

## Align RNG – Frequently Asked Questions

### **What is renewable natural gas?**

Renewable natural gas (RNG), also known as biomethane, is natural gas produced by the decomposition of organic matter under anaerobic (oxygen-free) conditions. The gas is captured and then purified to remove components such as water, carbon dioxide and hydrogen sulfide.

Major sources of RNG are landfills, animal manure and solid waste extracted during wastewater treatment. The term "renewable" is used to describe this natural gas because it is derived from waste that is continuously produced by present-day activities. These waste sources naturally produce methane as they decompose, so RNG production captures methane that would otherwise escape into the atmosphere.

### **Who is Align RNG?**

Align Renewable Natural Gas (RNG) is a new company with the rare ability to align the interests of multiple stakeholders in the agriculture, food processing, and energy industries. Farmers, food processors, energy consumers, workers, neighbors and our planet will benefit from Align RNG's capture of methane and its conversion into a valuable clean fuel for heating homes, running businesses, and generating electricity.

### **Why are Dominion Energy and Smithfield Foods involved with this project?**

Align RNG was created to help satisfy the growing demand for renewable energy and lower carbon emissions in Virginia, North Carolina, and Utah. It is part of Smithfield's industry-leading commitment and landmark investment in reducing greenhouse gas emissions through Smithfield Renewables – a platform to unify and accelerate the company's carbon reduction and renewable energy efforts. This investment and Smithfield's partnership with Dominion Energy builds on Smithfield's nearly 20 years of work exploring sustainable ways to convert manure into renewable energy.

It also fits Dominion Energy's strategy of providing renewable energy offerings, as well as its ongoing commitment to building a more sustainable future. Through a 50/50 joint venture, the companies will invest \$250 million over the next 10 years to develop RNG projects.

### **How will the natural gas be produced?**

Swine waste will be treated in anaerobic digesters — where the solids in manure are converted by bacteria into biogas, which then flows through conditioning equipment to convert to pipeline-quality gas. Multiple farms will be tied into one natural gas conditioning unit prior to pipeline injection.

### **What are the benefits of the project?**

Align RNG will deliver many benefits, such as:

- Creating more reliable energy through a renewable resource
- Providing cleaner air by capturing methane currently released into the atmosphere
- Expanding the use of natural gas to lower energy costs for customers
- Covering lagoons to convert manure to energy while mitigating risks associated with severe rain events such as hurricanes
- Offering an additional, stable revenue source to contract farmers
- Delivering property tax revenues to the nearby localities

### **How or where will the natural gas be transported to an interstate transmission pipeline system?**

Once the waste is converted to pipeline-quality gas, it will be transported to the area's local distribution company's pipeline system.

**Where will this project take place?**

Projects will begin at hog farms located in Virginia, North Carolina, and Utah. The majority of farms are owned by contract farmers, with the rest being owned by Smithfield Foods, which is headquartered in Smithfield, Virginia.

**How many farms will be participating and where are they located?**

The initial phase of the project is expected to include numerous farms located in North Carolina, Utah and Virginia.

**What are the environmental benefits?**

The project will reduce the environmental impact of fugitive methane emissions and create a renewable energy product. Depending upon the design on particular farms, these projects may improve storm water management.

**What happens to the rest of the waste that is not used for natural gas?**

When liquids and solids are separated and treated, the liquid portion will be applied as a natural fertilizer on nearby crops.

**What is the project's timeline?**

We plan to start work on our first set of projects in late 2018 and bring our initial RNG systems on-line in 2019.