

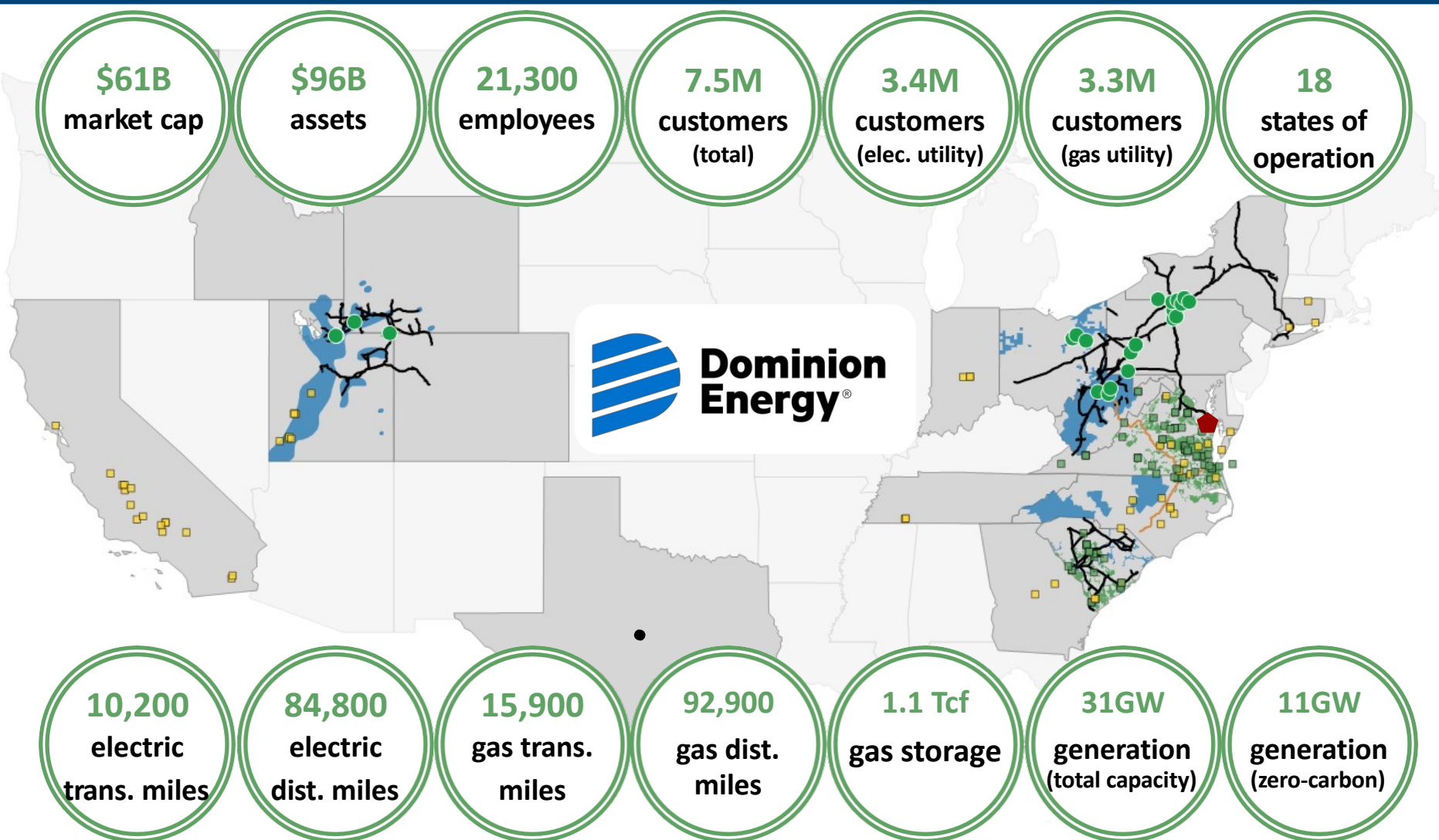
# RNG: Transforming the Future of Sustainable Energy & Agriculture



September 24<sup>th</sup>, 2019

# Dominion Energy Today

## Regulated energy infrastructure footprint



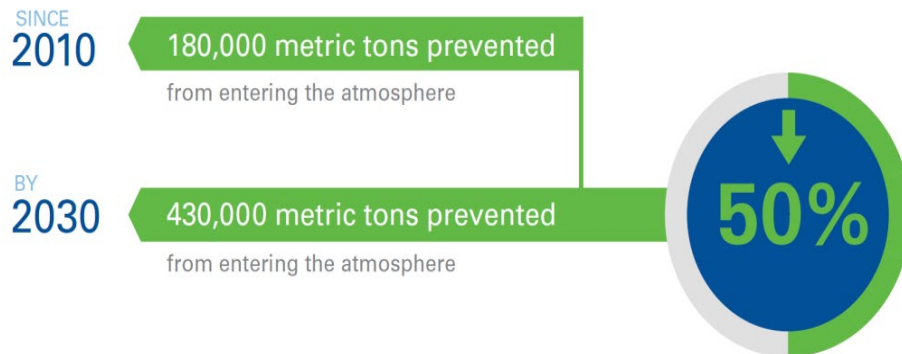
Note: Dominion Energy manages Ft. Hood's electric utility system (located in Texas) which is denoted as a black dot on the map

# Our Vision

## Emissions targets for a clean energy future

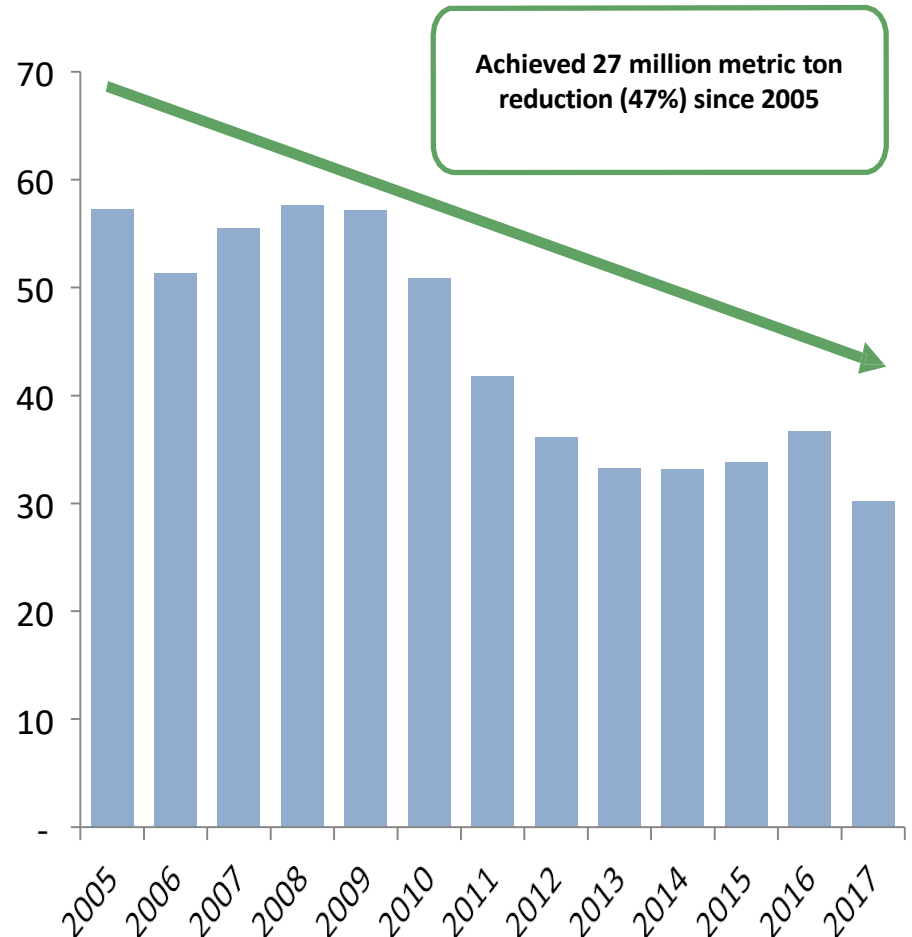


In February 2019, Dominion Energy announced an historic, industry-leading initiative to **reduce methane emissions by 50 percent** across our natural gas system by 2030.



Dominion Energy is one of three companies to pilot the AGA ESG metrics & the **only** natural gas transmission **company to post transmission ESG metrics**

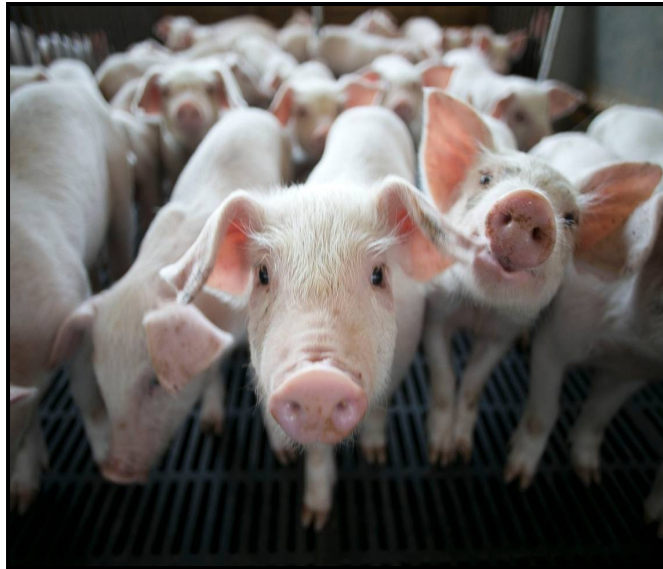
Dominion Energy carbon emissions (million metric tons)



Note: Carbon and methane emissions reductions targets do not include the Southeast Energy Group. The company expects to update its targets to include the Southeast Energy Group later this year.



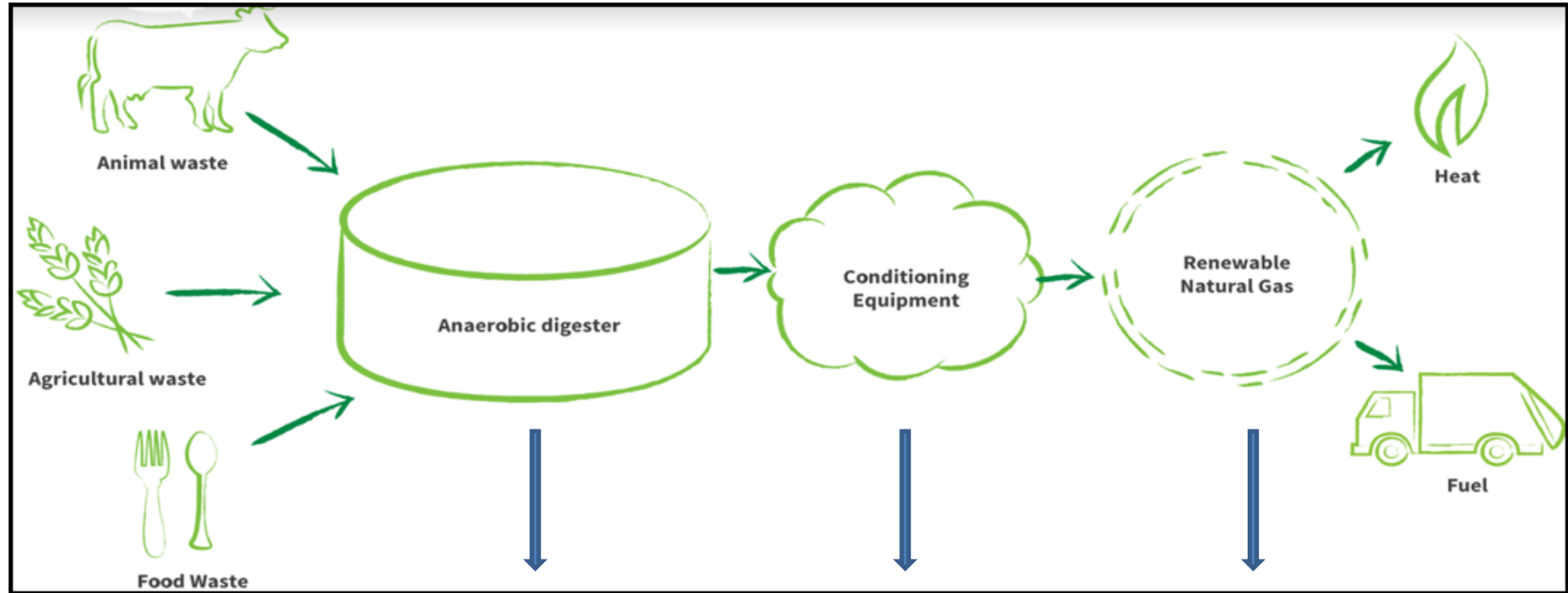
## What do the following have in common?



**They are all producers of natural gas!**

# Renewable Natural Gas

## How Does It Work?



Global Industry Leaders	\$250-million joint venture between Dominion Energy & Smithfield Foods
Four Initial Projects Lead to Wider Expansion	4 initial projects in NC, VA and UT with goal of 90% of Smithfield's farms in NC and UT in 10 years
Greenhouse Gas (GHG) Reductions	Initial projects equivalent to <b>taking 100,000 cars off the road</b> or <b>planting 7.8 million new trees</b>
Carbon-Negative Fuel	More GHG emissions captured from hog farms than released in end-use in homes & businesses
Around-the-clock Renewable Energy	RNG generates power on-demand, 24/7, 365 days a year



# Align RNG™ Initial Projects

## Virginia, North Carolina & Utah



### Milford, UT

Construction began in 2018  
Operational by late 2019



### Sampson and Duplin Counties, NC

Construction begins in mid-2019  
Operational by mid-2020



### Waverly, VA

Enough energy to power

# 14,000

homes and businesses

Emissions reduction equal to planting

# 7.8 million

new trees



# RNG Project Offtake Illustration

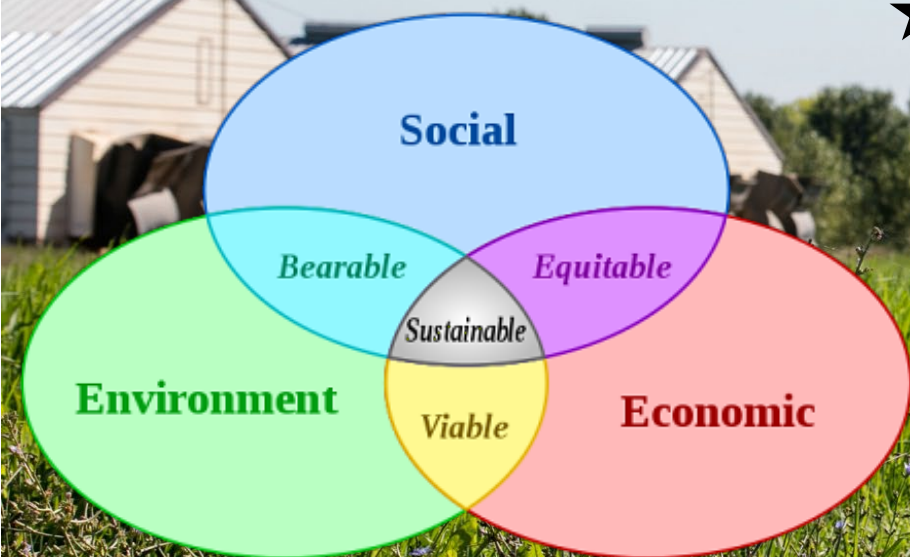
## Powerful Carbon Reduction- Project Example



### CO2e savings from capturing Methane to produce Renewable Natural Gas

<b>RNG</b> Delivered to Customer: 300,000 (MCF/yr) – OR – 12,000,000 (lbs CH <sub>4</sub> /yr)	<b>×</b>	<b>GWP</b> Global Warming Potential <b>25</b> CH <sub>4</sub> GWP vs CO <sub>2</sub> GWP	<b>=</b>	<b>SUSTAINABILITY</b> Annual CO2e Emissions Reduction 300,000,000 (lbs CO <sub>2</sub> e/yr) – OR – 136,000 (Metric Tons/yr) <sup>1</sup>
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★ Gas supply sufficient to serve >3,500 homes<sup>2</sup>



★ Eliminating 136,000 MTs of CO2e/year reduction is the equivalent of:

- Removing >29,000 passenger vehicles from the road
- ~2.25M tree seedlings grown for 10 years

1. Excludes downstream emissions from combustion of RNG  
2. Assumes power generation heat rate of 6,800 BTU/kWh and 12,500 kWh per home per year



# Renewable Natural Gas

## A 24/7 Renewable...

**Renewable natural gas generates energy 24/7, 365 days a year and can be used on demand to meet the real-time needs of homes, businesses and utilities.**



RNG generates reliable power

**24/7, 365**

days a year



Solar generates reliable power

**25%**

of the time



Wind generates reliable power

**35%**

of the time

# RNG Looking Forward....

## Opportunities for farmers and the South

- Waste management is currently a significant cost for family farmers.
  - RNG allows farmers to turn a major cost driver into a new revenue stream.
  - Farmers can invest in on-farm infrastructure and share long-term revenues.
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- Development of biogas resources SSEB member states has the potential to support >\$7.1 billion in capital investment and >4,700 long-term jobs
  - Potential biogas production from these states could provide enough clean natural gas fuel to power >7.2M vehicles and produce enough electricity to serve the needs of >2.1M homes



\*Statistics referenced above according to 2015 study by American Biogas Council