Fund anaerobic digestion

HENNEPIN COUNTY

MINNESOTA

Request for funding to support anaerobic digestion of organics

Hennepin County is requesting \$26 million in state bonding to build an anaerobic digestion (AD) facility capable of processing a minimum of 25,000 tons per year of organics to produce energy and beneficial products such as fertilizer and compost.

This facility will help the county make progress toward zero waste and climate action goals



AD facility in San Luis Obispo, California

The proposed location is adjacent to the county's Brooklyn Park Transfer Station at 9401 83rd Avenue in the City of Brooklyn Park.

The desired project timeframe is to complete design and value engineering in 2023 and then start the permitting and construction phases, with the goal of facility start-up in 2026.

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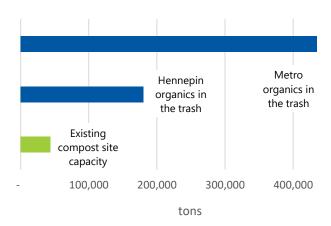
hennepin.us/solidwasteplanning

Infrastructure development needs to keep pace with organics collection programs

Minnesota statute requires metro counties achieve a 75% recycling rate by 2030. Waste sort studies continue to show that organic materials are the largest proportion of our trash – about 25%. Organics recycling is our biggest opportunity to reduce our trash.

- Organics recycling continues to increase due to businesses to food waste recycling requirements and city requirements to offer organics recycling to residents.
- The metro area is served by only two compost sites that are at or near capacity.
- Anaerobic digestion provides an opportunity to expand and diversify local organics infrastructure.

Organics available vs. processing capacity



Anaerobic digestion is a higher and better use of material

- The EPA's food waste hierarchy prioritizes anaerobic digestion over composting.
- AD transforms organic waste into two main products: 1) biogas, an energy source, and 2) digestate, a nutrient-rich fertilizer.
- Biogas from AD can displace fossil fuels for heating and electricity generation. It can also be converted into biofuels for vehicles. The digestate can replace fossil fuel-based fertilizers.

Action on organics recycling is needed to meet our climate goals

Food and organic material produces methane when it decomposes in landfills. Methane creates a warming effect 84 times greater than carbon dioxide over a 20-year period. Climate experts rank reducing methane from landfills as a top strategy for rapidly slashing carbon-related emissions.

Methane created and captured from the controlled process of anaerobic digestion reduces greenhouse gas emissions effectively and creates beneficial products, such as renewable natural gas, fertilizer and compost. Diverting more organics from the trash through AD is one of the county's foundational strategies in the Climate Action Plan to achieve net zero emissions by 2050.

The proposed site's proximity to the Brooklyn Park Transfer Station will also reduce emissions from transporting the material and help reduce the cost of organics recycling by providing the opportunity to efficiently collect and process organics.