

## Joint Budget Hearing written testimony

My name is Chris Noble and along with my family and neighbors we operate Noblehurst Farms in Linwood New York which is located about 30 miles south of Rochester on the western ridge of the Genesee Valley. Noblehurst is a dairy and crop farm milking more than 1,700 cows and farming over 3,000 acres of corn, alfalfa and triticale. These crops are primarily used to feed our cows and the land is utilized to manage the nutrients created by these animals.

We are passionate about sustainability, and have taken many steps over the years to invest in environmentally conscious practices with the goal of improving the long-term sustainability of our farm.

In the early 2000s with the help of NYSERDA we were one of the first dairy farms in New York state to invest in anaerobic digestion, the process of harnessing methane in the form of biogas from our cows to create baseload renewable energy. The early years were a steep learning curve, but we were able to achieve reduced energy costs on our farm by utilizing a resource that we already were producing.

As regulations and technology changed we were able to re-invest in this technology in 2014 to expand our digester and renewable energy generation capabilities, using not only the resource produced by our cows, but also food waste collected from our local community. In order to guarantee that supply of food waste we started another business called Natural Upcycling focused on partnering with food waste generators to remove their food waste and bring it to anaerobic digester facilities like Noblehurst across the state of New York.

Diverse customers like Wegmans Food Markets, Chipotle Mexican Grill, and Skidmore College use our service to achieve their recycling and sustainability goals as well as prepare for the new New York state directive effective January 1<sup>st</sup> of 2022 that applies to food waste generators that produce over 2 tons of food scraps per week – making it essential that they divert that organic waste from the landfill.

Anaerobic digesters are a fantastic destination for this organic waste, whether they be located at a farm like Noblehurst, or a merchant system close to where the food waste is being generated in suburban or urban areas, or a municipal wastewater treatment plant attached to a town or county complex.

According to a 2017 study produced for NYSERDA, New York state generates over 3.9 million tons of organic waste every year, and according to an EPA study each ton that is processed in an anaerobic digester can generate more than 4,400 cubic feet of biogas.

Biogas is a renewable natural gas that can be converted into a pipeline quality gas or RNG that can be compressed and used to run heavy duty vehicles such as buses and trucks. Current emissions from these diesel powered vehicles disproportionately affect lower income and communities of color. Converting these vehicles to a much lower emission renewable natural gas from organic waste is a win-win for the state of New York and its residents.

The total potential for this resource using New York state's organic waste is over 12 billion cubic feet of pipeline quality RNG per year, or about 25% of New York's current natural gas usage in all forms. Importantly however, this RNG could replace a significant portion of the 1.3 billion gallons of diesel in transport that New York uses each year. The transportation sector in total is responsible for 36% of greenhouse gas emissions in New York State and is one of the only segments of the economy that has increased pollution.

All of this can be achieved by implementing a Clean Fuel Standard in New York state. A clean fuel standard works to transform the fuels market from one that relies almost entirely on petroleum-based fuels to a diversified one that uses a variety of clean alternatives. All fuel sources (gas, diesel, etc.) are assessed on a carbon intensity scale that measures full life-cycle emissions. Fuels that pollute more than the standard generate deficits, and fuels cleaner than the standard generate credits. The credits generated will make it easier for NY businesses to move to electric or clean alternatives. Polluters (not New York state) pay for the development and deployment of clean alternatives and electric vehicles. Money generated will help truck fleets, transit agencies, and ridesharing services make the transition.

Closer to home, the expanded use of anaerobic digestion in New York would significantly reduce methane emissions from dairy operations such as Noblehurst Farms, while also improving on-farm economics. A clean fuel standard would create the necessary financial incentives to enable farms & farmers to invest in this important technology.

Expanded deployment of anaerobic digestion systems would employ electricians, plumbers, mechanical contractors and concrete contractors throughout the construction phase. Depending on the size of a farm/project, this can expand to include custom metal fabricators. Co-digestion of food waste, in keeping with NYS food waste diversion mandates, has the potential to create additional employment in waste sorting and delivery to farms, merchant digesters, and wastewater treatment plants, and in construction of infrastructure to accept food waste.

On a personal level I think this is a really great use of technology and locally produced resources to achieve sustainable outcomes in line with New York state goals. We would be creating jobs, sustaining farms, protecting the environment by limiting runoff and reducing emissions, and tackling a significant source of pollution in our suburban and urban areas at little to no cost to New York state as the cost of implementing a Clean Fuel Standard would be borne by the polluters themselves.

Thank you for your time and your consideration of this important initiative.