

nationalgrid

# Our Net Zero Plan



In 2020, National Grid launched its Net Zero Plan, which is aimed at achieving net zero emissions, including indirect emissions from the sale of electricity and gas to customers. The plan explores solutions to dramatically reduce emissions to net zero while still delivering affordable, reliable clean energy for customers. To address climate change, the next 10 years are a “critical decade” in which urgent action is needed.

The Net Zero Plan entails key areas of focus, including reducing demand through energy efficiency and demand response, decarbonizing heat through electric and hybrid-electric heat pumps, and transforming the gas network through use of low carbon fuels. It also involves interconnecting clean energy, updating the electric grid, enabling the connection of more renewables, and advancing clean transportation. The company’s emission targets are aligned with the states in which it operates, helping New York, Massachusetts, and Rhode Island in meeting their respective 2030 climate goals.

## National Grid Initiatives

A year out from our launch, National Grid has made strides and will continue to report our progress. To ensure we are doing enough to address global climate change, we partnered with the Science Based Target initiative (SBTi) to determine what targets we would need to meet to do our part in keeping the Earth’s temperature below the 2 degree Celsius threshold, a threshold that the IPCC reports will help prevent catastrophic climate change. These new verified interim targets are in addition to our end goal of net zero by 2050 for direct and indirect emissions.

Analysis of our emission profiles has led us to key categories of focus in our journey to net zero:

## Clean transportation

National Grid is making strides to facilitate equitable access to clean transportation choices and building a reliable network that benefits all customers and enables the market.

- Already we have installed nearly 3,300 charging ports in New York, Massachusetts, and Rhode Island with 50% located within environmental justice and disadvantaged communities.
- We are installing at least 20,000 vehicle charging ports by 2025, with the potential of installing an additional 30,000 by 2025.
- We have committed to convert to an 100 percent electric fleet by 2030 for our light-duty vehicles while also pursuing the replacement of our medium- and heavy-duty vehicles with zero carbon alternatives. This includes our purchase of one of the world’s first electric backhoes and testing of one of Ford’s first E-Transit vans.

## Connecting Renewables

National Grid is focused on connecting clean, renewable energy to the grid, partnering with our states to reach clean energy targets by enabling the deployment of cost-effective zero-carbon generation resources, ranging from large-scale offshore wind projects, to smaller distributed solar generation. We’re doing that by investing in transmission infrastructure and other technology, while making long-term commitments to purchase clean power from renewable generators.

- As of December 2020, we have interconnected more than 105,000 distributed generation projects across our footprint. We have interconnected the 2nd largest amount of large-scale, non-residential solar of any utility in the U.S.

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## Our Net Zero Plan *continued*



- We have contracted for more than 6,500 gigawatt hours per year of large-scale renewable energy for our New England customers
- In 2021, we signed an agreement with the New York Power Authority (NYPA) to invest in and build the Smart Path Connect transmission project to enable the delivery of approximately 1 GW of large-scale renewable generation.
- National Grid is planning to develop and construct nearly \$5 billion in necessary transmission and distribution upgrades to help meet the renewable targets in our states and open up 6,200 MW of clean energy capacity in the region.

### Energy Efficiency

Electric and gas energy efficiency and demand response are foundational elements of the pathway to net zero. By 2030, we'll need to double the rate of energy efficiency retrofits across our region and reduce peak energy consumption, which can reduce the need for new infrastructure.

- Our customer energy efficiency programs continue to be rated in the top 5 in the United States per the American Council for an Energy-Efficient Economy — Massachusetts was #2, Rhode Island was #4, and New York was #5 — as of December 2020.
- In 2020, despite the impacts of the COVID-19 global pandemic, our U.S. programs achieved 3,553,960 dekatherms (Dth) of natural gas savings and 1,228,778 MWh of electric savings and including more than 21,000 virtual home energy audits.
- By 2030, we plan to reduce energy consumption in our company facilities by 20% from a 2019 baseline through energy efficiency measures.

### Decarbonizing Heat

We are offering incentives to our customers in Massachusetts and New York for installing heat pumps to reduce reliance on oil, propane, inefficient electric baseboard, or natural gas heating equipment. Our low-carbon fuels strategy includes renewable natural gas (RNG) and green hydrogen. RNG is a carbon-neutral gas produced by upgrading methane from already existing methane emission sources like landfills and wastewater treatment plants. We are only considering RNG from sustainable sources.

We are researching how renewable zero-carbon green hydrogen can supplement our gas network as a zero-carbon fuel.

- We launched a hydrogen blending study with NYSERDA and Stony Brook University to understand the details of delivering hydrogen through our distribution networks
- We are facilitating over a dozen customer requests to produce and interconnect about 10 million dekatherms/year of RNG and we intend to have 5% of our gas supply come from RNG by 2030
- We're striving to have some 42,000 heat pumps installed in commercial and industrial facilities by 2025
- National Grid is also ramping up installations of heat pumps in residential locations, including more than 8,700 heat pumps in Massachusetts and New York in 2020.

### Reducing methane emissions

National Grid is also taking responsibility for emissions related to the natural gas we distribute and sell to our customers. We are committed to reducing methane leaks from our entire gas supply chain including our own gas networks.

- Already, the leak prone pipe (LPP) replacement work led to a 15% reduction in emissions in our distribution mains over five years, as the company has been replacing 400 miles of pipe per year.
- As a member of the EPA's Methane Challenge, we continue to offer public transparency on our mains' leaks and replacement efforts.
- Through our LPP programs we are reducing our methane emissions in our mains by 17% in the next 5 years, 23% by 2030 and 90% by its completion in the 2040s.

As we continue to decarbonize, National Grid will remain honest and transparent about our progress, acknowledging when challenges or new opportunities arise. Reaching net zero is an obligation we are proud to share with New York, Massachusetts, and Rhode Island and we look forward to meeting the target with an essential focus on this critical decade.