

# Community Renewable Energy





# Welcome to Goshen, Indiana

Population: 33,034 humans



And a lot  
of cows.

An aerial view of a town street at night. The street is illuminated by streetlights, and several cars are visible. On the left, there are multi-story brick buildings with storefronts. One building has a striped awning and a sign that says "182". The overall scene is dark, with the lights from the street and buildings providing the main illumination.

LIKE MOST AMERICAN TOWNS,

**GOSHEN**

PRODUCES A LOT OF

**WASTE**



Americans waste around  
**411 pounds of food**  
per person every year.

And the average cow produces  
**140 pounds of manure**  
every single day.





Handling all that waste can be a  
**major expense**  
and a big headache.

That's why Green Cow Power & DVO Inc  
built an anaerobic digester



GREEN COW POWER & DVO  
KNOW

ANAEROBIC DIGESTERS

CONVERT FOOD WASTE & MANURE TO

**BIOGAS**  
AND **ODORLESS**  
**FERTILIZER**



# Green Cow Power partnered with



local businesses to collect  
**food waste**  
and with five dairy farms  
to send **manure**  
to their digester.

We call this a **hub and spoke** model.



The manure is pumped through a set of  
**underground pipes.**





While the  
**food waste**  
is trucked in each day.



The combined manure and food waste  
produce enough biogas to generate  
**3.15 MW of Electricity.**

ENOUGH TO POWER  
**1900**  
HOMES FOR ONE YEAR.  
THAT'S **16%**  
OF ALL THE HOUSEHOLDS IN  
**GOSHEN.**





But Green Cow Power  
wasn't finished yet.

Biogas also  
heats water...



Some of that water regulates the  
**digester's temperature**  
keeping it operating year-round.



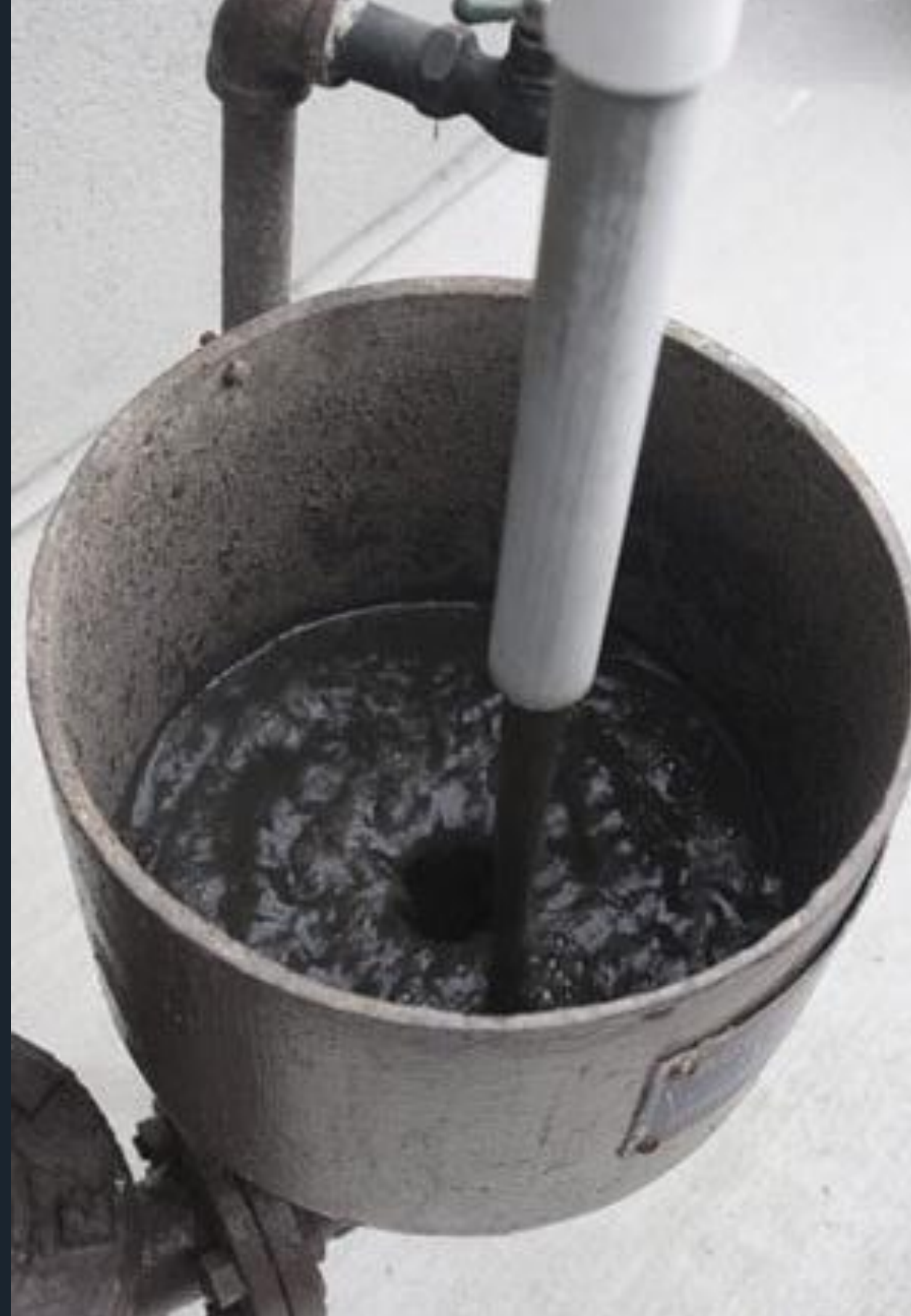


The rest gets pumped back to each farm to

**heat barn floors**

which keeps cows warm in the winter.

And biogas isn't the only product of anaerobic digestion.



solids, which the farms use for animal bedding...



The remaining sludge is separated into...



and liquids, which they use as high-quality fertilizer



The system even allows for  
**phosphorus recovery**  
to be used on the farm or sold.

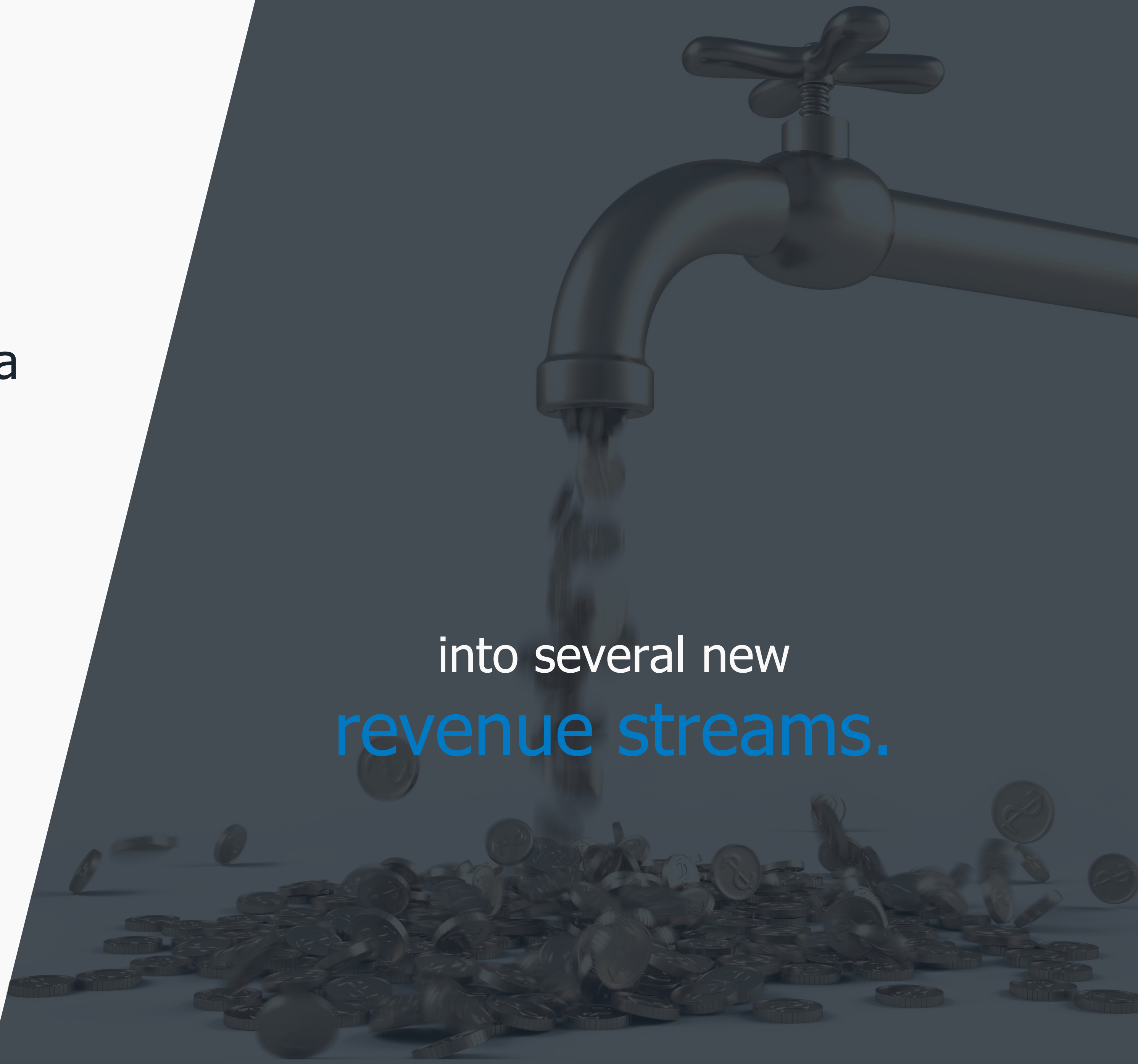


# The hub and spoke model

gives Green Cow Power the  
**scale to offset costs**

Turning waste management from a  
**cost center**

into several new  
**revenue streams.**



# The design has even won several awards.

Michiana Area Council of Governments  
2016 Clean Air Awards  
*Partners for Clean Air Award*



American Biogas Council  
2015 Biogas Industry Awards  
*Agricultural Project of the Year*



America's farmers aren't just  
growing food...

they're growing the  
economy.

A satellite image of Earth, showing North and Central America. The image is darkened to serve as a background for text. The text is centered over the continent of North America.

And protecting the environment  
while they're at it.



Visit [epa.gov/agstar](https://epa.gov/agstar) to learn more

