

IMPACT BIOENERGY ROLLS OUT MICROSCALE RNG AND CNG FUELING

Seattle, WA – March 9, 2020 – Seattle-based Impact Bioenergy has just launched the delivery of carbon-negative Bio-CNG (Renewable Natural Gas: RNG) fueling for both Compressed Natural Gas (CNG) vehicles and portable fuel cylinders. This is a breakthrough in both scale and carbon reduction for users of gasoline, diesel, and propane fuels. It allows fuel to be generated onsite from food waste.

Bio-CNG is derived from the anaerobic digestion of food waste, plant waste, and animal waste. The scale of the system is small enough to be relocatable, modular, and prefabricated as part of a [microdigester system](#). It allows renewable fueling on a small, distributed scale which is appropriate for farms, campuses, resorts, islands, municipalities, and any community that seeks resilience. It enables self-reliance in the areas of waste recycling, renewable energy generation, food production, and fuel generation.



The fueling rate for vehicles is 381,000 BTU per hour (3.3 GGE/hr; gallons of gasoline equivalent at 3,600 psig). The fueling rate for portable fuel cylinders is 564,000 BTU per hour (6.2 GLPGE/hr; gallons of propane equivalent at 145 psig). The fuel being generated is fully refined Renewable Natural Gas (Biomethane) at 96.5% purity (984 BTU per standard cubic foot). An AD185-2 CNG NAUTILUS anaerobic digester is generating the biogas for the system. A Quadrogen biogas conditioning and upgrading system is converting the biogas to RNG quality biomethane.

Impact Bioenergy is offering ORNG (Organic Renewable Natural Gas) tank exchange services for the first time on Vashon-Maury Island, Washington. These fuel cylinders can be used for entertainment, recreation, work, play, and outdoor cooking. Bio-CNG does not settle on floors, basements, and bilges as it is normally lighter than air.

This microscale RNG and CNG fueling takes place at [Vashon Bioenergy Farm](#), which is co-located with food manufacturer [Island Spring Organics](#). Vashon-Maury Island has a community culture of environmental, social and economic sustainability. It also has a vibrant farming sector that delivers healthy food, and a sustainable agricultural economy on the island.

The concept is the same as a typical LPG propane tank exchange service but the Bio-CNG fuel is carbon-negative at a rate that is over 3 times (320%) better for the atmosphere than propane. Every BTU of Bio-CNG used removes 2.2 BTU of propane emissions, plus avoids the use of propane. The gas cylinders are [carbon filled](#) and can store 6 times more compressed gas than a standard gas cylinder at the same pressure.

The carbon reduction benefits of Bio-CNG from food waste and other organic wastes offers the opportunity to truly minimize carbon emissions from combustion engines. Switching to Bio-CNG is proven to capture more greenhouse gases than it emits, therefore its life cycle has a net-negative carbon intensity. In fact, specific recent studies have proven the use of Bio-CNG will [reduce greenhouse gas emissions](#) by more than 400% from conventional diesel fuel.

Impact Bioenergy is the leading firm in North America for commercial, onsite, pre-engineered anaerobic digesters in a urban commercial environment. The company is based in Seattle and manufactures the equipment in an advance manufacturing facility. Impact is an industry leader in scaling bioenergy systems and converting and marketing commercially valuable by products from organic waste materials (960 – 57,000 lbs. per week waste diversion range). The company has novel, unique, and protected intellectual property on its apparatus and method.

###

For more information on Impact Bioenergy's products and services: www.impactbioenergy.com

PRESS CONTACTS

Jan Allen

jan.a@impactbioenergy.com

(206) 250-3242