

Press Release – For Immediate Distribution

USDOE Grant Award

Closed Loop Organic Waste to Transportation Fuel Virtual Fueling Station

The USDOE has awarded a \$499,000 grant to the New Jersey Clean Cities (NJCC) organization to perform a feasibility study under its WASTE Funding Opportunity Announcement DE-FOA-0003072 - Waste Analysis and Strategies for Transportation End-Use to evaluate the establishment of a Closed Loop Organic Waste to Transportation End-Use within a Virtual Fueling Station.

Chuck Feinberg from the NJCC, as the Principal Investigator, will be joined on the feasibility evaluation team by members of the New Jersey Institute of Technology – Center for Building Knowledge and Rutgers University – EcoComplex.

The study will be an evaluation of the integration of existing organic waste technologies and processes that are currently operating under existing New Jersey permits and regulatory procedures that can be interconnected to track and trade CO₂ emissions reductions through a verifiable certificate-based system defined as ‘*virtual fueling station*’ (VFS). The feasibility study will evaluate how to address the barriers to any waste to energy system in maintaining a market for the waste product fuel and the waste product energy through a sustainable revenue stream.

The goal of this feasibility study is to document, through a lifecycle analysis of the costs and benefits, that a closed loop VFS can add overall value in terms of a sustainable revenue stream for the waste to energy market. Through detailed cost effectiveness tests, the objective is to demonstrate that the development of a verifiable and sustainable system can track and trade the value of GHG emissions reduction, and through existing distribution networks and aligned with existing waste to energy systems and facilities, from source separation through to production of renewable fuel, to demonstrate this fuel can be sustainable and used in a transportation system through a closed loop VFS.

This unique in-depth feasibility analysis of the integration of existing systems can be readily replicated in other local communities. This study focuses on the source separation of organic waste at colleges and universities (C&U) campuses across New Jersey that have permitted combined heat and power (CHP) facilities and expanding this integrated process to all other C&U campuses. The feasibility study will also include the evaluation of the equity and jobs benefits to C&U surrounding local community neighborhoods with a focus on overburdened communities.

This feasibility study is being developed within the overall context of the New Jersey Board of Public Utilities (NJBPU) Campus Decarbonization Pilot Program to include all the participating C&U and the NJBPU Natural Gas Utilities (NGU) Decarbonization Plans including the four New Jersey natural gas utilities and existing food waste recycling facilities.