



Astoria Gas Turbine Power LLC  
31-01 20<sup>th</sup> Avenue  
Astoria, New York 11105

**Delivery:** Email to: [chris.hogan@dec.ny.gov](mailto:chris.hogan@dec.ny.gov) with Mail to Follow

August 21, 2020

Mr. Chris Hogan  
Chief, Bureau of Energy Projects Management  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233-4500

**Subject:**        **Astoria Gas Turbine Power LLC**  
                 **Supplemental Enhanced Public Participation Plan Report**  
                 **Application for Title IV/V Permit Modification (DEC ID: 2-6301-00191)**  
                 **Application for Renewal & Modification of SPDES Permit (DEC No. 2-**  
                 **6301/00181/00014)**  
                 **DEC Project No.: 2-6301-00191/00003**

Dear Mr. Hogan:

Astoria Gas Turbine Power LLC ("Astoria"), a wholly-owned subsidiary of NRG Energy, Inc. ("NRG"), has proposed to modify its previously approved project ("Replacement Project" or "Project") and replace its existing natural gas and liquid fuel fired combustion turbines at the Astoria Gas Turbine Generating Facility located at 31-01 20th Ave., Astoria, Queens County, New York ("Facility") with a single new state-of-the-art simple cycle combustion turbine generator ("CTG"). As part of its pending permit applications package, Astoria submitted to the Department a Draft Supplemental Enhanced Public Participation Plan ("SEPPP"), dated April 2020. In accordance with Section 3.5 of the 1 SEPPP, enclosed is Astoria's First Progress Report regarding its implementation of the SEPPP.

If you have any questions related to the enclosed document, please contact me anytime at (617) 529-3874.

Very truly yours,

A handwritten signature in black ink that reads "Shawn Konary". The signature is written in a cursive, flowing style.

Shawn Konary  
Senior Director - Environmental

Enclosure:

- Supplemental EPPP Progress Report

Copies:        T. Atkins  
                 B. McCabe  
                 Astoria Project File

## 1.0 Report on Progress to Date

In the Supplemental Enhanced Public Participation Plan (SEPPP), which was submitted to the NYSDEC in April 2020, Astoria Gas Turbine Power LLC (“Astoria”) agreed to submit quarterly reports summarizing its progress related to the implementation of the plan. Since the submission of the SEPPP, Astoria has held approximately sixteen (16) meetings with community organizations, environmental groups, government agencies and elected officials, both formally and informally, to obtain feedback on potential community concerns regarding the Replacement Project. In addition, Astoria held an additional public meeting on July 16, 2020 to (i) Inform the public about proposed modifications to the previously approved Astoria Replacement Project, (ii) provide the status of applications to modify the Facility’s existing permits and (iii) identify opportunities for future public participation in the process including NYSDEC’s supplemental review under the State Environmental Quality Review Act (SEQRA). While the Replacement Project itself is not in a residential area, it is in a potential environmental justice area (PEJA) designated by NYSDEC. As such, Astoria has undertaken the SEPPP consistent with CP-29 and NYSDEC’s April 24, 2020 *Guidance on Commissioner’s Policy 29 During the COVID-19 Public Health Crisis*. Astoria will continue to implement the SEPPP by providing information to the public until all approvals and/or permits are obtained for the Replacement Project.

### 1.1 Project Information

In advance of the public information meeting discussed in Section 1.2 below, Astoria prepared a factsheet on the project in several languages including English, Greek, Spanish and Bengali. These factsheets are available on Astoria’s website, [www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com), along with a number of other important project documents. Copies of the factsheets are provided in **Appendix A**.

### 1.2 Public Meeting

Given the current coronavirus public health crisis, the required social distancing measures implemented at the state and federal level and workforce reduction directives for non-essential businesses, Astoria conducted its additional public informational meeting virtually. On July 16, 2020, Astoria hosted a virtual public information meeting on the Project from 7:00-9:00 PM. The public meeting was noticed on the Astoria online repository and in two local newspapers (The Queens Chronicles and The Queens Gazette) three weeks prior to the meeting. Meeting notices were also mailed to the project’s comprehensive stakeholder list fifteen days prior to the meeting, along with a copy of the NYSDEC July 1, 2020 ENB Notice of Positive Declaration and Public Scoping. A copy of the legal notices, informational stakeholder flyer, public meeting presentation and a summary of the public meeting are provided in **Appendix B**. Participants were provided an opportunity to view the virtual public meeting by computer or to listen to an audio of the public information meeting by telephone. Interested parties were also provided an opportunity to provide comments to the public meeting by email, voicemail, or by US postal mail until August 3, 2020.

### 1.3 Recent Supplemental Public Outreach Activities

Astoria’s recent public outreach activities for the Replacement Project are summarized below.

- On June 27, 2017, Astoria representatives met separately with New York City (“NYC”) Council member Costa Constantinides and NYS Assembly member Aravella Simotas.
- On June 27, 2017, Astoria representatives provided NYS Senator Michael Gianaris with an update on the Replacement Project.
- On June 28, 2017, Astoria representatives met with NYC Office of Sustainability.

- On June 28, 2017, Astoria representatives met with NYS Senator Gianaris and Chief of Staff.
- On June 29, 2017, Astoria representatives met with NYS Assembly member Simotas and Chief of Staff.
- On July 20, 2017, Astoria representatives led a plant visit with the City's Office of Sustainability.
- On August 2, 2017, NYS Assembly member Simotas, NYS Senator Gianaris, and NYC Council member Constantinides cosigned a letter to the PSC providing support for the Replacement Project.
- On August 14, 2017, Susanne DesRoches, NYC Mayor's office of Recovery and Resiliency, cosigned a letter to the PSC providing support for the Replacement Project.
- On October 18, 2018, Astoria representatives participated in an Astoria Development Meeting with the Utility Workers Union of American ("UWUA") Local 1-2 held at the Piccola Restaurant in Astoria.
- On November 19, 2018, Astoria representatives met with the NYC Mayor's Staff and Office of Sustainability.
- On November 19, 2018, Astoria representatives met with NYS Governor's Office and the New York State Energy Research and Development Authority ("NYSERDA") to provide an update on the Project and the status of the Petition before the PSC regarding the non-applicability of Article 10 to the Replacement Project ("Petition").
- On December 4, 2018, Astoria representatives met with NYS Senator Gianaris and NYS Assembly member Simotas to discuss the pending declaratory ruling on the Petition before the Siting Board.
- On December 10, 2018, Astoria representatives had a project update meeting with NYC Council member Constantinides.
- On January 10, 2019, Astoria representatives met with the PSC Policy Director to discuss the Energy Storage decision and its impact on the Petition.
- On March 11, 2019, Astoria representatives met with NYS Assembly member Simotas to provide her with an update on the status of the Petition.
- On March 19, 2019, Astoria representatives met with the New York State Department of Public Service ("DPS") staff to discuss the pending declaratory ruling on the Petition before the Siting Board.
- On March 19, 2019, Astoria representatives and UWUA met separately with NYS Senator Gianaris, NYS Senator Kevin Parker, NYS Senator Jessica Ramos, and NYS Governor's Energy Staff.
- On March 25, 2019, Astoria representatives attended a meeting with Queens Community Board 1.
- June 5, 2019, Astoria representatives met to provide New York Independent System Operator's ("NYISO's") Chief Operating Officer, Vice President of Market Opportunities and Vice President of Planning an update on the Replacement Project.
- On January 24, 2020, Astoria representatives met with NYC Mayor's Staff Office of Sustainability to provide an update on the Replacement Project.
- On May 8, 2020, Astoria representatives held a Webex meeting with NYC Mayor's Staff Office of Sustainability and Department of Environmental Protection to provide an update on the Replacement Project.
- On May 11, 2020, Astoria representatives provided NYS Senator Gianaris with a project update.
- On May 14, 2020, Astoria representatives had a Webex project update meeting with Staff for NYC Council member Constantinides.

- On May 18, 2020, Astoria representatives held a Webex meeting with Acting Queens Borough President, Sharon Lee discuss the Replacement Project.
- On May 19, 2020, Astoria representatives held a Webex meeting with NYS Senator Ramos to discuss the Replacement Project.
- On May 21, 2020, Astoria representatives provided a project update to Jessica Scott within the Governor's Energy and Environmental Deputy Secretary's Office.
- On May 22, 2020, Astoria representatives held a Webex meeting with the Building and Construction Trades Council of Greater New York.
- On June 1, 2020, Astoria representatives held a Webex meeting with Queens Chamber of Commerce.
- On June 11, 2020, Astoria representatives held a Webex meeting with the NYS League of Conservation Voters.
- On June 15, 2020, Astoria representatives held a Webex meeting with Queens Community Board 1.
- On June 16, 2020, Astoria representatives held a Webex meeting with the National Resources Defense Council.
- On June 17, 2020, Astoria representatives held a Webex meeting with the Regional Planning Association.
- On July 9, 2020, Astoria representatives held a teleconference with senior leadership from Utility Workers Union of America Local 1-2.
- On July 16, 2020 Astoria Representatives held a virtual public information meeting for the purpose of educating the community, answering questions and soliciting comments on the Astoria Replacement Project.
- On July 28, 2020, Astoria representatives held a Webex meeting with Antonella Di Saveria, the Environmental Protection Committee Chair for Queens Community Board 1.
- On July 28, 2020, Astoria representatives held a Webex meeting with Ali Zaidi, the Deputy Secretary for Energy & Environment and Chairman of Climate Policy & Finance for the Office of Governor Cuomo.

#### **1.4 Website and Repository**

On June 24, 2020, Astoria made available for public access a website [www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com) which includes an overview of the project, as well as an online repository of major project documents. In early June, Astoria reached out to the Astoria Branch of the Queens Public Library with the goal of establishing a repository at the branch. The Astoria Branch of the Queens Public Library recently advised Astoria that the branch is able to accept documents for the repository. Astoria plans to deliver materials for the repository to the branch in the near future.

The repository available on the website includes, but is not limited to, the following types of project documents:

- Permitting documents related to the 2010 project, including the DEIS, FEIS, and Findings Statement;
- Permitting documents related to the 2020 Replacement Project, including the SEIS scoping document, SEPPP, FEAF, air permit application, and SPDES application;
- Project factsheets; and
- Project rendering and visual impact presentation.

#### **1.5 Future Community Outreach Efforts**

Astoria plans to continue to contact key community organizations and elected officials to provide project updates as the permit process continues and will also address comments and concerns of interested stakeholders as they arise. We will also ensure that project materials are available at the Astoria Branch of the Queens Public Library shortly.

## **1.6 Stakeholder List**

On July 1, 2020, Astoria mailed the notice of the Virtual Public Meeting, as well as the NYSDEC Environmental Notice Bulletin, to the stakeholder list included in Astoria's Supplemental Enhanced Public Participation Plan. Both documents are included in **Appendix B**. Mailings were returned as undeliverable for three of the addresses on the stakeholder list. Astoria will attempt to update our mailing addresses or, if appropriate, remove these stakeholders from future mailings.

## **Appendix A**

### **Astoria Replacement Project Factsheets**





## 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

\*based on 2014 levels

#### 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](mailto:astoria.project@nrg.com)  
[nrg.com](http://nrg.com)





## PROYECTO DE REEMPLAZO ASTORIA

NRG Energy, Inc. (NRG) está tomando medidas para combatir el cambio climático, minimizando los costos y maximizando los beneficios para New York a través del Proyecto de Reemplazo Astoria. En 2023, NRG planea retirar los generadores de energía de 50 años de nuestra Estación de Generación Astoria (Astoria) y reemplazarlos con tecnología de vanguardia que reducirá las tasas máximas de emisión de aire hasta en un 99%, a la vez que proporcionará energía confiable cuando los neoyorquinos más la necesiten. NRG simplemente está modernizando un proyecto que ya ha sido completamente aprobado por el estado. La nueva tecnología es capaz de convertirse para utilizar hidrógeno de emisión cero como combustible una vez que esté disponible comercialmente en cantidades suficientes.

### El Proyecto de Reemplazo Astoria de NRG:

- Mantendrá un servicio eléctrico confiable en la ciudad de New York al abordar un conocido déficit de confiabilidad identificado por Con Edison y el operador de sistemas independiente (NYISO)
- Reducirá acumulativamente las emisiones de gases de efecto invernadero (GHG, por sus siglas en inglés) en 5 millones de toneladas hasta 2035
- Creará más de 1,000 trabajos-año y \$156 millones de beneficios económicos para el Estado de New York durante el periodo de construcción
- Creará más de 1,200 trabajos-año y \$170 millones de beneficios económicos para el estado de New York en gastos de operación y mantenimiento hasta 2040
- Reemplazará las unidades más antiguas con tecnología de vanguardia, aumentando la eficiencia en un 36%
- Proporcionará energía suficiente para alimentar a más de 375,000 hogares

### DATOS RÁPIDOS



Sustituye 646 MW de equipos antiguos con 437 MW de tecnología moderna



Proporciona más de 325 millones de dólares en beneficios económicos al Estado de New York



Mejora la calidad del aire



Mejora la confiabilidad de la red



Potencial de convertirse a combustible de hidrógeno en el futuro

## MÁS LIMPIO, MÁS RÁPIDO, MÁS CONFIABLE

Con el retiro de la instalación nuclear Indian Point y con el retiro pendiente de una serie de unidades de maximización en la ciudad, la necesidad de una nueva generación es urgente. Tanto NYISO como Con Edison han identificado deficiencias de confiabilidad local en el área de Astoria. Este proyecto ayudará a proporcionar energía confiable a la Ciudad de New York al permitir que nuestras unidades Astoria existentes se retiren, lo que resultará en una reducción sustancial de emisiones, particularmente durante los días más calurosos y fríos del año.

## PROYECTO DE ALMACENAMIENTO EN BATERÍA MÓVIL ASTORIA

Además del proyecto de reemplazo propuesto, NRG está construyendo actualmente un proyecto de almacenamiento en baterías móviles de 1.5 MW/4 MWh en asociación con Con Edison, que se basará en el sitio de Astoria. Este proyecto de almacenamiento en baterías móviles es un primer paso en nuestros planes de agregar un almacenamiento de energía significativo a las instalaciones de Astoria. El proyecto de "almacenamiento a pedido", que está programado para funcionar el verano de 2021, forma parte del programa Reforma de la Visión Energética del Gobernador Cuomo. Los remolques de baterías móviles pueden ir donde sea necesario para ayudar a satisfacer las cargas máximas o responder a las necesidades de emergencia locales

## ASTORIA, LISTO CUANDO SEA NECESARIO

Astoria es típicamente llamado a operar para la confiabilidad del sistema 35 a 40 veces por año. Sin embargo, durante tiempos de crisis y de necesidad excepcional, Astoria ha sido indispensable para mantener la ciudad en funcionamiento:

- **Respuesta al COVID-19:** El personal dedicado de NRG mantiene la disponibilidad de la planta 24/7, asegurando un servicio confiable para la ciudad de New York durante la pandemia. Además, NRG recientemente prometió \$25,000 para apoyar a personal de emergencia y trabajadores hospitalarios de Queens.
- **Explosión de transformador de Con Edison** (27 - 28 de diciembre de 2018): Las unidades NRG Astoria fueron despachadas durante 23 horas consecutivas después del incidente de la subestación cercana de Con Edison.
- **Vórtice polar** (2 - 29 de enero de 2014): Las unidades Astoria fueron despachadas durante 291 horas para apoyar las necesidades locales de energía eléctrica.

- **Huracán Sandy** (29 de octubre – 4 de noviembre de 2012): Las unidades Astoria fueron despachadas durante 580 horas para apoyar las necesidades locales de energía eléctrica. Solo el 31 de octubre, diez unidades Astoria fueron despachadas continuamente de 15-21 horas cada una.
- **Apagón del Noreste 2003** (14 - 16 de agosto de 2003): Las unidades Astoria fueron despachadas durante 353 horas para proporcionar energía crítica inmediatamente después del apagón en varias ocasiones durante tres días para apoyar las necesidades locales de energía eléctrica.
- **9/11** (3 - 12 de septiembre de 2001): Las unidades Astoria fueron despachadas durante 31 horas para apoyar las necesidades locales de energía eléctrica.
- **Huracán Irene** (26 - 29 de agosto de 2001): Las unidades Astoria fueron despachadas por 22 horas durante cuatro días para apoyar las necesidades locales de energía eléctrica.

Aunque estos fueron los eventos que la gente recuerda, la necesidad local de energía adicional puede surgir en cualquier momento.



[astoria.project@nrg.com](mailto:astoria.project@nrg.com)

[nrg.com](http://nrg.com)





## ΕΡΓΟ ΑΝΤΙΚΑΤΑΣΤΑΣΗΣ ΑΣΤΟΡΙΑ

Η NRG Energy, Inc. (NRG) λαμβάνει μέτρα για αντιμετώπιση της κλιματικής αλλαγής, καθώς ελαχιστοποιεί του κόστος και μεγιστοποιεί το όφελος για τη Νέα Υόρκη μέσω του Έργου Αντικατάστασης Αστόρια. Το 2023 η NRG σκοπεύει να αποσύρει τους 50ετείς παραγωγούς ηλεκτρικής ενέργειας στον σταθμό ηλεκτροπαραγωγής μας στην Αστόρια («Αστόρια») και να τους αντικαταστήσει με τεχνολογία αιχμής που θα μειώσει τα ποσοστά εκπομπών στον αέρα έως και 99%, ενώ παρέχει ρεύμα αξιόπιστα στους Νεοϋορκέζους όταν το χρειάζονται περισσότερο. Η NRG απλώς ενημερώνει ένα έργο που έχει ήδη εγκριθεί πλήρως από το κράτος. Με την καινούργια τεχνολογία υπάρχει δυνατότητα μηδενικών εκπομπών με το υδρογόνο ως καύσιμο όταν θα είναι εμπορικά διαθέσιμο σε επαρκείς ποσότητες.

### Το Έργο Αντικατάστασης Αστόρια της NRG προσφέρει τα εξής:

- Διατηρεί αξιόπιστη ηλεκτροδότηση στην πόλη της Νέας Υόρκης, αντιμετωπίζοντας τη γνωστή έλλειψη αξιοπιστίας που προσδιόρισε η εταιρεία Con Edison και ο ανεξάρτητος διαχειριστής συστήματος (NYISO)
- Μειώνει, αθροιστικά, τα αέρια του θερμοκηπίου κατά 5 εκατομμύρια τόνους έως το 2035
- Δημιουργεί παραπάνω από 1.000 έτη εργασίας και \$156 εκατομμύρια σε οικονομικά οφέλη για την πολιτεία της Νέας Υόρκης κατά τη διάρκεια της περιόδου κατασκευής
- Δημιουργεί παραπάνω από 1.200 έτη εργασίας και \$170 εκατομμύρια σε οικονομικά οφέλη για την πολιτεία της Νέας Υόρκης από δαπάνες λειτουργίας και συντήρησης έως το 2040
- Αντικαθιστά παλαιές μονάδες με τεχνολογία αιχμής, αυξάνοντας την αποδοτικότητα κατά 36%
- Παράσχει επαρκή ενέργεια για ηλεκτροδότηση σε πάνω από 375.000 σπιτικά

### ΣΥΝΟΠΤΙΚΑ ΓΕΓΟΝΟΤΑ



Αντικαθιστά 646 MW παλαιού εξοπλισμού με 437 MW σύγχρονης τεχνολογίας.



Προσφέρει αξία πάνω από \$325 εκατομμυρίων σε οικονομικές παροχές στην πολιτεία της Νέας Υόρκης



Βελτιώνει την ποιότητα του αέρα



Βελτιώνει την αξιοπιστία του δικτύου



Δυνατότητα μετατροπής σε καύσιμο υδρογόνο στο μέλλον

## ΚΑΘΑΡΟΤΕΡΑ, ΤΑΧΥΤΕΡΑ, ΠΙΟ ΑΞΙΟΠΙΣΤΑ

Με τη διακοπή λειτουργίας του πυρηνικού εργοστασίου στο Ίντιαν Πόιντ και εν αναμονή της διακοπής λειτουργίας ορισμένων επιμέρους μονάδων εντός πόλης, η ανάγκη για νέα ηλεκτροδότηση επείγει. Τόσο ο ανεξάρτητος διαχειριστής συστήματος (NYISO) όσο και η εταιρεία Con Edison έχουν εντοπίσει τοπικές ελλείψεις στην αξιοπιστία στην περιοχή Αστόρια. Το έργο αυτό θα βοηθήσει στην παροχή αξιόπιστης ενέργειας για την πόλη της Νέας Υόρκης, επιτρέποντας στις υπάρχουσες μονάδες της Αστόρια να αποσυρθούν, με αποτέλεσμα σημαντικά μειωμένες εκπομπές, ιδιαίτερα κατά τις πιο ζεστές και πιο κρύες ημέρες του έτους.

## ΕΡΓΟ ΑΠΟΘΗΚΕΥΣΗΣ ΚΙΝΗΤΩΝ ΜΠΑΤΑΡΙΩΝ ΓΙΑ ΤΗΝ ΑΣΤΟΡΙΑ

Εκτός από το προτεινόμενο έργο αντικατάστασης, η NRG κατασκευάζει σήμερα έναν χώρο αποθήκευσης κινητών μπαταριών 1,5 MW/4 MWh σε συνεργασία με την Con Edison στην εγκατάσταση Αστόρια. Αυτό το έργο αποθήκευσης κινητών μπαταριών είναι ένα πρώτο βήμα στα σχέδιά μας να προσθέσουμε σημαντική αποθήκευση ενέργειας στο εργοστάσιο της Αστόρια. Το έργο «Αποθήκευση κατά παραγγελία», που έχει προγραμματιστεί να τεθεί σε λειτουργία έως το καλοκαίρι του 2021, αποτελεί μέρος του προγράμματος Μεταρρύθμισης του Ενεργειακού Οράματος του κυβερνήτη Κουόμο. Τα τρέιλερ κινητών μπαταριών μπορούν να μεταβούν όπου χρειάζεται για να παράσχουν ενέργεια σε απαιτήσεις αιχμής ή να ανταποκριθούν σε τοπικές ανάγκες έκτακτης ανάγκης.

## ΑΣΤΟΡΙΑ - ΠΑΡΕΥΡΙΣΚΕΤΑΙ ΟΠΟΤΕ ΧΡΕΙΑΖΕΤΑΙ

Το Αστόρια καλείται να ανταποκριθεί με αξιοπιστία του συστήματος 35 έως 40 φορές ετησίως. Ωστόσο, σε περιόδους κρίσης και εξαιρετικής ανάγκης, το Αστόρια ήταν πρωτεύουσας σημασίας στη διατήρηση λειτουργίας της πόλης:

- **Απόκριση στον COVID-19:** Το αφοσιωμένο προσωπικό της NRG διατηρεί συνεχή διαθεσιμότητα του εργοστασίου επί 24ώρου βάσης, εξασφαλίζοντας αξιόπιστη εξυπηρέτηση των αναγκών της πόλης της Νέας Υόρκης στη διάρκεια της πανδημίας. Επιπλέον, η NRG πρόσφερε πρόσφατα \$25.000 για υποστήριξη ατόμων πρώτων βοηθειών και εργαζομένων σε νοσοκομεία.
- **Έκρηξη μετασχηματιστή της Con Edison (27-28 Δεκεμβρίου 2018):** Οι μονάδες της NRG στην Αστόρια απεστάλησαν για 23 συνεχόμενες ώρες μετά το περιστατικό στον κοντινό υποσταθμό της Con Edison.
- **Πολική δίνη (2-29 Ιανουαρίου 2014):** Οι μονάδες της Αστόρια απεστάλησαν για 291 ώρες για υποστήριξη των τοπικών ενεργειακών αναγκών.

- **Τυφώνας Σάντι (29 Οκτωβρίου - 4 Νοεμβρίου 2012):** Οι μονάδες της Αστόρια απεστάλησαν για 580 ώρες για υποστήριξη των τοπικών ενεργειακών αναγκών. Στις 31 Οκτωβρίου και μόνο, δέκα μονάδες της Αστόρια αποστέλλονταν συνεχώς, από 15-21 ώρες η καθεμία.
- **Γενική διακοπή ρεύματος βορειοανατολικά, 2003 (14-16 Αυγούστου 2003):** Οι μονάδες της Αστόρια απεστάλησαν για 353 ώρες για παροχή ηλεκτρισμού αμέσως μετά τη γενική διακοπή ρεύματος σε διάφορες χρονικές στιγμές σε διάρκεια περιόδου τριών ημερών για στήριξη των τοπικών ενεργειακών αναγκών.
- **11 Σεπτεμβρίου (11-12 Σεπτεμβρίου 2001):** Οι μονάδες της Αστόρια απεστάλησαν για 31 ώρες για υποστήριξη των τοπικών ενεργειακών αναγκών.
- **Τυφώνας Αϊρίν (26-29 Αυγούστου 2001):** Οι μονάδες της Αστόρια απεστάλησαν για 22 ώρες σε διάστημα τεσσάρων ημερών για υποστήριξη των τοπικών ενεργειακών αναγκών.

Ενώ αυτά ήταν τα γεγονότα που θυμούνται οι άνθρωποι, η ανάγκη για επιπλέον ηλεκτρισμό τοπικά μπορεί να προκύψει ανά πάσα στιγμή.



[astoria.project@nrg.com](mailto:astoria.project@nrg.com)

[nrg.com](http://nrg.com)





## অ্যাস্টেরিয়া প্রতস্থাপন প্রকল্প

NRG Energy, Inc. (NRG) অ্যাস্টেরিয়া প্রতস্থাপন প্রকল্পের মাধ্যমে নডি ইয়র্করে বৃষ সংকোচন এবং সর্বধাধিক সুবধি প্রদান করছে। জলবায়ু পরিবর্তনের বর্ধিদ্ধে লড়াইয়ের বৃষবস্থা গ্রহণ করছে। 2023 সালে NRG আমাদরে অ্যাস্টেরিয়া জনোরটেং স্টেশনে (অ্যাস্টেরিয়া) 50 বছরে পুরনো বদ্যুৎ জনোরটেরকে অবসরে পাঠিয়ে সগেলকি অত্যাধুনিক প্রযুক্তিদিযি প্রতস্থাপন করার পরকিল্পনা করছে যা পকি সময়ে বায়ু নরিগমনের হারকে 99% প্রযন্ত কমযি দেবে, একই সাথে বশিবস্তুতার সাথে নডি ইয়র্কবাসীদরেকে পাওয়ার সরবরাহ করবে যখন তাদের এটির সবচযে বশে প্রযোজন। NRG কেবলমাত্র একটি প্রকল্পকে আপডেট করছে যা ইতোমধ্যে স্টেটের দ্বারা সম্পূর্ণ অনুমোদতি হযছে। নতুন প্রযুক্তিটি বাণজ্যিকভাবে প্রযাপ্ত পরমাণে পাওয়া গেলে স্টেশিন্য-নরিগমন হাইড্রোজেনকে জ্বালান হিসেবে বৃষহারে রূপান্তরতি হতে সক্ষম হবে।

### NRG এর অ্যাস্টেরিয়া প্রতস্থাপন প্রকল্প যা যা করবে:

- কন এডসিন (Con Edison) এবং স্বাধীন সিস্টেমে অপারটের (NYISO) দ্বারা চহিনতি একটি নরিভরযোগ্যতা ঘাটতি মোকাবলোয় নডি ইয়র্ক সটিতি নরিভরযোগ্য বদ্যুতকি সবো বজায় রাখবে
- 2035 সালের মধ্যে গ্রীনহাউস গ্যাসরে (GHG) নরিগমন 5 মলিয়ন টন প্রযন্ত কমযি আনবে
- নরিমাণকালীন সময়ে নডি ইয়র্ক স্টেটে 1,000 এর বশে চাকর-বিছর এবং \$156 মলিয়ন অর্থনৈকি সুবধিসমূহ তরৈকিরবে
- 2040 সাল জুড়ে O&M এর খরচ থেকে নডি ইয়র্ক স্টেটে 1,200 এর বশে চাকর-বিছর এবং \$170 মলিয়ন অর্থনৈকি সুবধিসমূহ তরৈকিরবে
- 36% প্রযন্ত দক্ষতা বাড়যি পুরনো ইউনিটসমূহকে অত্যাধুনিক প্রযুক্তিদিযি প্রতস্থাপন করবে
- 375,000 এরও বশে বাড়তি বদ্যুৎ সরবরাহরে জন্য প্রযাপ্ত শক্তি সরবরাহ করবে

### কুইক ফ্যাক্টস



437 MW এর আধুনিক প্রযুক্তিদিযি  
646MW এর পুরনো যন্ত্রপাতি  
প্রতস্থাপন করে



নডি ইয়র্ক স্টেটকে \$325 মলিয়নের বশে  
অর্থনৈকি সুবধি প্রদান করে



বাতাসরে গুণমান উন্নত করে



গ্রডিরে নরিভরযোগ্যতা উন্নত করে



ভবষিতে হাইড্রোজেনে জ্বালানতি  
রূপান্তরতি হওয়ার সম্ভাবনা



## আরো পরামর্শ, আরো দ্রুত, আরো নরিভরযোগ্য

ইন্ডিয়ান পয়েন্ট পারমাণবিক ফ্যাসলিটিরি অবসরে যাওয়া এবং সটির বশে কয়েকটি পিকিং ইউনিটে পরে অবসরে যাওয়ার সম্ভাবনার কারণে, নতুন জনোরশন অতিপ্রয়োজনীয়। NYISO এবং কন এডসিন উভয়ই অ্যাস্টরিয়া অঞ্চলে স্থানীয় নরিভরযোগ্যতার ঘাটতিকে চিহ্নিত করছেন। এই প্রকল্পটি আমাদরে বদ্যমান অ্যাস্টরিয়া ইউনিটগুলিকে অবসরে পাঠিয়ে নডি ইয়রক সটিকে নরিভরযোগ্য শক্তিসরবরাহ করতে সহায়তা করবে, যার ফলে নরিগমন যথেষ্ট পরিমাণে হ্রাস পাবে, বিশেষত বছরে উষ্ণতম এবং শীতলতম দিনে।

## অ্যাস্টরিয়া মোবাইল ব্যাটারিস্টোরেজে প্রকল্প

প্রস্তাবিত প্রতস্থাপন প্রকল্পের পাশাপাশি NRG বর্তমান কন এডসিনের অংশীদার হয়ে অ্যাস্টরিয়া সাইট ভিত্তিক একটি 1.5 মেগাওয়াট /4MWh মোবাইল ব্যাটারিস্টোরেজে প্রকল্প তৈরি করছে। এই মোবাইল ব্যাটারিস্টোরেজে প্রকল্পটি অ্যাস্টরিয়া ফ্যাসলিটিতে উল্লেখযোগ্য শক্তিসঞ্চার করার জন্য আমাদরে পরিকল্পনার প্রথম পদক্ষেপে। 2021 গ্রীষ্মের মধ্যে কার্যকর হওয়ার জন্য নরিধারিত “স্টোরেজ অন ডমিন্ড” প্রকল্পটি গিভর্নর কুওমোর এনার্জিভিশন প্রোগ্রামের সংস্কারের একটি অংশ। মোবাইলের ব্যাটারি ট্রলোরগুলিকে সময়ে চাপ সামলাতে সহায়তা করতে বা স্থানীয় জরুরি প্রয়োজনে সহায়তা করতে যখনে প্রয়োজন সখনে যেতে পারে।

## অ্যাস্টরিয়া - সখনে যখন প্রয়োজন

অ্যাস্টরিয়াকে সাধারণত প্রতি বছর 35 থেকে 40 বার সিস্টেমে নরিভরযোগ্যতা সংক্রান্ত কাজের জন্য প্রয়োজন হয়। তবে সংকট এবং ব্যতিক্রমী প্রয়োজনের সময়, সটিকে অবরিত রাখার ক্ষেত্রে অ্যাস্টরিয়া অপরহিা:

- COVID-19 প্রতিক্রিয়া: মহামারির সময়ে নডি ইয়রক সটির জন্য নরিভরযোগ্যতা সর্বো নশ্চিত করে NRG এর নবিদেতি কর্মীরা 24/7 প্ল্যান্টের উপলভ্যতা বজায় রাখে। এছাড়াও, NRG সম্প্রতি কুইন্সের ফার্স্ট রেসপন্ডার ও হাসপাতালের কর্মীদের সহায়তার জন্য \$25,000 প্রতশ্রুতি দিচ্ছে।
- কন এডসিন ট্রান্সফর্মার এক্সপ্লোশন (ডিসেম্বর 27-28, 2018): কন এডসিনের নকিটস্থ সাবস্টেশনের ঘটনার পর টানা 23 ঘণ্টার জন্য NRG অ্যাস্টরিয়া ইউনিটগুলি প্রেরণ করা হয়েছিল।
- পোলার ভরটেক্স (জানুয়ারি 2-29, 2014): স্থানীয় বদ্যুতের প্রয়োজনে সহায়তা করতে 291 ঘণ্টার জন্য অ্যাস্টরিয়া ইউনিটগুলি প্রেরণ করা হয়েছিল।

- হারকিনে স্যান্ডি (অক্টোবর 29 – নভেম্বর 4, 2012): স্থানীয় বদ্যুতের প্রয়োজনে সহায়তা করতে 580 ঘণ্টার জন্য অ্যাস্টরিয়া ইউনিটগুলি প্রেরণ করা হয়েছিল। শুধুমাত্র 31 অক্টোবরই, দশটি অ্যাস্টরিয়া ইউনিটের প্রতটি টানা 15-21 ঘণ্টার জন্য প্রেরণ করা হয়েছিল।
- 2003 এর নর্থইস্ট ব্ল্যাকআউট (আগস্ট 14-16, 2003): ব্ল্যাকআউটের পর তাৎক্ষণিক সংকটকালীন শক্তিসরবরাহ করতে তনি দিনের বশেধরে বিভিন্ন সময়ে 353 ঘণ্টার জন্য অ্যাস্টরিয়া ইউনিটগুলি প্রেরণ করা হয়েছিল।
- 9/11 (সেপ্টেম্বর 11-12, 2001): স্থানীয় বদ্যুতের প্রয়োজনে সহায়তা করতে 31 ঘণ্টার জন্য অ্যাস্টরিয়া ইউনিটগুলি প্রেরণ করা হয়েছিল।
- হারকিনে আইরনি (আগস্ট 26-29, 2001): স্থানীয় বদ্যুতের প্রয়োজনে সহায়তা করতে 4 দিন ধরে 22 ঘণ্টার জন্য অ্যাস্টরিয়া ইউনিটগুলি প্রেরণ করা হয়েছিল।

এই ঘটনাগুলি লোকেরা মনে রাখলেও, যেকোনো সময় স্থানীয় অতিরিক্ত শক্তির প্রয়োজন হতে পারে।



astoria.project@nrg.com

nrg.com

## **Appendix B**

### **Public Meeting Materials**

## Virtual Public Meeting Astoria Replacement Project

### Opportunity to provide input on the Astoria Replacement Project

Hosted by Astoria Gas Turbine Power LLC (a subsidiary of NRG Energy, Inc.)

Due to the COVID-19 pandemic and the Governor's Executive Order 202, the public information meeting will be held virtually. Details are below.

**Thursday, July 16, 2020, 7-9 p.m.**

To view online, visit **[www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com)**.  
Scroll to and click the Webcast link near the top and fill out the brief form.

To listen by phone toll-free, call **(877) 359-9508**, enter **ID# 1790419**

### Astoria Replacement Project Application Summary

As previously approved, the Astoria Replacement Project will replace the existing power generating units at the Astoria Facility. The Project is now being modified to reduce the size of the Facility (437 MWe vs 1040 MWe) and incorporate a state-of-the-art generating unit which requires modifications of the Facility's existing New York State Department of Environmental Conservation air and water permits. With this modification, this critical infrastructure project will:

- Reduce the total generating capability of the site while lowering air emission rates by up to 99% per hour; and
- Support New York's leading efforts to fight climate change by significantly reducing net greenhouse gas emissions with technology that will be fully convertible to zero-carbon fuel in the future.

### Information and Contacts

- Project documents can be found at **[www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com)**.
- Interested stakeholders are invited to submit questions or comments via phone, email, or regular mail through August 3, 2020 at:  
**(718) 274-5180**  
**[Astoria.project@nrg.com](mailto:Astoria.project@nrg.com)**  
or  
**Astoria Replacement Project, PO Box 7, Albany, NY 12201-0007**

### Key Virtual Meeting Details

- The meeting is July 16<sup>th</sup>, 2020, from 7-9 p.m. You can join the meeting via phone or web link:

Phone: **(877) 359-9508, Conference ID 1790419**

Web: **[www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com)**

Scroll to and click the Webcast link near the top and fill out the brief form.

# **YOU ARE INVITED TO A PUBLIC INFORMATION MEETING ABOUT THE ASTORIA REPLACEMENT PROJECT**

Astoria Gas Turbine Power LLC, a subsidiary of NRG Energy, Inc., has submitted an application to modify its previously approved project and replace existing combustion turbines at the Astoria Gas Turbine Generating Facility with a new state-of-the-art simple cycle combustion turbine. The Facility is located on a 15-acre site at 31-01 20th Ave., Astoria, Queens County, New York.

In light of the COVID-19 pandemic and the Governor's Executive Order 202, the public information meeting will be held virtually.

Date: July 16, 2020

Time: 7:00 – 9:00 pm

Webcast Link: <https://edge.media-server.com/mmc/p/dhnjtrfk>

Participant Toll-Free Dial-In Number: (877) 359-9508

Conference ID: 1790419

## **YOUR ATTENDANCE IS IMPORTANT**

- Learn more about the Project
- Ask questions and comment on the Project
- Discuss your concerns
- Learn about the environmental review process and opportunities for public comment

Attendees are encouraged to submit questions throughout the meeting and time will be set aside at the end to answer questions. Questions or comments concerning the Project also may be submitted via email, phone, or regular mail until August 3, 2020 to:

Astoria Replacement Project  
P.O. Box 7  
Albany, NY 12201-0007  
[astoria.project@nrg.com](mailto:astoria.project@nrg.com)  
(718) 274-5180

An online document repository containing Project materials has been established at [www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com).

# New York State Department of Environmental Conservation - ENB Region 2 Notices 7/1/2020

## Positive Declaration and Public Scoping

**New York County (Queens)** - Astoria Gas Turbine Power LLC (Astoria) proposes to modify its previously approved replacement project. In accordance with the June 12, 2019 Declaratory Ruling of the New York State Board on Electric Generation Siting and the Environment, Case No. 17-F-0451, the replacement project does not require a Certificate of Environmental Compatibility and Public Need under Article 10 of the Public Service Law (PSL), as it is exempt under PSL § 162(4)(d). The replacement project therefore remains subject to the requirements of the State Environmental Quality Review Act (SEQRA). The New York State Department of Environmental Conservation (NYS DEC), as SEQR lead agency, has determined that a Draft Supplemental Environmental Impact Statement (Draft SEIS) must be prepared. **Written comments on the draft scope will be accepted until July 31, 2020.**

### Project Description

The existing facility has a total generating capacity of 646 MW (nameplate rating) and currently consists of 24 dual fuel simple cycle units. (There are also 7 retired units still existing at the facility). The proposed replacement facility will consist of one quick start generator with a generating capacity of 437 MWs. The new facility will be primarily fired on natural gas but will have the capability of firing on ultra low sulfur liquid fuel as back up. Initially, the facility will maintain two of the old simple cycle units for black start capabilities until they receive approval from the New York Independent System Operator (NYISO) and Federal Energy Regulatory Commission (FERC) to install and operate a battery storage facility onsite. The project is located at 31-01 20th Avenue in Queens, New York.

### Previous SEQR Review and NYS DEC Permits

Astoria previously proposed to replace all of the units at the existing facility and was subject to a review pursuant to SEQR with the NYS DEC serving as lead agency for the coordinated review of the project. The project was the subject of a Draft Environmental Impact Statement (Accepted: April 16, 2010) and Final EIS (Accepted September 22, 2010). As lead agency, NYS DEC issued a Findings Statement (October 4, 2010) concluding that all potential environmental impacts had been minimized or mitigated to the maximum extent practicable.

All NYS DEC permits were issued at the time the Findings Statement was issued. The project was never constructed, and the existing facility continues to operate in accordance with its existing permits.



**Current SEQR Review**

Astoria seeks to modify its previously approved replacement project. In accordance with the June 12, 2019 Declaratory Ruling of the New York State Board on Electric Generation Siting and the Environment, the replacement project remains subject to the requirements of SEQRA. NYS DEC, as lead agency for the current proposed replacement project is requiring the preparation of a Draft SEIS. The draft scoping document reflects that the environmental review for the modified project will include analyses from the original Draft EIS. The Draft SEIS will include updated analyses to assess potential impacts as a result of any project differences, changes in the environmental setting, newly discovered information, or changes in circumstances related to the project.

**Document Availability and Public Participation Meeting**

The Draft EIS and Final EIS previously completed for the project are available at the Astoria new project's website [www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com). The draft scoping document is also available for review at this website.

**Astoria will be conducting a virtual Public Participation Meeting on July 16, 2020.** The meeting will provide the public an opportunity to learn about the replacement project and the environmental review process. Details for the meeting can be found at the project website. Astoria will not be accepting comments on the draft scoping document at this meeting. All comments on the draft scope are required to be submitted in writing by the identified due date.

Comments on the draft scoping document must be submitted in writing by July 31, 2020. All comments must be submitted to the following email address:

[comment.nrgastoriagas@dec.ny.gov](mailto:comment.nrgastoriagas@dec.ny.gov)

**Contact:** Christopher M. Hogan, NYS DEC - Division of Environmental Permits, 625 Broadway, 4th Floor, Albany, NY 12233-1750, Phone: (518) 402-9151, E-mail: [comment.nrgastoriagas@dec.ny.gov](mailto:comment.nrgastoriagas@dec.ny.gov).



# Astoria Replacement Project

*Public Information Meeting*

July 16, 2020

- Inform the public about proposed modifications to the previously approved Astoria Replacement Project
- Provide the status of applications to modify the Facility's existing permits
- Identify opportunities for public participation in the process including NYSDEC's supplemental review under the State Environmental Quality Review Act (SEQRA)

- Introductions
- Public Meeting Webcast Process
- Astoria Replacement Project Overview
- Status of Environmental Review and Opportunities for Public Participation
- Project Benefits
- Questions and Comments

This presentation is available at [www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com)

- Need for Virtual Public Meeting
- Live Presentation followed by interactive questions and comments:
  - For those on the phone, press \*1 on your phone and the moderator will add you to the queue
  - For those on the webcast, click the “Ask a Question” tab at the top right of your computer screen. Enter your question in the box and then hit submit.
  - Participants will be required to provide name and residential address
- Comments are welcome through August 3<sup>rd</sup>
  - By Email: [astoria.project@nrg.com](mailto:astoria.project@nrg.com)
  - By Phone: (718) 274-5180 and leave a message



# Meet the Speakers



## **Kandi S. Terry – NRG, Director of Government Affairs**

Leads government affairs for NRG's retail and generation businesses in New York and New England. Mrs. Terry earned a Masters of Science degree from Rensselaer Polytechnic Institute and has almost 25-years of government experience.

## **Tom Atkins – NRG, Vice President of Development**

Responsible for North American electric generation and energy storage development projects. Mr. Atkins earned a Bachelor of Science in Mechanical Engineering degree from Cornell University and is a licensed professional engineer in the State of New York with over 35 years of experience in the power industry.

## **Shawn Konary – NRG, Senior Director, Environmental**

Responsible for environmental permitting, policy, and regulatory matters. Mr. Konary earned a Bachelor of Science degree from the University of Massachusetts at Amherst, a Master of Business Administration from Boston University and has over 30 years of experience in the environmental and energy industry.

## **Brian McCabe – NRG, Senior Director, Development**

Responsible for generation development projects in the northeast, including energy storage. Mr. McCabe earned Bachelor of Science and Master of Business Administration degrees from Vanderbilt University and has over 20 years of experience in the energy industry.

## **Peter Valberg, Ph.D, ATS – Gradient, Principal**

Dr. Valberg is responsible for human health risk assessment and inhalation toxicology. Dr. Valberg has a Ph.D. in Physics and an M.S. in human physiology from Harvard University. He has over 30 years of experience providing air quality expertise, and is the author of more than 100 scientific articles on biological effects of environmental exposures.

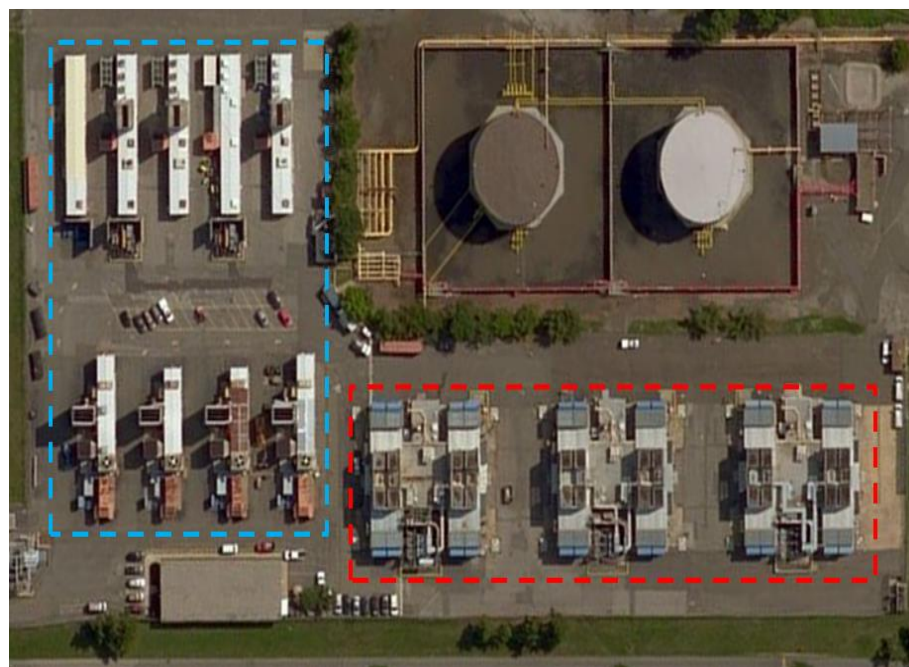
# NRG Astoria Facility Today

- The Astoria Con Ed Complex has hosted major energy infrastructure for over 100 years
- NRG purchased the 15 acre Astoria Gas Turbines site from Con Edison in 1999
- The site currently consists of:
  - 500 MW of 1970 vintage Pratt & Whitney FT4 units and
  - 144 MW of retired Westinghouse units
- The Facility provides essential reliability service to NYC (dual fuel peaking, contingency support and system restoration)

**Astoria Con Ed Complex**



**NRG Astoria Gas Turbines**



# Replacement Project (2010)

- **As approved in 2010, the Project consisted of replacing the existing generation at the site with four combined cycle units capable of generating 1,040 MW**
  - Due to market conditions, the Project was not constructed at that time





# Modified Replacement Project (2020)

- **As proposed in 2020, the Project consists of replacing the existing generation at the site with a single peaking unit capable of generating 437 MW featuring:**
  - State of the art technology offering the greatest efficiency available in its class
  - Dual fuel, fast ramping unit which can start in under ten minutes, with highly flexible operating characteristics
  - Latest emission controls (DLN 2.6e, Hot SCR and Oxidation Catalyst)
  - Black start capability initially supported by an existing unit, then transitioning to a 24 MW battery energy storage system



# Project Comparison (2010 vs 2020)



	Original Permitted Project	Proposed Modified Project
Project Size	1,040 MW	<b>437 MW</b>
Technology	Combined Cycle (Intermediate Duty)	<b>Simple Cycle (Peaking Duty)</b>
Incorporates Battery Energy Storage?	No	<b>Yes</b>
Capable of System Restoration?	No	<b>Yes</b>

## The Proposed Project Modification:

- Decreases the project size by 58%
- Modernizes the project technology
- Further reduces air emissions
- Addresses identified reliability shortfalls in NYC in a timely manner
- Incorporates Battery Energy Storage into the project design
- Minimizes the footprint of the project, allowing for future stand alone energy storage installations
- Provides system restoration capability
- Can convert to carbon-free hydrogen fuel by 2040



# Status of Current Permitting Process

- New York State Siting Board Decision – June 12, 2019
- NYSDEC Permit Modification Package submitted – April 27, 2020
  - Title V – Air Permit
  - SPDES – Water Discharge Permit
  - SEPPP – Public Participation Plan
  - SEQRA – Environmental Impact Statement
- Comment period for Draft Supplemental Environmental Impact Statement (DSEIS) Scope noticed in July 1, 2020 Environmental Notice Bulletin (ENB)
  - Comments due to NYSDEC by July 31, 2020
- Certificate of Public Convenience and Necessity Amendment to be filed with NYPSC in Q3 2020

## ■ **Maximizes Greenhouse Gas Reductions at the Minimum Cost**

- Project incorporates the most advanced and efficient equipment available in the marketplace
- Project will result in nearly 5M tons<sup>1</sup> of cumulative GHG reductions through 2035
  - Equivalent of taking 64,000 cars off the road (or 9% of all registered cars in Queens County)
- Project displaces less efficient generating units, reducing region-wide natural gas demand
- Improves air quality by reducing onsite emission rates up to 99% per hour

## ■ **Facilitates the Interconnection of Additional Renewable Resources (9,000 MW Offshore Wind, 6,000 MW Solar PV Goals)**

- *"The addition of renewable resources ... will create a more dynamic grid, where supply is heavily influenced by weather conditions. This necessitates ... adding flexible resources to balance intermittent renewables. These flexible attributes include ... fast response rates and the ability to startup and shutdown quickly and frequently."* NYISO Power Trends 2019

## ■ **Contributes to New York's energy storage goals (3,000 MW by 2030)**

## ■ **Capable of generating Zero Carbon Electricity by 2040**

- Project technology is capable of conversion to hydrogen fuel use

<sup>1</sup> Source: Navigant Consulting report; GHG Impacts of Astoria Replacement Project. April 2020.

## ■ **Economic Benefit**

- Over 500 jobs and \$156 million in economic benefits to the State of New York during the construction period
- Over 70 jobs and \$170 million in economic benefits to the State of New York from operations and maintenance spending through 2040
- Near term investment of over \$350 million of private capital in New York state

## ■ **Consumer Benefits**

- Reduces the cost of electricity for New York consumers through energy and capacity cost savings in the NYC load zone
- Project does not require any subsidy from NY ratepayers or taxpayers

# Opportunities for Further Public Participation



## Supplemental Environmental Impact Statement Scoping Process

- All comments must be submitted to the NYSDEC by July 31, 2020 via the following email address: [comment.nrgastoriagas@dec.ny.gov](mailto:comment.nrgastoriagas@dec.ny.gov)
- NYSDEC Contact for the Project:

Christopher M. Hogan  
NYSDEC - Division of Environmental Permits  
625 Broadway - 4th Floor  
Albany, NY 12233-1750  
Phone: (518) 402-9151  
E-mail: [chris.hogan@dec.ny.gov](mailto:chris.hogan@dec.ny.gov)

Additional opportunities for public comment will occur during the permit process

---

Questions or comments may be provided to the Project Applicant via phone, email or regular mail through August 3, 2020 and will be addressed during the SEPPP process

- Phone: (718) 274-5180
- Email: [astoria.project@nrg.com](mailto:astoria.project@nrg.com)
- Mail: Astoria Replacement Project, PO Box 7, Albany, NY 12201-0007

*More information can be found at:*  
[www.cleanerpowerforastoria.com](http://www.cleanerpowerforastoria.com)

## End of Presentation

---

Participants may ask questions or provide comments by:

- **Phone:** Press \*1 to get added to the queue
- **Webcast:** Click the “Ask a Question” tab at the top right of your computer screen. Enter your question in the box and then hit submit.
- **Email:** [astoria.project@nrg.com](mailto:astoria.project@nrg.com)

## **Summary of the Virtual Public Meeting for the Astoria Replacement Project**

**Date: July 16, 2020 from 7:00 – 9:00pm EST**

### **1.1 Background**

On July 16, 2020, Astoria Gas Turbine Power LLC and representatives of NRG Energy, Inc. hosted an online public meeting to discuss the Astoria Replacement Project (“Project”). The meeting was well attended by ninety participants via an internet Webex connection included on the project’s website and another twenty-eight participants by telephone. The participants included representatives from the environmental justice community, environmental advocacy groups, government employees, community organizations, local residents, labor organizations and plant employees. Astoria provided an overview of the project, its benefits and the current permitting process status and concluded the presentation by inviting participants to provide comments to the NYSDEC on the draft scope for the supplemental environmental impact statement, encouraged future questions and comments and urged viewers to visit the website to learn more, and to stay posted for future updates. Astoria also informed attendees that the project website will continue to be updated with additional project information.

During the live questions and comments period, a significant number of substantive questions, concerns and supporting remarks were offered by participants. The substantive questions, comments and how Astoria addressed them are summarized below.

- Several participants commented on power system reliability given the increased demand for energy in the local Astoria load pocket. Specifically, one commenter remarked how the need for energy has evolved in Queens due to the coronavirus pandemic and argued that projects such as this provide support to both businesses and residents as they confront increased energy demands.
- There were several questions on the Project’s consistency with the Climate Leadership and Community Protection Act (“CLCPA”). Astoria noted the Project would result in a significant reduction in total system greenhouse gas emissions. In addition, the Project supports the integration of substantial new intermittent renewable resources (i.e. wind and solar) in support of the CLCPA’s targets for renewable energy. Astoria also noted that the project will use a highly efficient, state-of-the-art technology which is capable of using zero carbon hydrogen fuel which would allow operation of the project beyond 2040.
- There were several questions and comments related to renewable energy alternatives in combination with energy storage to meet demand – the response noted that although Astoria believes battery storage can play a significant role going forward, the technology is not at a stage where it can fully replace peaking projects. Astoria referenced a study produced by E3 in July 2019 in conjunction with the Department of Public Service, NYSERDA, LIPA, NYISO, NYSDEC and Con Edison which analyzed the potential for energy storage to repower or replace peaking units in New York State. The study concluded, even assuming 8-hour duration battery storage technology, only 11% of existing peaker plants could be replaced. Additionally, Astoria explained that the site of the proposed facility is too small for wind or solar, so replacing the existing units with meaningful amounts of wind or solar power is not technically feasible either.

The public comment period closed on August 3, 2020, and no additional questions were received. The project received three separate letters of support from the New York State and Greater New York Laborers-Employers Cooperation and Education Trusts, the Building and Construction Trades Council of Greater New York & Vicinity, and a member of the Utility Workers of America Local 1-2.