

National Energy Exploring the Use of Alternative Marine Fuels in Trinidad and Tobago

As part of its mandate, National Energy Corporation of Trinidad and Tobago Limited (National Energy) is responsible for the ownership and operation of marine and other infrastructural assets to facilitate the operations of all downstream energy projects. Currently, the Company owns and operates a fleet of ten marine vessels, the Savonetta Piers at Point Lisas and the Port of Galeota. National Energy also owns assets at the Port of Brighton which is managed by its sister company La Brea Industrial Development Company Limited (LABIDCO).

With the International Marine Organization's (IMO's) decision to limit the sulfur content for ship fuel from January 2020, and the recently adopted resolution to reduce greenhouse gas (GHG) emissions by 50% by 2050, National Energy recognised the impact that such regulations would have on the operations of its ports and vessels transiting through Trinidad and Tobago's major port facilities.

Leading providers of risk management and quality assurance services to the maritime, oil and gas, power and renewables industries have stated that these IMO regulations will dramatically change the future fuel mix for ships. Many ships today use diesel engines, which means that to meet these new regulations, many ship operators with traditional propulsion plants and marine fuels, may have to install expensive exhaust after-treatment equipment or switch to low-sulfur diesel or alternative fuels with properties that reduce engine emissions below mandated levels.

This change will have far reaching implications on international shipping trade, the cruise industry, and particularly ship owners and operators.

The new regulations have therefore brought alternative fuels to the forefront as a means of achieving compliance. This is especially true given that the current and potential proliferation of Emission Control Areas (ECAs) is creating strong incentive for ship owners and operators to explore the use of alternative fuels to satisfy sulfur oxide (SOx) and nitrogen oxide (NOx) limits.

The proposed alternative fuels for shipping, include LNG, LPG, methanol, biofuel and hydrogen as the most promising solutions. Among these, LNG has already overcome the hurdles of international legislation and is the most prolific alternative with around 500 ships in operation or on order, and applications around the globe and in most ship segments. In addition to LNG, methanol is viewed as a safe, clean-burning and cost-effective globally available marine fuel. In November 2020, the IMO approved interim guidelines for the use of methanol in ships.

Opportunities for National Energy

Trinidad and Tobago is in a unique position to exploit the development of the alternative marine fuel bunkering market in the region. As a major producer of LNG and exporter of methanol, our long history and understanding of alternative fuels technology and markets puts us in a strategic position to respond to changing demands within the maritime sector.

National Energy as a member of the NGC Group is already exploring the development of alternative fuel bunkering facilities at Trinidad and Tobago's ports. Given its access to both LNG and methanol volumes (through the Group's shareholdings), the development of such facilities will ensure the country's compliance with IMO MARPOL Annex VI legislation.

Additionally, Trinidad and Tobago's proximity to the Panama Canal puts it in a strategic location to take advantage of potential maritime traffic navigating through the Gulf of Paria and Caribbean Sea. These international vessels will have to comply with IMO regulations and will require low-sulfur fuel options. As a provider of port and marine assets, the availability of alternative low-carbon fuels at its facilities offers a new revenue stream for National Energy and reduces our carbon footprint.



National Energy's tugs unberth one of Waterfront Shipping's (a subsidiary of Methanex) methanol-fueled ships at Savonetta Pier 4 on August 19, 2021. PICTURE SATAISH RAMPERSAD

At a national level, there are several advantages which can be realised from the provision of low carbon alternative marine fuels:

- Achievement of SOx and NOx compliance.
- Access to markets for low-carbon alternative fuel within the Caribbean and Latin American region.
- Achievement of national and regional energy targets re the reduction of GHG emissions.

Moreover, there are several potential benefits for National Energy and by extension the NGC Group if the aforementioned actions are taken. They include:

1. Establishing itself as the low-carbon alternative marine fuels' hub for the region through the provision of requisite facilities for importing, storing, reloading and other related low-carbon alternative fuel vessel services.
2. Assisting the local maritime industry in meeting the sustainability challenge by complying with stricter emission standards.
3. Generating income from becoming a physical and trading hub for alternative marine fuels.
4. Achieving a competitive advantage for supplying low-carbon alternative fuel (including bunkering), with the potential for expanding its customer base.

As the sector transitions, it is critical that we stand ready to implement all viable opportunities that may knock on our door in the future. Pursuing alternative low-carbon and zero-carbon fuels align well with our growth strategy and is a key Greenhouse Gas mitigation measure for the maritime sector.



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