

October 30, 2024

First Ammonia's Texas plant reaches another milestone with the launch of the fabrication of the first 100 MW of Topsoe solid oxide electrolyzers

- First Ammonia and Topsoe have finalized and signed the supply and service agreements for the first solid oxide electrolyzers for the flagship green ammonia project in Victoria, Texas.
- The signing of these agreements kicks off the supply of the first 100 MW solid oxide electrolyzer (SOEC) modules at Topsoe's new factory in Herning, Denmark.
- The 100 MW of SOEC modules will be available for delivery in Q1 2025.



First Ammonia CEO Joel Moser and Topsoe Power-to-X CEO Kim Hedegaard celebrate the contract signing at the Topsoe Herning Factory visit.

First Ammonia has reached another milestone in the development of its flagship Victoria, Texas green ammonia facility. The company has signed the sales and service agreements with Topsoe for the fabrication of the first 100 MW of solid oxide electrolyzers. The project at Port of Victoria, Texas, will commence commercial operation in 2027.

The Topsoe factory in Herning enters operation at the end of Q4 2024 and will produce 500 MW of solid oxide electrolyzers annually. This milestone follows the remarkable performance of Topsoe's solid oxide electrolyzer demonstration core that has been running in Topsoe's Frederikssund facility since the end of 2023 under industrial conditions. The testing confirms that the solid oxide electrolyzer performs well in a fluctuating operational mode which is required to run on variable solar and wind power generation.



First Ammonia CEO Joel Moser and Topsoe Power-to-X CCO Sundus Cordelia Ramli at the First Ammonia offices in Copenhagen signing the supply agreements for the first 100 MW, of the 500 MW order.

“Congratulations to our incredible partner Topsoe on this momentous occasion. Seeing the solid oxide electrolyzer production underway in Herning shows how much progress we have made on this journey together. I am proud to be working with a company that brings this level of excellence in innovation to pave the way for a truly sustainable future of green hydrogen and green ammonia production that is flexible and efficient. I am confident that Topsoe solid oxide electrolyzers will be part of the larger solution to the world’s decarbonization goals by establishing a hydrogen economy—and the production of green ammonia together will help take us there.”

– First Ammonia CEO Joel Moser

“This is an important milestone for both Topsoe and First Ammonia. Projects like the Port of Victoria green ammonia facility are vital to decarbonizing energy-intensive industries such as long-distance transportation and maritime shipping. Our SOEC technology continues to perform very well in testing and our factory remains on schedule to be operational by the end of the year. We are thankful for First Ammonia’s trust in Topsoe and our technology and are excited by the opportunities that lie ahead.”

– Topsoe Power-to-X CEO Kim Hedegaard

“It has been a pleasure to work together with the Topsoe team to make this incredible achievement possible. The solid oxide production underway in the Herning factory is the culmination of the hard work of many incredible people at Topsoe, First Ammonia, and our great partners across the industry. I am looking forward to our continued partnership to see the impact we can have together.”

– First Ammonia Global Head of Construction & Technology Kevin Barnes

“The collaboration between Topsoe and First Ammonia should serve as a model for first-of-a-kind energy transition projects. For three years, our two companies have worked extensively to reach milestones like this. Getting pioneering projects like this operating successfully takes time, and we remain excited about the journey that lies ahead with First Ammonia.”

– Topsoe Power-to-X CCO Sundus Cordelia Ramli



Teams from First Ammonia, Topsoe, as well as partners and investors joined the tour of the Herning factory to see the solid oxide electrolyzer production underway.

About First Ammonia

First Ammonia is developing modular, commercial-scale plants to produce green ammonia from fluctuating renewable energy using efficient SOEC technology. First Ammonia has secured a supply of 5 GW of electrolyzers from Topsoe with the world's largest ever electrolyzer capacity reservation agreement. First Ammonia is acquiring project sites around the world that offer resource rich, low-cost renewable energy. Green ammonia will play a central role in the decarbonization of agriculture, chemicals, power generation and storage, and transportation as a renewable energy-based fuel that is carbon-free end to end. Headquartered in New York, First Ammonia will operate production facilities on five continents, with the help of our engineering and project development team that spans First Ammonia offices in Houston-Texas and Copenhagen-Denmark.

About Topsoe

Topsoe is a leading global provider of technology and solutions for the energy transition. Topsoe combats climate change by helping its customers and partners achieve their decarbonization and emission reduction goals.

Based on decades of scientific research and innovation, Topsoe offers world-leading solutions for transforming renewable resources into fuels and chemicals for a sustainable world, and for efficient and low-carbon fuel production and clean air.

Founded in 1940, Topsoe is headquartered in Denmark, with over 2,800 employees serving customers all around the globe. To learn more, visit www.topsoe.com