Energy Central



How much will the CLCPA cost rate payers?

New York's utility customers are already financially supporting clean energy goals through surcharges on energy bills. Currently New York has committed \$22.9 billion toward meeting these goals from 2006 through 2025. In 2020, Central Hudson customers contributed \$69 million, or 10 percent of the average residential bill to support New York State's clean energy initiatives.

These costs are predicted to grow substantially, with billions more needed for the development of offshore wind and battery storage. Additional costs will result from expanding utility infrastructure to interconnect renewable generating systems and meeting the energy needs associated with heating electrification and electric transportation. Also, individual residents and business owners would be required to spend thousands or more on building upgrades.

Central Hudson believes that New Yorkers should be aware of the costs of the energy transition, and supports an expedited cost analysis as required under the CLCPA.

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Experts Stress the Importance of Electric Grid Reliability to Climate Action Council



Ctate policymakers tasked with Jimplementing New York's Climate Leadership and Community Protection Act (CLCPA) recently hosted a public forum on the importance of maintaining electric grid reliability during the clean energy transition. Presenters at the forum featured subject matter experts from the New York State Reliability Council, The New York Independent System Operator (NYISO), the New York State Public Service Commission and Central Hudson Vice President of Electric Engineering and Operations Ryan Hawthorne, who presented on behalf of the Utility Consultation Group (UCG).

The utility group focused on three key principles:

Grid Reliability is critical and

- cannot be compromised;
- Energy systems are complex and require extensive longterm planning; and
- Keeping all technology options on the table

The UCG is a consortium of New York's gas and electric utilities focused on providing expertise and perspective to the 22-member Climate Action Council as they work to develop the scoping plan, or roadmap to achieving the CLCPA's goals. Among those goals are a 40 percent reduction of greenhouse gas emissions by 2030, an 85 percent reduction by 2050 and zero emission power generation by 2040.

"We start and end with our

SEE RELIABILITY ON BACK PAGE

Reliability: A mix of generation sources is paramount

customers and we know they need energy service that is reliable and always there when called upon," said Hawthorne, who presented for the UCG together with Margaret Janzen, Director of Regulatory Strategy at National Grid. "That means on the coldest winter nights, or the hottest summer days, the lights and heating or cooling systems remain on.

"We've seen what happens when reliability falls short in states like Texas and California: Millions are left in the dark, or worse, succumb to exposure to extreme temperatures. We can all agree that this cannot happen in New York," Hawthorne added.

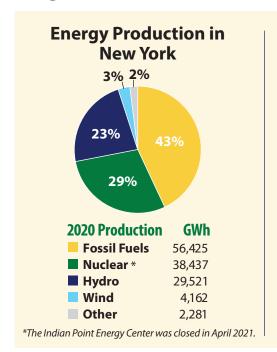
The need for reliable service will only increase as more components of daily life are electrified. This includes our transportation and building heating systems, which together approximately 60 percent of the greenhouse gas emissions in New York State.

"With the state's clean energy goals in place, the clean energy transition will require careful fore-thought and meticulous planning," Hawthorne said. "Utilities now forecast over 1000x more data points than we had only a few years ago, forecasting hourly loading and generation for each one of the thousands of feeders in NY. Forecasts now include Electric Vehicle Chargers, Electric Heating, Solar, Batteries, and more."

Grid Planning

The CLCPA calls for 70 percent of power generation in New York to come from distributed renewable sources like solar, offshore wind and hydro by 2030. Currently less than a quarter of generation comes from these sources. This transition from a power grid predicated on one-way flow of energy from larger, centralized stations, to a system that incorporates two-way flow from a rapidly growing network of distributed energy resources requires complex and in-depth planning from utilities.

As distributed renewables seek to connect to the electric grid, each system is studied extensively. This



review not only examines the utility's ability to accommodate the renewable generator, but also the potential effects this interconnection may have on electric service to the existing homes and buildings surrounding it.

"For New York to achieve its clean energy targets, collaboration with all stakeholders is a critical necessity," Hawthorne said. "The utilities serve an important role in this transition as the operators of the electric and gas systems and we value the partnerships and perspectives across the spectrum of all stakeholders."

Keeping All Energy Options Open

New York's utilities welcome the challenge of redesigning the grid to innovate the planning process for clean energy and to enhance grid reliability; however designing a transition plan that will lead to success requires an approach that includes a wide array of energy technologies and resources.

Renewable sources like solar and wind are clean, but intermittent, dependent on sunlight and wind. Today's battery storage systems offer only several hours of power, and then must be recharged. In other words, there is a gap between today's technology and their ability to meet environmental goals.

The CLCPA's Zero-Emission Electric Sector Targets



RENEWABLES:

70% by 2030

70% of power generation in New York to come from renewables by 2030.

Over time as reliance on renewable resources increases, concerns over intermittency highlight the need for dispatchable generation that can quickly fill energy voids when renewable generators such as wind and solar are not producing.

In the 2021 Power Trends Report, The New York Independent System Operator (NYISO) states: "To maintain reliability, bulk power system operators will require a full portfolio of resources that can be dispatched in response to any change in real-time operating conditions. The ability to dispatch resources to reliably meet everchanging grid conditions and serve New York's electric consumers will always be paramount."

An "all-of-the-above" approach that's inclusive of emerging technologies today is a vital part of achieving New York's ambitious targets. This includes investing in research and development efforts with respect to long duration battery technology, renewable natural gas, advanced green hydrogen and more over the next two decades.

The UCG continues to meet with members of the CAC in an effort to discuss the best path forward in New York's clean energy transition. The CAC is tasked with providing a draft scoping plan that will inform the State Energy Planning Board's adoption of a state energy plan by the end of this year. **