

This abstract will be presented during LNG2023 conference on 10-13 July in Vancouver, Canada among many other innovative projects, ideas and outlooks. LNG2023 will provide a unique platform for the global LNG industry and key stakeholders to discuss, debate, and showcase the latest industry developments and opportunities.



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#### MLA INNOVATION - INTRODUCING THE AUTOMATIC ELECTRIC MARINE LOADING ARM (E-MLA)

Hydraulic drives have exclusively been used where there is a need for a powered marine loading arm (MLA). All driving-related operations – parking/unparking, connecting/disconnecting to/from the ship manifold – are manually controlled using a remote-control unit. This technology has a proven record. However, the energy industry moves toward greener, simpler, safer and more cost-effective solutions. To this end, the automatic electric MLA (e-MLA) is a game changer:

- Electrical drives offer great position control allowing, more easily than with hydraulic drives, the automation of the MLA operations. The complex and spread hydraulic tubing inherent to hydraulic drives is eliminated.
- Automation lowers down drastically the level of human intervention that is normally required. All sequences, from parked and connected attitudes, are automatically and seamlessly performed. The automatically MLA is one of the bricks in the fully automated jetty operation which will enable completely unmanned operations at medium term.

T.EN Loading Systems has completed a development program to design and qualify an e-MLA with the Auto Drive control. A pilot unit is under construction and will be operational mid-2023 in T.EN Loading Systems facilities to demonstrate the solution. It features five LNG 60' e-MLA – one real and four simulated – with the full control system package including automatic mode and advanced condition-based monitoring functions.

To view the full conference agenda, visit <https://www.lng2023.org/lng-programme-overview>