



the eco-action report

Joule Community Power

2023 REVIEW

 **JOULE**
COMMUNITY POWER
a division of Joule Assets, Inc.

OUR VISION

Clean Energy For All

**JOULE COMMUNITY POWER IS HELPING
COMMUNITIES ACCESS CLEANER ELECTRICITY
ON THEIR OWN TERMS.**

This report covers Joule Community Power’s footprint and impact in 2023 and a 2024 outlook. The report includes a look at who we serve, our performance in terms of environmental accomplishments and cost for program participants. It also provides updates on the clean energy projects we’re helping communities develop on local land.

PERFORMANCE OVERVIEW

800,000

New Yorkers
represented

346 Million

kWh of renewable
electricity consumed
in 2023

89%

of our participants chose
50% or 100% NY
renewable energy

Data as of December 31 2023.

Participation



JOULE SERVES 57 MUNICIPALITIES, HELPING THEM ACHIEVE THEIR ENERGY GOALS, REDUCE THEIR CARBON FOOTPRINT AND STRENGTHEN CONSUMER PROTECTIONS.

24 communities secure new electricity supply contracts for their residents and small businesses

16
communities are repeat clients

8
communities join for the first time

Returning Communities:

Cities of Rochester, Canandaigua, Poughkeepsie; Towns of Clarkstown, Geneva, Marletown, New Paltz, Orangetown, Philipstown, Red Hook, and Saugerties; and Villages of Cold Spring, Haverstraw, New Paltz, Nyack, and Upper Nyack

New Communities:

Towns of Henrietta, Highlands, Gardiner, and Rhinebeck; Villages of Grand View-on-Hudson, Saugerties, Nelsonville, and Highland Falls

2023

A YEAR OF GROWTH AND RENEWAL

A growing number of communities embrace price stability and renewable electricity. Community-driven, clean energy programs (community choice aggregation - CCA) continue to gain momentum across NY State. This year, 24 Joule communities have either re-committed to bringing renewable electricity to their residents while controlling costs, or have joined for the first time. 16 are repeat clients, 8 of the communities are new to the program.

CCA or Community Choice programs, enable municipalities to provide their residents with more favorable deals on electricity by forming buying groups for electricity supply. The program model increases consumer protections, helps provide price stability, and enables entire communities to switch to renewable electricity. By so doing, community choice becomes a powerful tool for communities looking to protect residents from market volatility and achieve their sustainability goals.



2024 OUTLOOK

22 NEW YORK COMMUNITIES IN SEARCH OF RENEWABLE ELECTRICITY

Joule is issuing bids for bulk purchases of renewable electricity supply on behalf of 22 municipalities. This includes the Town of Southampton – working to enable Long Island residents to have a choice in their electricity provider, for the first time.

ILLINOIS MUNICIPALITIES LOOKING TO SPARK THE DEVELOPMENT OF NEW RENEWABLES THROUGH AGGREGATION

A group of communities in Illinois are looking to spark the development of new renewables to broaden the impact of existing aggregation programs. Joule is assessing opportunities that will help maximize local benefit, including for low-income communities.

PENNSYLVANIA CONSIDERS ESTABLISHING COMMUNITY CHOICE AGGREGATION

Joule is working closely with the CCA for PA Committee, and a group of five pioneering boroughs to launch the Commonwealth's first CCA programs. This is with the goal of inspiring significant new renewable power development over the next three years.

Environmental Impacts

The following data represents environmental impacts of Joule Community Power's community choice aggregation (CCA) programs for 2023.



JOULE IS MAKING IT EASY FOR COMMUNITIES TO SWITCH TO RENEWABLE ELECTRICITY AT SCALE.

Community choice is one of the most effective ways to enable large groups of people to switch to renewables in one go.

Municipal leaders across NY State have stepped up to the challenge of moving away from fossil fuels and are using Joule's community choice programs to provide their residents and businesses with renewable electricity. 89% of Joule's community choice program participants have switched to an electricity supply option providing either 100% or 50%* NY renewable electricity, allowing our communities to reach sustainability targets and reduce their carbon footprint.

In 2024, Joule is scheduled to issue bids for more than 1.1 million MWh of renewable electricity on behalf of our communities.

346 MILLION KWH RENEWABLE ELECTRICITY CONSUMED

Participants have used over 346 million kWh of 100% renewable electricity sourced right here in New York State.

38,902 METRIC TONS CO₂e AVOIDED

Participants helped avoid over 38,900 metric tons of carbon dioxide equivalent emissions from what would have been produced using the local utilities' default supply.

4,377,405 GALLONS OF GASOLINE AVOIDED

CO₂ emissions avoided from Joule's program participants is the equivalent of avoiding the consumption of 4,377,405 gallons of gasoline.

Reference: [EPA Power Profiler Emissions Tool 2020](#)

* The remaining 50% is matched by renewable energy credits sourced from national renewable electricity sources. The 50% NY renewable option is not counted as 100% renewable by New York State. In 2023, 67% of the electricity purchased by Joule program participants came from 100% NY renewable resources.

Rate Performance

Joule's electricity supply rates compared to the utilities' rates over time



OVERALL CONSUMER SAVINGS

Since Joule's first program launched in 2019, the average participating household has saved around a total of \$80 by purchasing their electricity through the program, compared to if they had been paying the utility's rate for their fossil fuel-based electricity supply.



INCREASED CONSUMER COST IN 2023

In 2023, participating households paid an average of \$9 more per month for cleaner electricity than they would have paid had they been paying the utility's rate for fossil fuel-based electricity supply.

WHERE THE ELECTRICITY COMES FROM

More than 90% of program participants run their homes and businesses on a 100% or a 50% NY renewable electricity option. In contrast, those on the utility standard supply only receive 6% of their electricity from renewable sources.

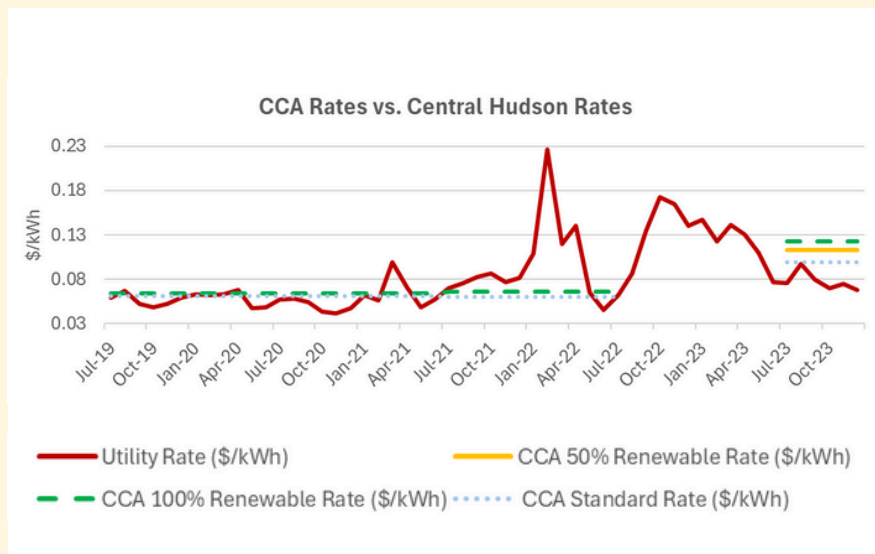
ELECTRICITY SUPPLY RATES OVER TIME

A case study of the Hudson Valley

The renewable electricity program Hudson Valley Community Power has saved consumers money on their electricity bills since it first launched in 2019.

2023: In 2023, the program renewed its electricity supply rate, taking into account historical utility rates and forward-looking market trends. This included an increase in costs for renewables.

However, unexpectedly, when the program renewed, the utility rates decreased. As a result, program participants ended up paying more than they would have under the utility's rate for fossil fuel-based electricity supply.



Additional savings through community solar:

Since 2019, more than 3,000 households in Joule's communities have enrolled in community solar programs. Community solar enables consumers to support new local solar farms, and access guaranteed savings on their electricity bills through bill credits. Consumers may participate in community choice electricity supply and community solar programs simultaneously.

Local development of clean energy projects

In this section we cover two project development initiatives we worked on in 2023; a community solar project on municipal land and an energy storage project with a rescue mission. These projects focus on local project ownership, increasing local resiliency, and involving and benefiting disadvantaged communities.

ENERGY STORAGE PROJECT WITH NON-PROFIT ORGANIZATION

Joint project with Rochester's Open Door Mission is granted federal funding through the Energy Storage for Social Equity Program

The project, addressing energy costs and reliability, was granted technical assistance, then federal funding through the U.S. Department of Energy (DOE) sponsored Energy Storage for Social Equity (ES4SE) program, and through additional DOE programs. ES4SE is a \$9 million effort intended to address energy affordability in disadvantaged communities that face local environmental impacts, frequent energy service disruptions, and high energy costs as a portion of residents' income.

With an emphasis on creating local jobs, the project aims to develop solar (50 kW) and energy storage (1.3 MWh) as well as electric vehicle charging facilities at one of the Mission's Rochester sites, supporting resilience for all operations.

The facility prepares nearly 100,000 meals each year. In the case of a blackout, the project will allow the site to run for three days without needing an emergency generator and without emitting any particulates into the local community and further contributing to high asthma rates. Joule wrote the initial proposal and worked directly with the DOE, throughout the project development phase leading to funding.

COMMUNITY SOLAR ON MUNICIPAL LAND

Community solar project on Long Island

Joule is working with the Town of Southampton to construct a 4MW solar farm on a closed municipally owned landfill; the project will first offer solar bill credits to low- to moderate-income households, guaranteeing savings on electricity bills for those who join.

OUR SERVICES OPEN UP NEW OPPORTUNITIES FOR PROJECT DEVELOPERS ACROSS NEW YORK STATE BY CONNECTING THEM WITH MOTIVATED LANDOWNERS WHO HAVE DEVELOPMENT-READY PROJECT SITES.

Joule collaborates with interested municipalities and landowners to streamline the planning process, help identify and assess promising opportunities, and conduct initial site prospecting, in an effort to reduce uncertainties for developers. After identifying viable project opportunities, Joule proceeds to solicit bids on behalf of the landowner to select suitable project developers.

Joule is working with multiple municipalities to develop projects on local land; RFPs for the new sites will be forthcoming.



Get Started

HELP YOUR COMMUNITY UNLOCK THE POTENTIAL OF RENEWABLE ENERGY

Joule acts as a local energy advisor helping communities act on local clean energy project opportunities while maximizing available funding and local benefit, especially for low-income and disadvantaged communities.

AVAILABLE OPPORTUNITIES FOR COMMUNITIES:

- Renewable electricity supply
- Local clean energy project development, including community solar or energy storage
- Community solar program, delivering guaranteed savings for consumers
- Low- to moderate-income solar and storage benefit opportunities
- Opportunities facilitated by the Inflation Reduction Act (IRA):
 1. Payment for local project development and ownership
 2. Job training and placement opportunities

Contact us to learn more and change your community's energy future!

Joule Community Power Team

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Joule can help you identify what makes most sense for your community:

1. Identify and assess potential clean energy projects.
2. Help select the programs best suited for your community
3. Support with planning, designing, funding and implementing renewable energy projects



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