



Investor Relations | Smithfield Foods USA, Global Food Company

Smithfield Foods Announces Landmark Investment to Reduce Greenhouse Gas Emissions

Global Food Company Expands “Manure-To-Energy” and Other Renewables Projects in North Carolina, Missouri, and Utah

SMITHFIELD, Va., Oct. 25, 2018 (GLOBE NEWSWIRE) -- Smithfield Foods, Inc. is pleased to announce, through the nationwide expansion of [Smithfield Renewables](#), innovative projects designed to help meet its goal to reduce the company’s greenhouse gas (GHG) emissions 25 percent by 2025, which it set in concert with the Environmental Defense Fund (EDF). This month marks the one-year anniversary of Smithfield Renewables.

As part of the expansion of Smithfield Renewables, Smithfield is:

- Setting the ambitious goal to implement “manure-to-energy” projects across 90 percent of Smithfield’s hog finishing spaces in North Carolina and Utah, and nearly all Smithfield’s hog finishing spaces in Missouri over the next ten years. This timeline will aid the company in achieving—and exceeding—its 25 by ’25 commitment.
- Converting existing anaerobic treatment lagoons to covered digesters or constructing new covered digesters to capture biogas, which will be transported to central processing facilities to be converted into renewable natural gas (RNG) in North Carolina, Missouri, and Utah.
- Launching new programs that target GHG reductions and bolster Smithfield’s sustainability efforts at farms, plants, and throughout the company’s transportation network.

“When we set an objective, we go big at Smithfield to achieve it. Today’s announcement is the culmination of decades spent studying and perfecting the commercial viability of ‘manure-to-energy’ projects. Our investment in these projects underscores our longstanding commitment to sustainability, as well as our promise to produce good food in a responsible way,” said Kenneth M. Sullivan, president and chief executive officer of Smithfield Foods.

He continued, “The scale of these projects is audacious. But, through partnerships with a broad coalition of stakeholders, including family farmers, government, energy partners, and other constituents, we’re confident we can bring about sustainable, revolutionary progress in our effort to minimize our environmental footprint.”

“Smithfield is demonstrating leadership by investing in solutions that build climate resilience and cut greenhouse gas emissions. Smithfield’s commitment to deploy technologies that convert methane into renewable biogas will substantially reduce emissions of a powerful greenhouse gas and create economic opportunities for rural communities. This commitment marks a welcome turning point for the industry,” said Fred Krupp, president of EDF.

Longstanding Commitment to Renewable Energy

With a longstanding commitment to innovation and continuous improvement, Smithfield has been researching and exploring sustainable ways to transform manure into energy for many years.

“Now, thanks to the dedication of our team members, technological advancements, and a viable market for RNG, ‘manure-to-energy’ projects are a sustainable endeavor for hog farms,” said Stewart Leeth, vice president of regulatory affairs and chief sustainability officer of Smithfield Foods. “We are proud to expand our efforts across the country, shrinking our environmental footprint and investing in the protection of our planet’s resources.”

More information about Smithfield Renewables’ latest projects is detailed below.

North Carolina

In North Carolina, Smithfield, in concert with several of its contract farmers, spearheaded the pilot program known as Optima KV, which is depicted in this [video](#). Operational since late March, Optima KV uses five anaerobic digesters to capture and clean biogas collected from in-ground digesters at five of Smithfield’s contract hog farms. The gas is then transported to a central facility to be converted into RNG. The facility is located on Smithfield property and operated by [Cavanaugh & Associates](#), a consulting engineering firm, in partnership with swine waste-to-energy project developer, [OptimaBio, LLC](#).

Optima KV is the first to leverage Smithfield’s relationship with its contract farmers, who raise and care for Smithfield’s hogs, and will create enough RNG to power 1,000 homes each year. It is also the first project to both source and create RNG in North Carolina.

“I am proud to be on the ground floor of an initiative that provides my operations with an additional source of revenue, and also supports even stronger environmental management practices,” said John Kilpatrick, owner of Circle K II Farms and a Smithfield contract grower. “I am also quite proud of my role in providing clean energy to my community—a role that challenges conventional thinking about agriculture and what it means to be a farmer.”

Following the success of the pilot project, Smithfield will expand its renewable energy efforts across eastern North Carolina. Smithfield will work with its contract farmers to convert existing anaerobic treatment lagoons to covered digesters or construct new covered digesters to capture biogas, which will then be transported to central processing facilities to be converted into RNG. In ten years, more than 90 percent of Smithfield’s company-owned and contract hog finishing spaces in North Carolina will have the capabilities to produce RNG. In addition to converting “manure-to-energy,” the covered lagoon digesters will mitigate potential issues associated with severe rain events such as hurricanes.

“Agriculture is the number one industry in our state. Investment like this will help ensure this economic pillar stays strong for generations,” said Lt. Governor Dan Forest, State of North Carolina. “We are fortunate to have a responsible company like Smithfield that leverages evolving technologies to ensure the sustainability of its operations while providing more than 10,000 jobs to North Carolinians, further strengthening our economy.”

“North Carolina is a national leader in both agriculture and renewable energy, and it is exciting to see those two industries coalesce. I applaud Smithfield’s initiative. Their efforts demonstrate how companies can become drivers of innovation and leaders in reducing greenhouse gas emissions,” said U.S. Senator Thom Tillis.

“For twenty years Smithfield has pursued renewable energy alternatives that would also be economically viable for North Carolina farmers—and this solution demonstrates the power of persistence,” said House Speaker Tim Moore, State of North Carolina.

To complement the renewable energy efforts taking place on farms, Smithfield’s Tar Heel facility will leverage its wastewater treatment system to create RNG. The company is working with OptimaBio, LLC to build a refinery and gas injection system that will collect and clean biogas from an existing onsite digester. The cleaned biogas will be injected into the natural gas pipeline to serve local consumers. The engineering for this initiative is complete, and the project will be operational within one year. Once complete, the project will power more than 2,000 homes in the surrounding area each year.

“These projects, whether on a farm or at a plant, strengthen two key industries in North Carolina: energy and agriculture,” said Gus Simmons, director of bioenergy at Cavanaugh & Associates. “Smithfield is leading the charge in expanding the state’s renewable energy portfolio while creating new economic and environmental benefits for the agriculture industry.”

Missouri

In Missouri, Smithfield and [Roeslein Alternative Energy](#) (RAE) are embarking on a joint venture to launch the second phase of a project that currently converts manure collected from company-owned farms into RNG, enough to power 15,400 homes per year. By the end of this phase, Smithfield and RAE will have jointly installed

biogas infrastructure across all company-owned finishing farms in Missouri. In ten years, nearly 100 percent of Smithfield's company-owned hog finishing spaces in Missouri will have the capabilities to produce RNG.

"Missouri farmers play a major role in meeting world food demand and strengthening our state's economy," said U.S. Senator Roy Blunt. "This initiative will also enhance their contribution to our energy security. I appreciate all our farmers and energy producers do to support jobs and growth in local communities and keep our ag industry thriving."

In addition to using manure to create RNG, this project will harvest prairie grass for methane generation. The harvested grasses, which supplement the biogas generation particularly during the cold winter months, are part of a prairie restoration effort that Smithfield has supported in Northern Missouri for some time. Earlier this year, Smithfield expanded its support for these efforts by becoming the first food company to participate in [EDF's Monarch Butterfly Exchange](#), a program that restores monarch butterfly habitats on private lands including Smithfield hog farms in Missouri.

"From their leadership in creating renewable energy to conservation, Smithfield is changing what it means to be a food company," said Rudi Roeslein, president of RAE. "Smithfield's willingness to embrace the power of prairie proves the industry can play a meaningful role in seizing the economic benefits of conservation."

Utah

In Utah, Smithfield is directly investing in RNG production by building 26 hog farms equipped with covered lagoons specifically designed for anaerobic digestion. This project marks the first time that Smithfield is building U.S. hog farms equipped with renewable energy technology. The engineering includes in-ground digesters to collect biogas that will be refined and pumped into the natural gas pipeline. Once complete, the project will create enough RNG to power 4,000 homes each year. Smithfield is constructing the farms, which will ultimately be owned and operated by contract growers, providing new economic opportunities to local Utah farmers.

"I'm proud to see Smithfield continue to expand its role as a leader in reducing greenhouse gas emissions. Efforts on behalf of companies like Smithfield validate my long-held view that innovation, rather than regulation, is the appropriate path toward meeting environmental goals. I am looking forward to other companies following Smithfield's example and happy to see Utah producers making such meaningful contributions," said U.S. Senator Orrin Hatch.

In ten years, more than 90 percent of Smithfield's hog finishing spaces in Utah will have the capabilities to produce renewable energy.

Further Smithfield Renewables Innovations

In addition to renewable energy projects, Smithfield is implementing several other projects across its operations and supply chain that will positively impact its carbon reduction efforts.

- On its hog farms, Smithfield is introducing new technologies that will reduce truck traffic and miles traveled by more than 85 percent on certain routes.
- Smithfield is adopting low trajectory application tools to more efficiently apply recycled nutrients to farmland.
- The company is planting more vegetative buffers on its farms.
- The company's partnership with Anuvia™ Plant Nutrients, [announced](#) earlier this year, reuses organic matter found in hog manure to create a commercial-grade fertilizer that achieves better crop yield compared to regular fertilizer.
- At its processing facilities, Smithfield is continuing to implement energy efficiency initiatives, including refrigeration, boiler, and other equipment projects.

- In its grain supply chain, Smithfield is on-track to meet its goal to source 75 percent of its grain from farmers who use efficient fertilizer and soil health practices.
- Finally, Smithfield will continue to collaborate with university and other partners to better quantify the impact of “waste-to-energy” technology on environmental outcomes and endeavor to further develop improvements to manure management systems.

“While we have much to be proud of in our first year, we are excited about the significant opportunities ahead,” said Kraig Westerbeek, senior director of Smithfield Renewables. “I am confident that we will build on our momentum in the coming years and long after 2025.”

An internal advisory committee evaluates these and future projects to ensure the company remains on track to meeting its GHG reduction goal and other renewable efforts. To learn more about Smithfield Renewables, please visit smithfieldfoods.com/renewables.

About Smithfield Foods

Smithfield Foods is a \$15 billion global food company and the world's largest pork processor and hog producer. In the United States, the company is also the leader in numerous packaged meats categories with popular brands including Smithfield®, Eckrich®, Nathan’s Famous®, Farmland®, Armour®, Farmer John®, Kretschmar®, John Morrell®, Cook’s®, Gwaltney®, Carando®, Margherita®, Curly’s®, Healthy Ones®, Morliny®, Krakus®, and Berlinki®. Smithfield Foods is committed to providing good food in a responsible way and maintains robust animal care, community involvement, employee safety, environmental, and food safety and quality programs. For more information, visit www.smithfieldfoods.com, and connect with us on [Facebook](#), [Twitter](#), and [LinkedIn](#).

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