an approximately 1,000-acre landfill operated by the Solid Waste Division, which is the division of Public Works responsible for trash disposal, recycling, composting, household hazardous waste collection, and environmental controls to safeguard the community. The wise use of this space helps ensure the community has a place to dispose of waste for many years. The Solid Waste Division strives to extend the landfill's life through strategies to reduce, reuse, and recycle waste.
- **OPAL Fuels Inc.** is a nationwide leader in the production and distribution of low-carbon intensity RNG for heavy-duty trucks. RNG is a proven low-carbon fuel that is rapidly decarbonizing the transportation industry now. OPAL Fuels captures harmful methane emissions at the source and recycles the trapped energy into a commercially viable, lower-cost, and more environmentally friendly alternative to diesel fuel.

## Who do I contact with questions?

If you have questions about the Prince William County Landfill Renewable Gas Facility, please email: [information@opalfuels.com](mailto:information@opalfuels.com).



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## The Prince William County Landfill Renewable Natural Gas Facility

Prince William County and OPAL Fuels are working together to install a state-of-the-art Renewable Natural Gas (RNG) facility at the Prince William County Landfill in Prince William County, Virginia.

## About the project

Landfills generate landfill gas (LFG), which is comprised of 50% methane. Methane is a greenhouse gas that is a primary contributor to climate change. However, when LFG is captured through an engineered gas collection system and controlled via a treatment technology, the harmful impacts of methane are mitigated.

All of the methane is captured. Compared to the existing energy system, this RNG project is greatly more efficient and will eliminate virtually all harmful pollutants, including carbon monoxide, sulfur and nitrogen oxides, and volatile organic compounds.

At full output, the new facility will produce approximately 12.4 million gas gallon equivalents (GGE) of RNG per year. This RNG will be used to fuel vehicles or power homes and businesses – replacing fossil fuels such as diesel and fossil natural gas – resulting in many additional environmental benefits.



**Methane emissions are captured, cleaned, and used to fuel vehicles or power homes and businesses.**

## RNG distribution

The RNG will be transported from the Prince William Landfill to a utility gas interconnect via a natural gas line. The RNG will then run through the existing gas utility distribution network to end users. Currently, we are reviewing alternatives, including a seven-mile-long pipe route that will run underground, and will have ongoing discussions with the County and community. This RNG route would follow an existing electrical transmission corridor to limit the amount of land disturbance for landowners next to the route.

Natural gas lines are very commonplace across the country and are built to the highest safety standards.

Pinnacle Resources Group will continue surveying the proposed gas line routes as we progress in our reviews and assessments. We will engage with the community and all stakeholders to determine the best outcome.

## What is being done to protect our community?

The safety of the community and on-site workers is THE primary focus of Prince William County and OPAL Fuels.

OPAL Fuels and its partners have a strong track record of safely building and operating RNG plants and natural gas lines.

This RNG facility is being built with state-of-the-art continuous monitoring and control systems to ensure its operation with the highest degree of safety. The natural gas line will meet or exceed all Pipeline and Hazardous Materials Safety Administration (PHMSA) safety standards, as well as meeting all standards set by the gas utility.

Also, ongoing training, leadership support, safe work practices, frequent audits, regular messages, and discussions at all levels reinforce our culture of safety in all that we do.

## Project timing

The RNG facility on County Landfill property was reviewed by the Prince William Board of County Supervisors on September 7, 2021. The Board issued Resolution No. 21-474 approving the RNG facility on County Landfill property. Work has begun on the project and the facility is expected to be completed in the fall of 2023.



*Safety of the community and on-site workers is THE primary focus.*

## What are the benefits?

RNG reduces damaging greenhouse gas emissions (GHG). Not only will the RNG produced at this new facility replace fossil fuel derived natural gas, but will also deliver the following environmental benefits:

### Converting harmful methane to beneficial RNG



- RNG projects convert 95% of the captured methane in LFG to RNG and can be used as vehicle fuel or to power homes and businesses. The existing power project is less than 35% efficient at converting the landfill gas to energy.

### Minimizing gas combustion at the landfill, reducing air pollutant emissions that impact the surrounding community



- Landfill emissions are reduced because the RNG plant converts the LFG into RNG and transports it off-site for beneficial use.
- The captured LFG will be converted and processed on-site, significantly reducing the need for combustion of LFG at the landfill.
- The facility will reduce by well over 90% the emissions of pollutants like carbon monoxide (CO), sulfur oxides (SOx), nitrogen oxides (NOx), and volatile organic compounds (VOC) at the landfill.

### Substantially reducing greenhouse gas (GHG) emissions



- The total equivalent emissions reduced will be approximately 89,000 tons/year of CO<sub>2</sub>.
- Using RNG in vehicles is equivalent to avoiding GHG emissions from approximately 950 heavy-duty trucks.