



ASTORIA REPLACEMENT PROJECT

Overview

NRG Energy, Inc. (NRG) is taking measures to fight climate change while minimizing costs and maximizing benefits to New York through the Astoria Replacement Project. In 2023, NRG plans to retire the 50-year-old power generators at our Astoria Generating Station (Astoria) and replace them with state-of-the-art technology that will reduce peak air emission rates by up to 99%, while reliably providing power when New Yorkers need it most. NRG is simply updating a project that has already been fully approved by the state. The new technology is capable of being converted to use zero-emission hydrogen as fuel, once it is commercially available in sufficient quantities.

The NRG Astoria Replacement Project will:

- Maintain dependable electric service in New York City by addressing a known reliability shortfall identified by Con Edison and the independent system operator (NYISO)
- Cumulatively reduce greenhouse gas (GHG) emissions by 5 million tons through 2035
- Create more than 1,000 job-years and \$156 million in economic benefits to the State of New York during the construction period
- Create more than 1,200 job-years and \$170 million in economic benefits to the State of New York from O&M spending through 2040
- Replace older units with state-of-the-art technology, increasing efficiency by 36%
- Provide sufficient energy to power up more than 375,000 homes

QUICK FACTS



Replaces 646 MW of aging equipment with 437 MW of modern technology



Provides more than \$325 million worth of economic benefit to the State of New York



Improves air quality



Improves grid reliability



Potential to be converted to hydrogen fuel in the future

CLEANER, FASTER, MORE RELIABLE

With the retirement of the Indian Point nuclear facility and the pending retirement of a number of in-city peaking units, the need for new generation is urgent. Both NYISO and Con Edison have identified local reliability shortfalls in the Astoria area. This project will help provide New York City with dependable energy by allowing our existing Astoria units to retire, resulting in substantially reduced emissions, particularly during the hottest and coldest days of the year.

ASTORIA MOBILE BATTERY STORAGE PROJECT

In addition to the proposed replacement project, NRG is currently building a 1.5 MW/4 MWh mobile battery storage project in partnership with Con Edison to be based at the Astoria site. This mobile battery storage project is the first step in our plans to add significant energy storage to the Astoria facility. The "Storage on Demand" project, scheduled to be operational by summer 2021, is part of Governor Cuomo's Reforming the Energy Vision program. The mobile battery trailers can go where needed to help meet peak loads, or respond to local emergency needs.

ASTORIA — THERE WHEN NEEDED

Astoria is typically called upon to operate for system reliability 35 to 40 times per year. However, during times of crisis and exceptional need, Astoria has been indispensable in keeping the city running:

- **COVID-19 response:** The dedicated staff at NRG maintains 24/7 plant availability, ensuring reliable service for New York City during the pandemic. In addition, NRG recently pledged \$25,000 to support Queens first responders and hospital workers.
- **Con Edison Transformer Explosion** (December 27-28, 2018): NRG Astoria units were dispatched for 23 consecutive hours following Con Edison's nearby substation incident.
- **Polar Vortex** (January 2-29, 2014): Astoria units were dispatched for 291 hours to support local power needs.
- **Hurricane Sandy** (October 29 – November 4, 2012): Astoria units were dispatched for 580 hours to support local power needs. On October 31 alone, ten Astoria units were dispatched continuously between 15-21 hours each.
- **2003 Northeast Blackout** (August 14-16, 2003): Astoria units were dispatched for 353 hours to provide critical power immediately following the blackout at various times over three days to support local power needs.
- **9/11** (September 11-12, 2001): Astoria units were dispatched for 31 hours to support local power needs.
- **Hurricane Irene** (August 26-29, 2001): Astoria units were dispatched for 22 hours over four days to support local power needs.

While these were the events people remember, the need for local additional power can arise at any time.



For more information, please email:
astoria.project@nrg.com
nrg.com