

INNOVATIVE SOLUTION TO RENEWABLE ENERGY

ANAEROBIC DIGESTION

A SOLUTION FROM DEM-CON COMPANIES AND HITACHI Zosen INOVA PARTNERSHIP
WITH RAMSEY/WASHINGTON RECYCLING AND ENERGY



**RAMSEY/WASHINGTON
RECYCLING & ENERGY**



**Hitachi Zosen
INOVA**



MINNESOTA LEGISLATURE BILL

SF 4889 | HF4938

**RENEWABLE DEVELOPMENT ACCOUNT
REQUEST**

\$100M PROJECT | COMPLETED IN 2026 | PUBLIC/PRIVATE PARTNERSHIP

**INNOVATIVE
SOLUTION
TO FOOD
WASTE**

>>> ABOUT THE DIGESTER PROJECT

The Ramsey/Washington Recycling & Energy Board, Dem-Con Companies and Hitachi Zosen Inova propose to implement an innovative renewable energy project that will have substantial clean energy, environmental and community benefits for the next generation. The facility is an anaerobic digester and gasifier that creates renewable natural gas (RNG) and biochar. It will be located in Shakopee, Minnesota serving the seven county metropolitan area.

HOW IT WORKS

DIGESTING FOOD WASTE = RENEWABLE NATURAL GAS & BIOCHAR

>>> ANAEROBIC DIGESTION & GASIFICATION

Anaerobic digesters process organic materials like our yard waste and food waste and turns them into valuable resources like renewable natural gas and compost. An anaerobic digester is just like your stomach, but bigger and breaks down a lot more organic material. The digestion takes place in a sealed vessel which contains complex microbial communities that break down waste. The food waste is converted into renewable natural gas and biochar.

STATE CLIMATE GOALS

The anaerobic digester supports the state's goals of 75% recycling by 2030, 100% clean energy by 2040, and carbon neutral by 2050 as stated in the state's Climate Action Framework.

>>> RENEWABLE NATURAL GAS

Processing 70,000 tons per year of food waste, that would have otherwise went to a landfill, producing Renewable Natural Gas (RNG) and Biochar. Renewable Natural Gas (RNG) is a sustainable energy source reducing powerful greenhouse gases. This facility will reduce emissions by 30,000 tons per year of CO₂ equivalent (CO₂e) which is equal to removing 6,147 passenger vehicles from the road each year.



BIOCHAR PRODUCTION <<<

Digestate, the remaining material from the anaerobic digestion process, can be made into biochar through gasification. Biochar sequesters carbon helping meet our climate change goals while creating a valuable soil amendment product. Biochar improves soils that grow our food, completing a circular economy. Shakopee Mdewakanton Sioux Community is an operational partner for this project using the biochar to enhance their compost products.

**REDUCES 30,000
TONS PER YEAR
OF CO₂E**

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