

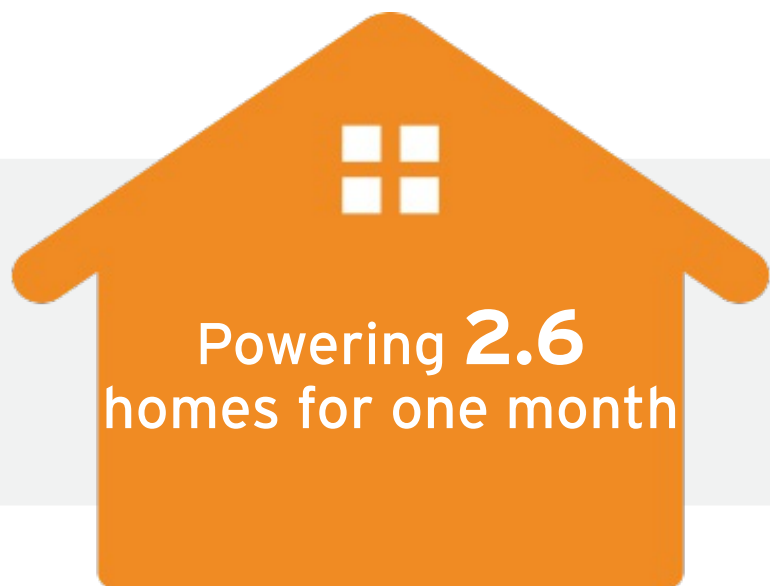
Sustainability Report

PREPARED FOR: Kent State University - KSU - Design & Innovation Hub

PERIOD: 2020

LOCATION(S):

KSU - Design and Innovation Hub (400 Janik Dr., Kent, Ohio 4...)



Energy

Your slurry was used to generate 2,332 kWh of additional electrical power

CO2 Reduction

By diverting your waste from landfills, you reduced carbon emissions by 8.8 tCO₂e



Bio-solids for Fertilizer

The remainder of the slurry after extracting the energy yielded 0.7 tons of fertilizer

Technical References:

- Carbon emissions and heat generated from EPA Waste Reduction Model (WARM), assuming national average for landfill gas recovery, no curing of digestate after digestion and digestate land application
- Typical food waste mix adopted: Beef 9%, Poultry 11%, Grains 13%, Fruits and Vegetables 49%, Dairy Products 18%
- Miles from EPA's Greenhouse Gases Equivalencies Calculator
- Heat to electricity conversion efficiency adopted of 44%
- Average Household consumption from U.S. Energy Information Administration (EIA)
- Fertilizer based on 0.19gTS/gTSfw & 30%TS, Kim et al. 2016. Synergism of co-digestion of food wastes with municipal wastewater treatment biosolids. Waste Management.