

## **About Nature Energy**

*Pioneering a sustainable future by turning waste into value*

Nature Energy is a global leader in biomethane (aka, renewable natural gas or RNG) production from organic waste and is the largest producer of biogas energy in the world. We have pioneered the "Biogas 2.0" movement by transforming organic wastes from agriculture, industry, commercial sector and households, into a sustainable green energy supply that returns nutrient-rich fertilizer to farmers. And the fact that our plants are placed in rural areas helps to bring needed jobs and economic development to those regions.

We own and operate 12 large-scale plants in Denmark where we supply one third of all biomethane running through the Danish gas grid. Nature Energy's plants are typically 10 times the size of the largest current U.S. digester projects. We have plants under development in 5 countries: Canada, Denmark, France, the Netherlands and the United States. Our experience developing, building, and running biogas plants dates back over three decades, with over 70 plants designed and delivered. With our first-in-class technology, successful track record, and our team's know-how with over 350 engineers, scientists and biogas experts, we plan to invest \$3B globally in plant development, with a strong focus in the United States and Canada.

This year alone, Nature Energy's biogas plants will treat more than 4.4 million tons of biomass – animal manure and residual waste from agriculture, industry and households – converting it into more than 181 million m<sup>3</sup> of green RNG and 4.2 million tons of green fertilizers. That much biogas is the equivalent of fueling 8,000 buses driving 30,000 miles per year, or to heating 157,000 homes. All of this green energy is CO<sub>2</sub>-neutral replacing fossil fuels.

At Nature Energy, we collect and deliver biomass from businesses, agriculture and households, and return the digestate (degassed biomass) to the agriculture sector with higher nutrient density helping increase on-farm yields by as much as 30%. Through our digestate separation process we are able to reduce levels of nitrogen, phosphorus and other constituents to help local farmers reduce watershed risk and improve the quality of their land while reducing their GHG footprint.

At the heart of our work is leading the "circular economy." We remove greenhouse gasses by carting away manure from the farm and returning the nutrient-rich fertilizer back to the farm helping increase production. We reduce waste that would otherwise be put into landfills (includes food production, restaurant and household

food waste), and we are a source for green gas (RNG) that we connect into the existing energy pipeline helping decarbonize energy portfolios - providing a renewable energy solution for transport (trucks, planes, ships) and for households and industrial processes.

The organic waste that is trucked to our biogas plants is sent to the plant's processing tanks (digesters) on premise. In the digester, which runs at about 120 °F (or 50 °C), bacteria convert organic biomass into biogas and liquid fertilizer (digestate). The biogas can then be distributed as green energy, and the digested manure (digestate) sent back to farmers, who use it to fertilize their fields. Unlike the animal manure, the digestate will no longer produce methane, which is a potent greenhouse gas and harmful to the environment.

We work very closely with farmers, local municipalities, feedstock suppliers, and state agencies to select sites that are both efficient for material transport and energy transfer - and that have the least impact on local communities. A typical Nature Energy plant sits on 25 acres and is preferably within 10-25 miles of feedstock providers. It is estimated that one Nature Energy biogas plant generates 15 direct jobs, 70 derived permanent jobs, and additional 220 construction jobs.

To see our processes in action, click on the click here [Nature Energy - Who we are - YouTube](#) or visit our website [www.nature-energy.com](http://www.nature-energy.com).

### **New York Climate Action Council Draft Scoping Plan**

Nature Energy commends the extensive work of the Climate Action Council, the Working Groups, Advisory Panels, and the dedicated staff at New York's key State agencies tasked with drafting this important Draft Scoping Plan (Draft Plan) and addressing climate change. Once complete, the Final Scoping Plan (Final Plan) will be the State's most comprehensive document aimed at providing a pathway toward reducing greenhouse gas (GHG) emissions and achieving the broader social and environmental goals required by the Climate Leadership and Community Protection Act (CLCPA).

The Draft Plan contains a number of key strategies related to the use of renewable natural gas (RNG) as a climate change mitigation tool for use across all sectors. These strategies will increase the use of RNG as a clean fuel; capture and utilization of methane emissions from organic waste streams; and circularity of New York's economy through recycling, the creation of bioproducts, and carbon sequestration.

While we strongly appreciate the inclusion of RNG in the various sections in the Draft Plan, we hope that the Final Plan will go further and outline a comprehensive vision for the long-term sustainable production and use of RNG as a key tool toward New York’s greenhouse gas reduction goals.

*The Final Plan Should Promote RNG as a Fundamental Solution to Climate Change*

Incorporating the use of RNG as part of New York’s Final Scoping Plan will result in compound benefits through (1) the displacement of carbon dioxide (CO<sub>2</sub>) emissions from the combustion of fossil fuels, (2) the critical near-term greenhouse gas (GHG) benefit of increased methane capture and destruction, and (3) additional air and water quality benefits that result from the improved management of organic waste. To achieve these outcomes, New York should target and incentivize the development of RNG production in New York, and the Final Plan should articulate the benefits of building and deploying RNG as quickly as possible.

Complementary to their role as a method of zero-fossil-carbon energy supply, RNG is unique in its near-term ability to reduce methane—a short-lived climate pollutant that, when assessed over a 20-year timeframe, is up to 80 times as potent as a greenhouse gas as carbon dioxide—and to serve as a catalyst for improving organic waste management practices. Society’s waste streams create significant methane that must be dealt with quickly. Using this methane from organic wastes productively as a resource, rather than flaring it, provides greater impetus toward implementing and improving methane capture and organic waste management systems. In creating a policy framework designed to improve the GHG performance of the organic waste sector it is important to consider that, globally, municipal solid waste is expected to grow 69% from 2.01 billion metric tons (BT) in 2018 to 3.4 BT in 2050 (around 50% of which is organic waste). Moreover, these trends are underpinned by an expected 25% population increase of 2 billion people between now and 2050.

Current investment in low carbon energy remains far short of what is needed to achieve the decarbonization targets set by the Paris Agreement and the CLCPA. As a jurisdiction leading in waste generation and population, and considering the state’s ambitious GHG reduction goals, New York needs to help pioneer the development and commercial deployment of viable technologies to address these challenges.

*The Final Scoping Plan should include Adoption of a Clean Fuel Standard (CFS) in the transportation sector and utility procurement of RNG through either a Renewable Gas Standard (RGS) or Clean Heat Standard (CHS)*

In determining which policies and programs to recommend in the final scoping plan, New York should look to other jurisdictions which have made considerable progress toward similar decarbonization goals. To date, Tradeable Performance Standards (TPS) have proven to be most effective tools in motivating RNG buildout specifically, and “fuel switching” through clean energy and infrastructure deployment more generally toward decarbonizing the supply side of the transportation, gas, and electricity sectors. New York should build on the success of the Clean Energy Standard in the power sector by developing an analogous Clean Fuel Standard in the transportation sector and a Renewable Gas Standard or Clean Heat Standard to decarbonize the gas system.

In the Draft Plan, the Climate Action Council correctly recommended consideration of Clean Fuel Standard in the transportation sector, and we strongly urge you to include this policy recommendation in the State’s final Scoping Plan later this year. The transportation sector is the second-largest source of greenhouse gas emissions in New York State, accounting for approximately 30% of total Statewide emissions. Currently, New York remains more than 95% dependent on petroleum in transportation, consuming over 6 billion gallons of diesel and gasoline each year. With a Clean Fuel Standard, New York can build a market to aid the transition to clean fuels, reduce reliance on fossil fuels, improve public health, and help the state reach its climate goals without state tax funding.

In addition to a Clean Fuel Standard for the transportation sector, the Final Plan should recommend adoption of Renewable Gas Standard or Clean Heat Standard to decarbonize the gas system. Earlier this year, California adopted a Renewable Gas Standard that establishes a 12.2% RNG procurement mandate for gas utilities by 2030, in order to reduce methane emissions and replace fossil-derived natural gas. Even more recently, in May 2022, Minnesota adopted a first-of-its-kind Clean Heat Standard in North America, which allows gas utilities to propose investments in a variety of clean energy resources and infrastructure, including RNG. We believe that including one of these strategies in the final plan will be vital to enhancing system reliability while simultaneously meeting the long-term decarbonization goals in New York.

Lastly, the Final Plan should not limit the use of biofuels in the power generation sector, and should include incentives to move the power generation sector to RNG as expeditiously as possible. Any prohibitions on the construction of new gas infrastructure should include an exception for RNG infrastructure. The Final Plan

should recognize that new transmission dedicated solely to the transport of RNG may be necessary and should not be prohibited.

The CLCPA Scoping Plan is a monumental undertaking demonstrative of climate leadership and innovation. This effort will achieve tremendous climate, clean energy, workforce, and environmental justice benefits in New York State. Equally important, this framework will guide jurisdictions across the globe towards a brighter, more equitable future. Nature Energy looks forward to being part of this historic decarbonization effort and is thankful for the Council's consideration of our comments to the Draft Plan.