Stiesdal

Stiesdal SkyClean A/S
Vejlevej 270
7323 Give
Denmark

info@stiesdal.com
www.stiesdal.com

Press release

Sauter Danmark and Stiesdal SkyClean Collaborate to Establish Agri Energy, a Cooperative Energy Company for Danish Agriculture

Copenhagen, January 24, 2024

Biogas technology company Sauter Danmark and climate enterprise Stiesdal SkyClean join forces to create local, cooperative energy companies in Danish agriculture. The joint venture is named Agri Energy.

Agri Energy aims to develop biogenic energy parks in Denmark and assist local municipalities in achieving their CO2 reduction goals.

The overarching goal of the new company is to grant agriculture ownership of the entire value chain, from biomass to bioenergy, with a long-term vision of establishing a significant cooperative focused on biogenic energy production in Denmark.

Collaboration Between Sauter Danmark and Stiesdal SkyClean
Agri Energy, the newly founded company, is a joint venture between Sauter Danmark and Stiesdal SkyClean. The two companies combine their technologies into a comprehensive concept where straw and other residues are converted into biogas. The remaining biofiber is transformed through pyrolysis into biochar and pyrolysis gas, which can be further condensed into bio-oil.

The company will concentrate on establishing energy parks, each capable of processing approximately 250,000 tons of dry matter content of residual biomass annually.

Crucial to the business concept is the involvement of farmers in both ownership and ongoing payments for biomass.

Agri Energy's Impact on CO2 Reduction and Circular Economy
By integrating the innovative technologies of both companies in large-scale facilities, Agri Energy aims to achieve a climate benefit of over 400,000 tons of CO2e per year for each energy park. This equates to approximately 1% of Denmark's total CO2 emissions compensated by each energy park. It represents a large-scale climate effort, circular economy practices, and simultaneously creates a new revenue-generating business opportunity.

Poul Erik Jørgensen, Chairman of Agri Energy and former agricultural director at Nykredit, states:
"Farmers produce and own the essential raw material for biogenic energy production, biomass. We believe that farmers will not only deliver it at the gate and barn door but will follow it all the way to the sale of energy and other climate values. The time is right for a model where farmers organize themselves into owner-supplier groups and invest in ownership of

energy production based on their own raw materials. Our mission is to provide the technical, organizational, and financial platform that makes it possible."

Agri Energy Vrå: A Model for Future Biogenic Energy Parks
Sauter Danmark's biogas technology has been extensively used for five years at the Agri Energy Vrå biogas plant. The technology allows for the substantial use of straw and bedding material in the facility. In conjunction with the Vrå biogas plant, Stiesdal SkyClean has built a 20 MW pyrolysis plant utilizing residual fiber from the biogas facility. This combination of predominantly plant-based energy production and CO2 storage with biochar serves as a model for the biogenic energy parks that Agri Energy aims to expand throughout the country.

To establish a local biogenic energy park, supplier and owner groups must be able to provide approximately 250,000 tons of dry matter annually. When the energy park is operational, participating farmers will have access to the entire value chain, from straw to gas, and the value of the associated CO2 reduction.

Daniel Overgaard Pedersen, majority shareholder in Sauter Danmark and owner of the Vrå biogas plant, remarks:
"I sense great interest from farmers in becoming co-owners of energy production based on their own raw materials, and it is on this basis that we are now creating a new Danish cooperative for biogenic energy production."

Peder Nickelsen, CEO of Stiesdal SkyClean, adds: "We are excited to expand our collaboration in Vrå. It is a natural progression for our SkyClean technology to benefit agriculture through pyrolysis. In the future, it may also be relevant to include one of Stiesdal's other technologies in the collaboration, namely our hydrogen electrolysis technology, which can be used for the production of Power-to-X fuels."

Agri Energy is led by Jørgen Ballermann, who has a background as the former director of the biogas company Xergi.

For additional information, please contact:
CEO Jørgen Ballermann, +45 2527 9436, joba@agrienergy.dk

Data sheet

Key figures regarding an Agri Energy biogenic energy park on an annual basis:

Energy production	
Production of biomethane	55 Mio. Nm3
District heating production	53 GWh
CO2 capture and storage (CCS)	
CO2	100.000 - 140.000 CO2 tons
Biochar	40.000 CO2e tons
Displacement of CO2e	
Avoided emissions in agriculture	80.000 tons of CO2e
Displacement of fossil fuels	110.000 – 160.000 tons of CO2
Displacement of fossil fuels in the energy sector	10.000 tons of CO2
Space requirements and capacity	
Total estimated area of a biogenic energy park	10 - 20 hectare
Total capacity measured in biomass	750.000 - 1.000.000 Tons
Of which the need for dry matter	250.000 Tons
Climate effect	
Climate effect of displacement	200.000 - 250.000 tons of CO2e
Climate effect from capture and storage	140.000 - 180.000 tons of CO2e
Overall climate effect	340.000 - 430.000 tons of CO2e
	(approximately 1% of Denmark's total CO2e emissions)

Website:
www.agrienergy.dk

About Sauter Denmark:
Sauter Danmark is a biogas technology company offering a patented biogas technology designed to handle a high proportion of dry matter. Sauter biogas plants can thus process a very wide range of biomass types, including residual crops from crop production. Further information about Sauter technology: www.sauter-biogas.com.

Om Stiesdal SkyClean:
Stiesdal SkyClean builds pyrolysis plants that convert organic residues from agriculture, forestry and industry into biochar and bioenergy.

Stiesdal SkyClean is part of Stiesdal - a climate technology company with activities in floating offshore wind, energy storage, Power-to-X hydrogen production, CO2 capture and storage and production of green fuel. Read more at www.stiesdal.com.