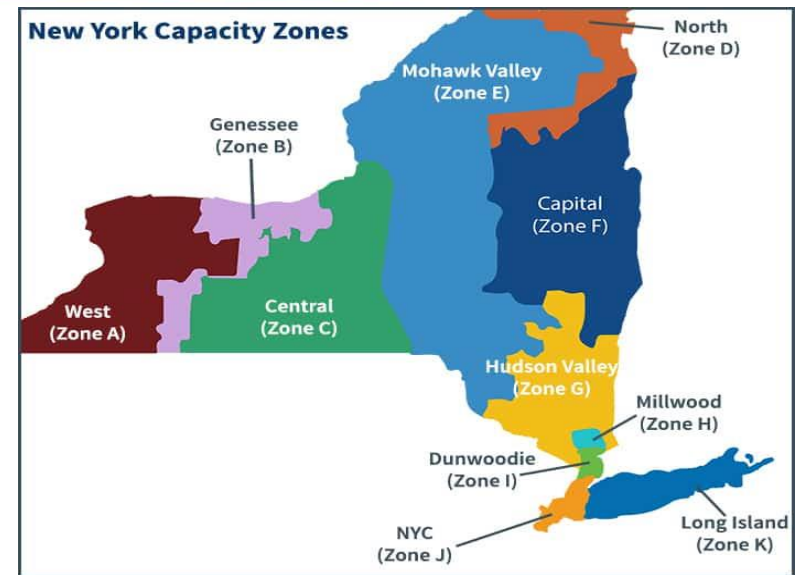




Danskammer Power to Gas Vision

May 2021

- 🔥 505 megawatt (“MW”) facility built in 1952.
- 🔥 Previously operated as a coal plant but was converted to gas in the last decade.
- 🔥 Serves as a NYISO reliability and capacity resource



Operational Overview

Nameplate Capacity:	~505 MW <i>Unit 1: 69MW; Unit 2: 67MW; Unit 3: 140MW; Unit 4: 229MW</i>
Primary / Secondary Fuel:	Natural Gas – All Units / No.6 Fuel Oil – Units 1 and 2
Net Plant Heat Rate Range:	9,900 to 11,600 Btu / kWh
Turbine Manufacturer:	General Electric
Turbine Technology:	Steam
Plant Configuration:	4 x 4 Boilers on Steam Turbines



- 🔥 Building a new 600 MW state of the art combined cycle generation facility.
- 🔥 Repurposing the existing site and infrastructure – reducing time, cost and environmental footprint
- 🔥 Will support New York’s renewable goals and power more than 500,000 homes and businesses



New Facility Characteristics

Name Plate Capacity:	600 MW
Turbine:	Mitsubishi 501JAC
Heat Rate:	~6,303 to 6,754 Btu / kWh
Gas Interconnection:	Central Hudson Local Distribution System
Electrical Interconnection	115kV Central Hudson Transmission System
Configuration	1-on-1 Combined Cycle



-  Mitsubishi JAC Technology capable of running on 30% hydrogen as installed
-  Minimal retrofits needed to convert to 100% hydrogen

Phase
One



Phase
Two



Phase
Three

Years 2023-2030*

Year 2030*

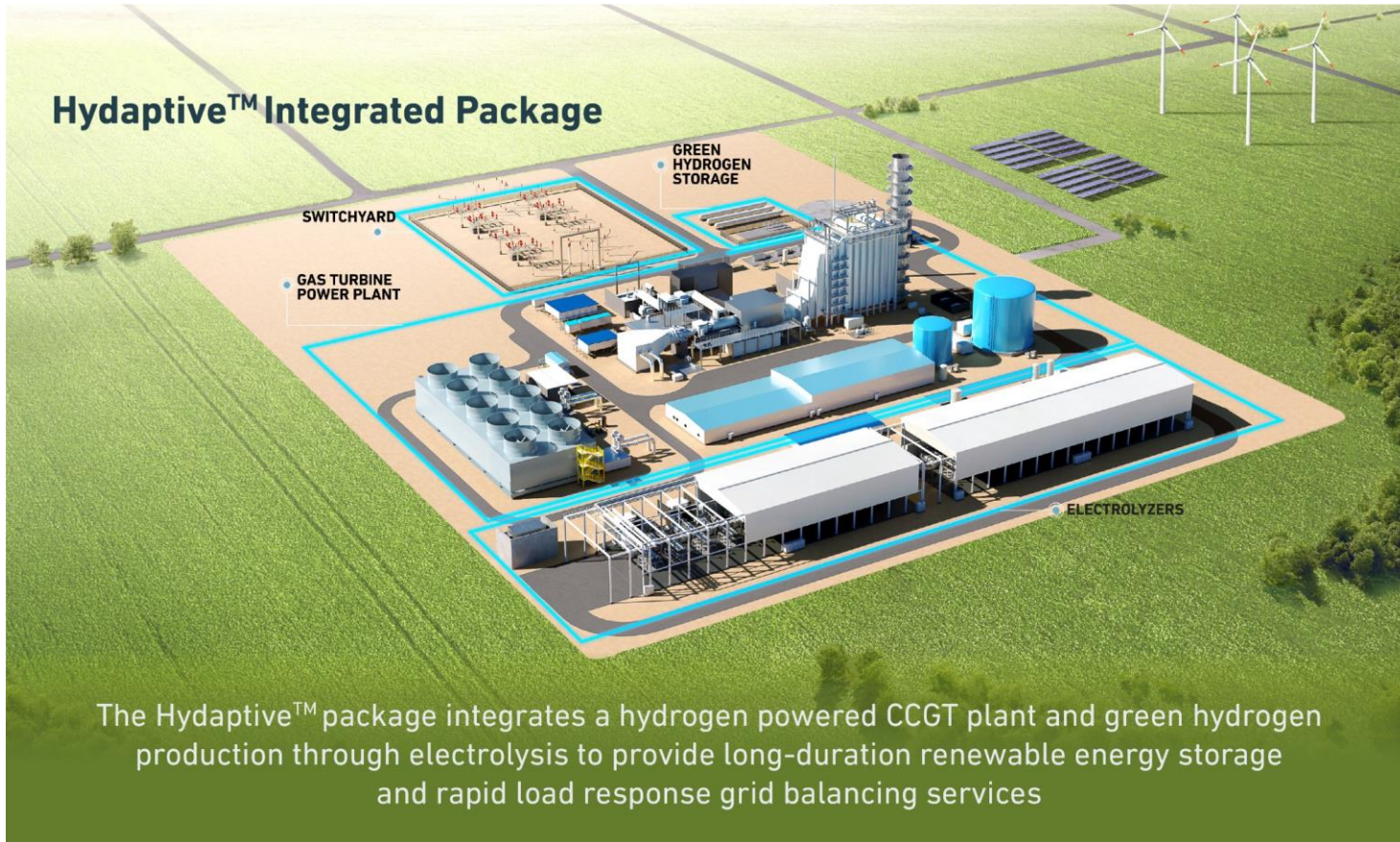
Year 2040*

- Significantly reduce emissions
- Stop using Hudson River water
- Reduce NY electric bills

- Transition to 30% green hydrogen power

- Transition to 100% green hydrogen power

*years are approximations



Goals: To store and distribute hydrogen to users and feed turbines for power generation

Danskammer's Commitment to Hydrogen:

- ⚡ Joined the Advisory Board for the **Institute of Gas, Innovation and Technology** at SUNY Stonybrook
- ⚡ Create the **Danskammer Hydrogen Innovation Center** pilot project involving 11-22 MW of hydrogen electrolyzers
- ⚡ Formed the **Green Hydrogen Alliance** with industry partners to promote hydrogen development: www.greenhydrogenNY.com

Danskammer is working to:

- ⚡ Secure low-cost renewable contracts
- ⚡ Find optimal locations for electrolyzer siting
- ⚡ Establish relationships with pipeline companies in an effort to involve them in R&D efforts on transportation of hydrogen
- ⚡ Advocate for policies to accelerate use of green hydrogen at state and federal level

Establishing green hydrogen as a zero-carbon fuel source requires examination of the following:

- 🔥 Sourcing renewable electricity
- 🔥 Curtailment and resulting economic challenges of transmission congestion
- 🔥 Transporting green hydrogen through the existing natural gas pipeline system
- 🔥 Solving local green hydrogen storage challenges
- 🔥 Stimulating market development though identifying suitable purchasers
 - Industrial
 - Transportation
- 🔥 The effect of hydrogen on end-users, especially residential customers



- 🔥 Qualification of green hydrogen as a fuel-alternative and zero-carbon fuel
- 🔥 Mandating a green hydrogen incentive and financing program through RECs, project capital support, or a carbon tax
- 🔥 Expediting regulatory approval for use of green hydrogen in existing pipeline infrastructure
- 🔥 Accelerating the transition to zero-emission trucks and buses through emission standards
- 🔥 Mandating gas utilities to blend a minimum and safe level of green hydrogen



QUESTIONS?