

# CHPE

---

CHAMPLAIN HUDSON  
POWER EXPRESS

---



**REAL. CLEAN. POWER.**

See how we're ready to power New York into the future.



CHAMPLAIN HUDSON POWER EXPRESS

# A RENEWABLE ENERGY SOLUTION FOR NEW YORK CITY



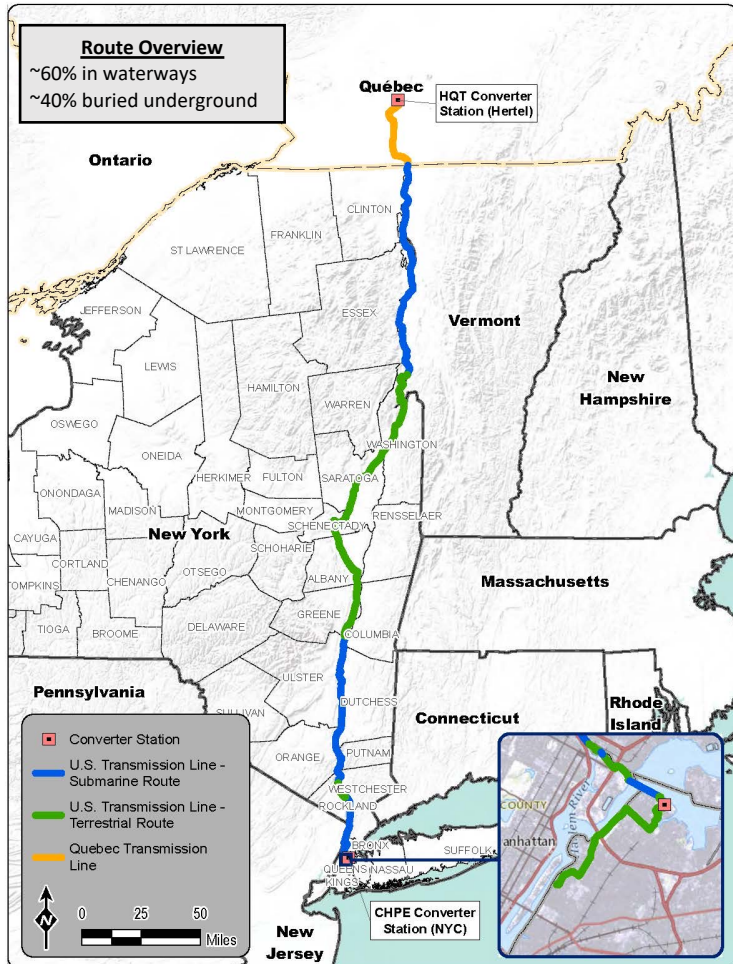
*National Association of  
State Energy Officials*

2024 ENERGY POLICY OUTLOOK CONFERENCE





# Champlain Hudson Power Express (“CHPE”) – Background



CHPE LLC is supported by world class suppliers, engineers, and energy infrastructure builders, and backed by Blackstone (NYSE: BX), one of the world's leading alternative asset managers.

## Project Overview

- 1,250 MW fully buried HVDC transmission project
- Delivering 10.4 TWh/yr. of new clean energy (enough to power +1MM homes)
- Construction commenced Q4 2022

## Business Model

- Merchant transmission project selected by NYSERDA through a competitive RFP process to transport Canadian renewable energy directly into NYC
- Host municipalities in New York will receive ~\$1.4 billion in new tax revenue over the first 25 years of the project, benefiting 73 municipalities and 59 school districts

## Regulatory & Community Support

- All major permits received (Article VII, Presidential Permit, Army Corps Permit)
- Widespread support (environmental, union, business, host communities)
- Strong local support as evidenced by 36 municipalities passing resolutions of support for the project

## Environmental & Economic Benefits, Energy Resiliency

- Estimated to decrease carbon emissions by ~37 MM metric tons over the first 15 years and reduce harmful local air pollutants by ~20%<sup>(1)</sup>
- Significant economic benefits in New York – project will utilize organized labor and is estimated to create over 1,400 direct jobs during construction and an additional +3,000 secondary jobs<sup>(2)</sup>
- Buried infrastructure will make New York's aging energy grid safer, more resilient, and more reliable in climate change related events
- First conversion of fossil generating site to clean energy site in Astoria, Queens

(1) Equivalent to removing 44% of passenger vehicles from New York City streets.

(2) Source: PA Consulting.

# Buried Transmission vs. Overhead Transmission


**CHPE's buried, resilient design mitigates damage from extreme weather events where overhead transmission lines are more susceptible to damage causing large scale power outages.**

## Here is how CHPE will help:

- CHPE's Canadian hydropower source is geographically distinct from NYC and neighboring states and less likely to experience similar weather conditions at the same time as NYC
- Hydropower from the HQ system would be available on demand around-the-clock, providing clean energy to back up other renewables
- CHPE will be buried, safe, and resilient, and will have blackstart capabilities ensuring firming power is available within minutes of any power shortage allowing for lights, air conditioners, and other vital resources to stay powered

### All of New Orleans without power after Hurricane Ida leaves 'catastrophic transmission damage'

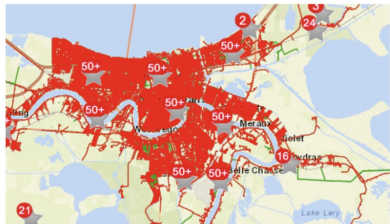
BY AMIE JUST | STAFF WRITER  
AUG 29, 2021 · 7:15 PM



As the sky clears after the departure of Hurricane Ida, New Orleans remains mostly without power except for those with generator power seen behind the darkened Caesars Superdome Monday, Aug. 30, 2021. (Photo by Max Becherer, NOLA.com, The Times-Picayune | The New Orleans Advocate)

A slow-moving Hurricane Ida has left all of Orleans Parish customers without power due to "catastrophic transmission damage," according to Entergy New Orleans.

The intense storm had caused all eight transmission lines into the New Orleans area to go down, spokesman Brandon Scardigli said in an emailed statement. That created a load imbalance that knocked all power generation in the region offline, Scardigli said.



Few specks of green remain on Entergy's outage map of the greater metro of New Orleans as of 7:15 p.m. Sunday. (Screenshot from Entergy's website.)

### THE WALL STREET JOURNAL

#### California Blackouts a Warning for States Ramping Up Green Power

State has struggled to keep lights on during heat wave that has exposed its difficulties matching power demand with supply

By Katherine Blum  
Aug. 17, 2020 7:28 pm ET

California's grid operator called twice for emergency outages over the weekend due to inadequate power supplies. Power lines in Carlsbad on Monday.

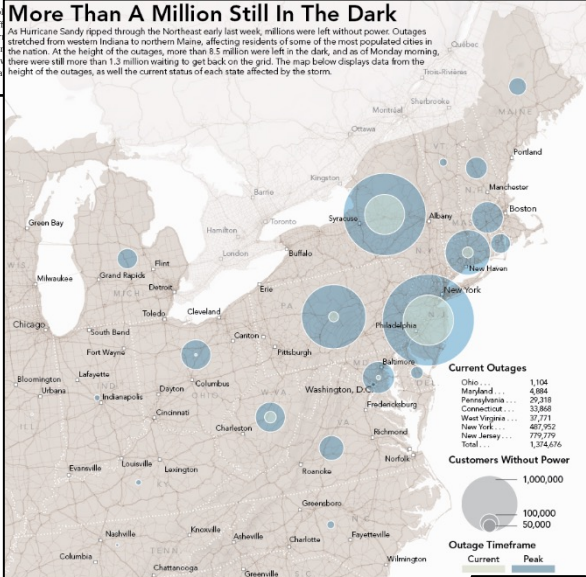
The state's grid operator called twice for emergency outages over the weekend due to inadequate power supplies, in part because demand peaked as solar production began its evening decline. California has been relying far more heavily on natural-gas-fired power plants, which, unlike wind and solar farms, aren't dependent on the weather to produce energy.

Gov. Gavin Newsom criticized the state's grid operator and utility regulator in a letter Monday, saying that their "failure to predict these shortages is unacceptable particularly given our state's work to combat climate change."

"These blackouts, which occurred without prior warning or enough time for preparation, are unacceptable and unbefitting of the nation's largest and most innovative state," the Democratic governor said, adding that he was notified just "moments before" they started. "Grid operators were caught flat-footed," he said.

### More Than A Million Still In The Dark

As Hurricane Sandy ripped through the Northeast early last week, millions went left without power. Outages stretched from western Indiana to northern Maine, affecting residents of some of the most populated cities in the nation. At the height of the outages, more than 8.5 million were left in the dark, and as of Monday morning, that number was still more than 1.3 million waiting to get back on the grid. The map below displays data from the height of the outages, as well the current status of each state affected by the storm.



State	Current Outages
Ohio	1,104
Maryland	4,884
Pennsylvania	29,318
Connecticut	33,868
West Virginia	37,771
New York	487,912
New Jersey	779,779
Total	1,374,626

**Customers Without Power**

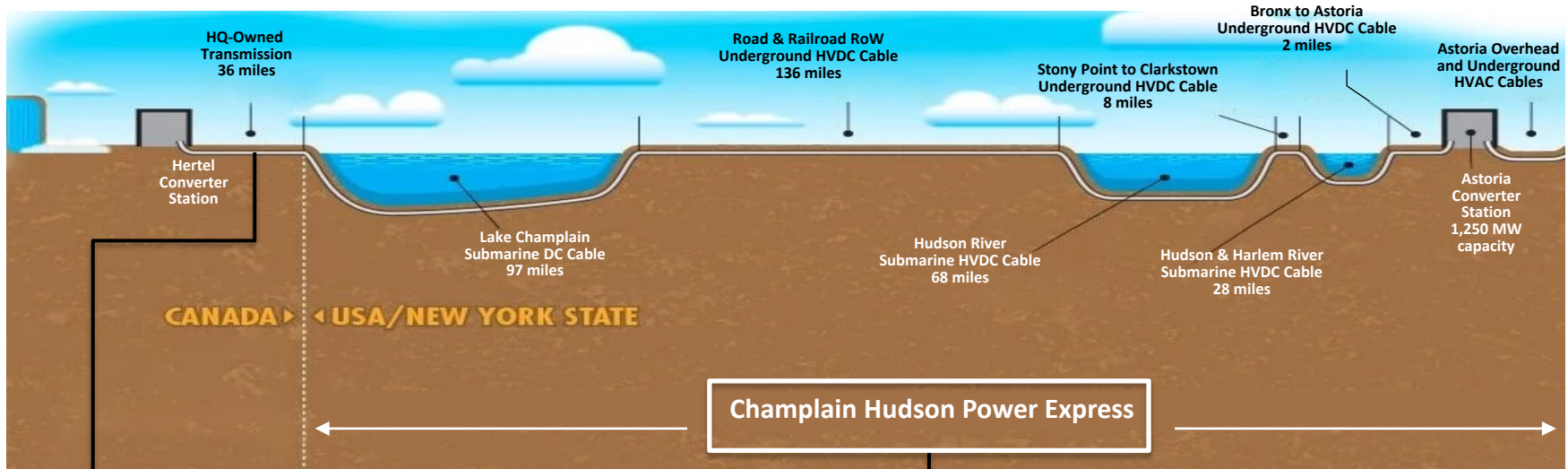
- 1,000,000
- 100,000
- 50,000

**Outage Timeframe**

- Current
- Peak

Source: U.S. Department of Energy, "Power Outage Data as of 9:30am, November 5, 2013."

## “The Most Powerful Project You’ll Never See”



### The Hertel–New York Interconnection Project

- Located entirely within Canada, originating in La Prairie, Québec and traveling underground/underwater approximately 36 miles (58 km) to the New York-Canadian border
- Will be owned, operated and maintained by Hydro-Québec

### The Champlain Hudson Power Express (“CHPE”)

- The U.S. portion of the transmission system, traveling underground/underwater ~339 miles (545 km) from the Canadian border to Astoria, Queens
- Will be owned, operated and maintained by CHPE LLC





# The Importance of Stakeholder Engagement in the Private Sector

## Then

### THE WALL STREET JOURNAL Power Lines Drawn

Energy Plan Creates Unusual Alliances

By Joseph De Avilla  
June 18, 2012 10:12 pm ET

A proposal to build a power line underneath portions of the Hudson River and Lake Champlain to deliver electricity to New York City has created an unusual alliance: the Sierra Club, energy companies and a bipartisan group of lawmakers.

They have emerged as a powerful opposing force to the Champlain Hudson Power Express, a \$2 billion, 333-mile power line that would connect the city to power generated by Canadian wind farms and hydroelectric dams.

The Sierra Club opposes the project because, the group said, it does nothing to improve New York's existing power infrastructure. That stand puts the club on the same side as Entergy Nuclear, the operator of Indian Point Energy Center, a nuclear power plant the Sierra Club has advocated closing.

"Being on the same side of Entergy, I think we have different interests as stakeholders," said Annie Wilson, chairwoman of the group's New York City energy committee.

Entergy spokesman Jim Streets said the company opposed the Hudson power line because "the state needs to upgrade its transmission grid. The problem with this project is that it doesn't really do that."

Meanwhile, lawmakers have co-sponsored a bill to block the transfer of power originating in another country into New York, essentially prohibiting the Hudson power line. The lawmakers include state Sen. George Maziarz, a Buffalo-area Republican, Assemblyman Andrew Hewes, a Queens Democrat, and others who don't normally team up on legislation.

### FINANCIAL POST

### Americans aren't just blocking our oil pipelines, now they're fighting Hydro-Quebec's clean power lines

Renewable energy powerhouse's plan to light up U.S. northeast encounters opposition from local groups, fossil fuel rivals

Gabriel Friedman  
Sep 29, 2021 • October 1, 2021 • 8 minute read • 151 Comments

But just as oil and gas companies have encountered opposition to nearly every new pipeline, Hydro-Québec is finding resistance as it seeks to expand its pathways into major export markets, which are all in the U.S. northeast. Indeed, some fossil fuel companies that would be displaced by Hydro-Québec are fighting to block the construction of its new transmission lines.

"Linear projects — be it a transmission line or a pipeline or highway or whatever — there's always a certain amount of public opposition," Gary Sutherland, director of strategic affairs and stakeholder relations for Hydro-Québec, told the Financial Post, "which is a good thing because it makes the project developer ask the right questions."

### Patch Peekskill-Cortlandt, NY

### David vs Goliath – Champlain Hudson Power Express: A Bad Idea

Risk Differences Neighbor  
Posted Thu, Nov 21, 2013 at 12:14 pm ET

The Stony Point hearing attracted about 250 people, the vast majority of whom strongly oppose the project. This included community members whose property would be subject to eminent domain, Sons of the American Revolution who asked to stop the Canadian line from unearthing their ancestors' graves, and other leaders who oppose the project.

The environmental group Scenic Hudson commented that it supported the high voltage transmission line only after CHPE created a \$17 million settlement fund and agreed to move the route from certain sensitive aquatic areas in the Hudson River. This prompted heckling from the crowd calling for the line to "stay in the river" and chants of "people over fish." However, the Sierra Club Atlantic Chapter responded that the line should not be built altogether citing the destruction of natural rivers in Canada to power the line and sacrificing in-state renewable energy solutions.

### ippny INDEPENDENT POWER PRODUCERS OF NEW YORK

### Proposed Champlain Hudson Power Line is a Bad Deal for New York State

IPPNY's Brief and Expert Testimony in PSC Hearing Show  
Power Line Costs Significantly Trump its Benefits

Albany, NY, 9/7/12 - The Independent Power Producers of New York, Inc. (IPPNY) today filed with the New York State Public Service Commission (PSC) its final brief in opposition to Champlain Hudson Power Express, Inc.'s (CHPE) application for a Certificate of Environmental Compatibility and Public Need to construct a proposed transmission line from Canada to New York City. During the Project's Article VII Transmission Line Siting proceeding at the PSC, IPPNY has demonstrated critical pitfalls concerning the economics of the Project and the associated risk to New York State residents and businesses. New York's energy marketplace simply cannot provide sufficient revenues to support the unneeded and uneconomic transmission line, meaning the Project would require significant subsidies to be built and become operational.

## Now

### Tribal, Municipal, Elected Official & Public Support

- ✓ Letter of support from Mohawk Council of Kahnawake in Canada, a project partner
- ✓ 38 resolutions of municipal support
- ✓ 18 letters of support from elected officials across New York State
- ✓ 3000+ letters of support from members of the public who care deeply about the environment and New York's future

3000+ statements of support

### Organized Labor

- ✓ 8 letters of support from leadership of NYS labor unions including: IBEW, NYS Laborers, Operating Engineers, ELEC & Building and Trades
- ✓ 700+ letters from individual members of NY Laborers
- ✓ 30+ letters from members of IBEW
- ✓ 50+ letters from members of Operating Engineers

750+ expressions of support from organized labor

### Business & Real Estate Advocacy Organizations

- ✓ Support from NYC real estate organizations: REBNY, Brookfield, SL Green, Tishman Speyer, RXR & Vornado
- ✓ 11 letters from NYS Chambers of Commerce & the Business Council of New York State
- ✓ 13 letters of support from NYS county industrial development agencies

25+ letters of support from businesses and real estate

### Academics & Environmental Organizations

- ✓ 16 letters from organizations advancing environmental awareness and support in NYS including: NYLCV, Citizens Campaign for the Environment, Nature Conservancy NY, Urban Green Council & Climate Reality Project
- ✓ 9 letters from academics at, and representatives from, prestigious New York higher-education institutions such as, Columbia, NYU Law & SUNY Plattsburgh

25 letters of support from advocacy organizations and higher education



Letters of Support received from leadership of NYS labor unions including: Laborers, IBEW, NYS, Operating Engineers, ELEC & Building and Construction Trades Council.

# NYSERDA Commercial Contracts Approved by NYSDPS

On April 14, 2022 the NYSERDA Tier 4 contract with Hydro-Quebec was approved by the NYS Public Service Commission – a critical authorization required for CHPE to achieve Financial Close in October, 2022 and commence construction in November, 2022.

- ✓ Fully permitted – allows the project to begin reducing harmful emissions and pollutants as soon as 2026
- ✓ Significant numbers of jobs for local communities and union labor organizations
- ✓ Large positive impacts on public health
- ✓ Buried infrastructure respecting communities and protecting against storm related power outages
- ✓ Renewable hydroelectric power to replace harmful fossil fuel burning while running 24 hours a day / 7 days a week
- ✓ Payments of \$1.4 billion in taxes to communities and school districts along the route during the first 25 years of operations, including NYC



# CHPE Groundbreaking Ceremonies in Whitehall and Astoria, NY



**Governor Kathy Hochul** ✓  
@GovKathyHochul

Today New York took a huge step towards meeting our nation-leading clean energy goals!

The @CHPEexpress transmission line is a transformative project that will power more than one million homes, create nearly 1,400 green jobs, & help build a healthier future for all New Yorkers.



A wide-angle photograph of the New York City skyline as seen from the water. The sky is a clear, pale blue, and the water in the foreground is a deep blue with shimmering reflections of the sun. The skyline is composed of numerous skyscrapers of varying heights and architectural styles, with the Freedom Tower being the most prominent on the left. A few small boats are visible on the water.

Robert G. Harrison, P.E.  
Senior Vice President, Engineering  
TDI-USA Holdings LLC | CHPE LLC  
623 Fifth Ave. 20<sup>th</sup> Floor | New York, NY 10022  
T: 646-937-4140  
bob.harrison@transmissiondevelopers.com  
[www.chpexpress.com](http://www.chpexpress.com)