Press release

Storing surplus wind power as green ammonia at GreenLab Skive

Siemens Gamesa Renewable Energy and Energifonden Skive have signed an agreement to jointly explore eco-friendly ammonia production as a way to store surplus electricity from wind turbines. The goal: a pilot plant at GreenLab Skive.

One of the world's largest wind-turbine manufacturers, Siemens Gamesa Renewable Energy, sees green ammonia as a potential means of storing surplus energy from onshore and offshore wind farms.

As Senior Key Expert Jens Schiersing Thomsen of Siemens Gamesa explains: "In the green, sustainable energy supply systems of the future, one of our biggest challenges will be storing and converting energy and resources. One solution may be the use of surplus wind-based electricity to produce eco-friendly ammonia. This solution would offer double benefits: using the surplus energy that arises in peak wind situations, and creating a new, sustainable product we call 'green' ammonia."

Today's conventional methods produce ammonia using fossil fuels. This process is highly energy-intensive, so converting to eco-friendly ammonia production will mean significant savings on CO_2. Ammonia has various uses, notably as an essential ingredient in the artificial fertilisers used by farmers around the world. That is why Siemens Gamesa and Energifonden Skive have set out to examine, over the next few years, how they can set up a green ammonia pilot plant at the GreenLab Skive site, near the Danish town of Skive. They will soon embark on their initial investigations, which include determining plant size and capacity.

"We're really looking forward to this joint endeavour," says Commercial Director Christopher Sorensen of GreenLab Skive. "We'll be grappling with one of the major challenges to our energy system: storing surplus power. This solution will also be an excellent match for our industrial symbiosis here at GreenLab – our internal network," he elaborates, "which enables companies to share and exchange energy and resources. For one thing, ammonia plays a crucial role in agriculture. But it has other potential uses beyond that, like serving as fuel in combustion engines. So yes, we're really pleased that yet another strong, solid partner wants to join us in exploring, shaping and promoting the green transition – and the green business communities of the future."

A pilot plant to produce green ammonia at GreenLab Skive will be a key element in the business park's symbiotic infrastructure and the efforts of the centre for energy integration and storage. What is more, GreenLab Skive and the Technical University of Denmark (DTU) are currently working together to set up a national Danish energy centre in which GreenLab Skive will play a pivotal role.

Facts about Siemens Gamesa Renewable Energy
Siemens Gamesa is a leader in the sustainable-energy sector. Its global reach and decades-long experience place the company, and this new partnership, at the hub of ongoing efforts to develop the energy landscapes of the future.

One of Siemens Gamesa's strongest and most unique competitive parameters is its deep involvement in the wind-power industry, not only onshore and offshore but also as a service provider. Sustainability lies at the core of Siemens Gamesa's business philosophy, and the company's total installed capacity of 84.5 GW means savings of more than 210 million tonnes of CO_2 emissions each year. Visit www.siemensgamesa.com to learn more.

Facts about GreenLab Skive
GreenLab Skive is a unique business park in Jutland, Denmark for companies actively working with energy storage and resource efficiency. This business park is located at the crossroads of the national Danish gas and electricity grids. Companies who set up at GreenLab Skive will have the advantage of a facilitated industrial symbiosis that develops and explores the new opportunities for technology and business arising from the exchange of surplus energy and resources.

GreenLab Skive is Denmark's leading centre for integrated green energy, intelligent grid, and sustainable production. Visit www.greenlabskive.dk to learn more.

Further information and comments are available from:

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