



Baker Hughes and Hanwha Announce Partnership to Develop Small-Size Ammonia Turbines

February 3, 2025

- *Agreement to focus on creation of 100% ammonia combustion dual fuel with natural gas small-size turbines*
- *Ammonia is a low-carbon fuel that can play a critical role in decarbonizing hard-to-abate sector, including marine transportation*
- *Collaboration to deliver efficiency comparable to reciprocating engines while minimizing carbon emissions*

FLORENCE, Italy, Feb. 03, 2025 (GLOBE NEWSWIRE) -- Baker Hughes (NASDAQ: BKR), an energy technology company, Hanwha Power Systems and Hanwha Ocean announced Monday a Joint Development and Collaboration Agreement (JDCA) for a new small-size turbine for ammonia applications that will leverage Baker Hughes' small-size gas turbine technology and Hanwha's ammonia combustion system. The agreement was signed during the Baker Hughes 2025 Annual Meeting in Florence. The new ammonia turbine will be suitable for marine applications but also for onshore and offshore applications, and for electric generation and mechanical drive.

Ammonia is a critical fuel in enabling the decarbonization of hard-to-abate sectors, including marine, oil and gas, and power. Hanwha Ocean, one of South Korea's leading shipbuilders, will be the main beneficiary of the JDCA and will adopt the new solution as a propulsion system for their future vessels, thus enabling maritime decarbonization.

Hanwha already tested successfully a proof-of-concept of the combustor, with 100% ammonia as the fuel gas, and Baker Hughes completed its initial turbine feasibility studies in 2024. The two companies target to complete the full engine test with ammonia by the end of 2027, after which the turbine (~16MW power range) will be commercially available for orders.

"Decarbonizing hard-to-abate industries and transportation is one of the most pressing but high-potential opportunities of our time," said Alessandro Bresciani, senior vice president of Climate Technology Solutions at Baker Hughes. "We believe fuel switching to ammonia will play a key role in achieving significant emissions reductions across these sectors, and to realize this ambition, the industry needs more partnerships such as this. Together, we will continue to lead by example and take energy forward."

"We are very excited to be collaborating with Baker Hughes to deliver an innovative and efficient solution to enhance the adoption of ammonia as a fuel for the propulsion system for future vessels. This collaboration marks a significant turning point in accelerating the transition to low-carbon fuel propulsion in the global maritime industries," said James Shon, senior executive vice president and head of Product Strategy and Technology at Hanwha Ocean.

"The transition to low carbon fuels is a mission for everyone in the marine sector. We aim to play a key role in the decarbonization of the sector, together with Baker Hughes, by supporting ammonia combustion and packaging systems," said Nuno Kim, executive vice president and head of Hanwha Power Systems Ship Solution Division.

Baker Hughes is currently exploring how its small-size gas turbines can accelerate the transition from diesel motors to turbines powered by ammonia and hydrogen. In January 2024, the company announced the completion of the successful testing of the world's first 100% hydrogen turbine, which is now commercially available and with orders under execution.

About Baker Hughes

Baker Hughes (NASDAQ: BKR) is an energy technology company that provides solutions to energy and industrial customers worldwide. Built on a century of experience and conducting business in over 120 countries, our innovative technologies and services are taking energy forward – making it safer, cleaner and more efficient for people and the planet. Visit us at [bakerhughes.com](https://www.bakerhughes.com).

About Hanwha

Founded in 1952, Hanwha has grown quickly by anticipating and responding to changing business environments with a balanced business portfolio that includes energy & materials, aerospace, finance and retail & services. Our expertise and synergy in key areas have catapulted us into the seventh-largest business in South Korea and a Fortune Global 500 company. Hanwha continues to grow rapidly as we strive to pursue global leadership in all of our businesses. We are building a robust foundation for sustainable development and a brighter future for everyone. For more information, visit: www.hanwha.com

For more information, please contact:

Baker Hughes Media Relations

Chiara Toniato
+39 3463823419
chiara.toniato@bakerhughes.com

Hanwha Power Systems Media Relations

Sung Jae Park
+70 7147 4895
sungjae.park@hanwha.com

Baker Hughes Investor Relations

Chase Mulvehill

+1 346-297-2561

investor.relations@bakerhughes.com

Baker Hughes 



Hanwha

Baker Hughes