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## NORDSOL AND PRODEVAL ANNOUNCE GROUNDBREAKING BIO-LNG PRODUCTION FACILITY IN PORTUGAL

*NORDSOL, a pioneer and leader in bio-LNG technology, together with Prodeval, a leader in biogas treatment and upgrading solutions, are excited to announce their collaboration to construct a state-of-the-art bio-LNG production plant in the southern region of Portugal. The new plant will serve a prestigious industrial facility in the olive oil production sector, utilizing their organic waste to create clean, renewable energy. This groundbreaking facility, poised to commence operations in early 2025, marks a significant milestone in sustainable energy development for the region and the industry at large.*

### BIO-LNG: FUELING THE FUTURE

Bio-LNG, or liquefied biomethane, is a renewable fuel that is chemically identical to conventional LNG. Produced through the liquefaction of biogas, bio-LNG serves as a clean alternative to fossil fuels, capable of powering long-distance transport as well as high-temperature industrial processes without the carbon footprint associated with fossil energy sources. Because it makes use of existing LNG infrastructure and technology, bio-LNG is playing an important role in the reduction of GHG emissions, now.

### FROM ORGANIC WASTE TO ENERGY

To maximize the value of the organic residues from olive oil production, the biogas plant and the bio-LNG installation are co-located. The facility's projected output is set to reach 10 tons of bio-LNG and 21 tons of biogenic liquefied CO<sub>2</sub> daily from 1100 nm<sup>3</sup>/h of biogas, primarily sourced from olive waste water. The liquefied state allows for efficient transportation of the biomethane to a gasification unit, linking it directly into the natural gas network. From this entry point, this biomethane will be utilized to decarbonize high-temperature / high-pressure industrial processes.

### INNOVATIVE TECHNOLOGY AND STRATEGIC INTEGRATION

The bio-LNG production process involves upgrading biogas into biomethane using Prodeval's advanced VALOPUR® membrane technology. This biomethane is then liquefied to bio-LNG using Nordsol's innovative, energy-efficient technology, providing a high energy density, sustainable alternative to fossil fuels. The biogenic CO<sub>2</sub> captured during the process will be liquefied using Prodeval's VCOOL® FG system, emphasizing the facility's dedication to environmental stewardship. This biogenic CO<sub>2</sub> will be used in the food and beverage industry where it will displace CO<sub>2</sub> from fossil resources.

To ensure peak performance and sustainability, the plant will integrate Prodeval's systems for biogas upgrading and CO<sub>2</sub> liquefaction with Nordsol's patented technology for biomethane purification and liquefaction, which has been in operation in Amsterdam for almost three years. This process integration highlights the commitment of both companies to achieve the highest levels of energy efficiency and production reliability.

This project marks the third installation by Prodeval for a client in Portugal, reinforcing the company's commitment and expertise in the region.

### A COMMITMENT TO DECARBONIZATION

The facility is not merely an energy project; it is a robust response to the urgent need for decarbonization. The bio-LNG and biogenic CO<sub>2</sub> produced will be crucial in reducing the carbon emissions associated with industrial processes. By channeling the bio-LNG into the national gas network and utilizing the captured CO<sub>2</sub>, the project aligns with global efforts to combat climate change and promotes circular economy principles.



Nordsol's facility in Amsterdam | Bio-LNG production



Prodeval's facility in Italy | Biogas upgrading solution



## VERBATIM'S

### Léon VAN BOSSUM - CEO of NORDSOL

*"We are pleased to partner with Prodeval, marking the introduction of our cutting-edge biogas liquefaction technology in Portugal. This collaboration showcases our high quality standards, technical expertise, and unparalleled energy efficiency within the industry." said Léon van Bossum, CEO of Nordsol.*

*"This project marks a significant stride in renewable energy innovation within the region, reinforcing Nordsol's unwavering commitment to expanding bio-LNG production capacity across Europe with our established technology."*

### Sébastien PAOLOZZI - CEO of PRODEVAL

*"This is fantastic news regarding the implementation of this project in Portugal in collaboration with Nordsol. I'm particularly excited because this project aligns perfectly with our values of promoting the use of biomethane in all its forms.*

*LNG is and will continue to be a significant method for harnessing the potential of biomethane, especially for mobility purposes. I eagerly await its commissioning!"*

## PRESS CONTACT



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### NORDSOL

NORDSOL, a Dutch technology leader and implementation partner in the production of bio-LNG from biogas, is committed to pioneering sustainable energy solutions. Our mission is to unlock the potential of bio-LNG as a clean and safe energy carrier, aiming to decarbonize the «hard to abate» transport sector. By 2030, Nordsol aims to achieve an important environmental milestone of 1 million tons of avoided fossil carbon emissions through the application of its innovative technology. Collaborating closely with biogas producers, technology partners, bio-LNG offtakers, and investors, Nordsol is dedicated to advancing a greener future through impactful energy alternatives.

### PRODEVAL

PRODEVAL, a French company, is an European leader in the treatment and Biogas upgrading from the anaerobic digestion of organic waste. Over the past three decades, PRODEVAL has enhanced its expertise to provide clients with solutions for the production and distribution of Biomethane in CNG (Compressed Natural Gas) and LNG (Liquefied Natural Gas), as well as for CO<sub>2</sub> valorization. The company is actively engaged in the energy transition and the fight against climate change, demonstrating a commitment to reducing greenhouse gas emissions through innovative, responsible Biogas and bioCNG solutions that align with environmental goals. Operating in around ten countries worldwide through its six subsidiaries, the company now boasts over 475 operational installations and achieved a turnover of €141 million in 2023.