

TRAFIGURA SELECTS ISOTHERMING® TECHNOLOGY FOR GRASSROOTS DIESEL HYDROTREATER

The diesel hydrotreater will provide environmental benefits as well as aid in domestic fuel security for Argentina

ST. LOUIS, USA, September 6, 2023 – Elessent Clean Technologies (Elessent) announces the signing of license and engineering contracts with Trafigura for the construction of a state-of-the-art 125 Sm³/h (18,870 BPSD) IsoTherming® diesel hydrotreater at the Bahía Blanca Refinery located in Argentina. The addition of the IsoTherming® diesel hydrotreater will revolutionize the refining capabilities of the Bahía Blanca Refinery, which currently operates on domestic crude sourced from the Vaca Muerta and other regions of Argentina. This groundbreaking project represents a major investment by Trafigura in expanding the refinery's diesel capacity and enhancing its ability to produce and sell ultra-low sulfur diesel (ULSD) domestically. This move will also position the refinery to meet the upcoming regulation that requires a reduction in the maximum sulfur content in ULSD to 10ppm.

IsoTherming® technology is the lowest available carbon intensity technology on the market which will reduce the refinery's total carbon footprint. Not only does this technology enhance the quality of diesel fuel by efficiently removing sulfur, nitrogen, and other impurities, but it also has much lower carbon emissions than a traditional hydroprocessing unit. Through the use of a liquid-full reaction zone and an effluent recycle loop, the IsoTherming® technology requires less heating from the feed charge heater, resulting in less fuel gas burned. The ULSD fuel product complies with stringent emission regulations and also facilitates cleaner combustion in diesel engines. This cleaner combustion translates to a significant decrease in carbon dioxide and particulate matter emissions, mitigating the adverse impact of diesel-powered transportation on air quality in the region as well as global climate change.

Additionally, the diesel hydrotreater unit will be designed to optionally co-process renewable feedstock in the form of vegetable oil, giving the refinery the latitude to replace a portion of its feed with a non-fossil fuel source while producing a high-quality diesel product. This is a significant opportunity to further reduce carbon emissions and enhance sustainability measures. The exploration of co-processing exemplifies Trafigura's dedication to environmental responsibility and aligns with the global effort to transition to cleaner fuel sources.

“It has been a pleasure to work with Trafigura over the course of this project, and we're grateful for the opportunity to build this working relationship. We have offered a high-quality solution to the refinery and, due to the characteristics of IsoTherming® technology, the unit at the Bahía Blanca Refinery will reduce energy consumption and CO₂ emissions by approximately 50% in comparison to traditional hydrotreating technology,” said Samantha Presley, Global Business Leader – New Capacity for Refining Technologies.

The addition of the diesel hydrotreater is expected to provide significant advantages to Trafigura, the Bahía Blanca Refinery, and the country of Argentina. By increasing domestic production capacity, Trafigura can



bolster its position as a key player in the market and further enhance its contribution to the fuel security of Argentina.

“This hydroprocessing unit will allow Trafigura to continue offering high-quality diesel to the market by replacing their current imported diesel with domestic feeds and products to grow the local economy,” Ramiro Gonzalez, Business Development Manager for Refining Technologies - Latin America.

Startup of the new Trafigura IsoTherming® unit is expected for 2025-2026.

The IsoTherming® hydroprocessing technology utilizes a novel liquid-phase reactor system offering distinct advantages over conventional hydroprocessing technologies in that it uses hydrogen and catalyst more efficiently. The IsoTherming® hydroprocessing technology is suitable for a wide range of applications, including 100% kerosene hydrotreating, 100% light cycle oil (LCO) hydrotreating, transmix hydrotreating, diesel hydrotreating, FCC feed hydrotreating (VGO hydrotreating), mild hydrocracking, renewables co-processing, dewaxing, gas-to-liquid (GTL) upgrading, and heavy oil upgrading for both grassroots and revamp configurations. Licensed and marketed by Elessent Clean Technologies, the IsoTherming® technology has been licensed in 30 refineries worldwide with capacities ranging from 1,500 bpd (82 kmta) to 80,000 bpd (3,900 kmta), offering refiners a lower CAPEX and OPEX solution than conventional hydroprocessing options. Learn more at IsoTherming.ElessentCT.com.



About Elessent Clean Technologies

Elessent Clean Technologies is a global leader in process technologies to drive sustainability and carbon neutrality in the metal, fertilizer, chemical and oil refining industries with an unwavering commitment to customer support. We provide extensive global expertise across our portfolio of offerings in key applications – MECS[®] sulfuric acid production, STRATCO[®] alkylation, BELCO[®] wet scrubbing and IsoTherming[®] hydroprocessing. Offering critical process equipment, products, technology and services, we enable an array of industrial markets, including phosphate fertilizer, non-ferrous metals, oil refining, petrochemicals and chemicals, to minimize their environmental impact and optimize productivity. We are dedicated to helping our customers produce high-quality products used in everyday life in the safest, most environmentally-sound way possible, with a vision to make the world a better place by creating clean alternatives to traditional industrial processes. Learn more at www.ElessentCT.com.

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