

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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THERMOELECTRIC VAPORIZER FOR ADVANCED LNG COLD ENERGY UTILIZATION

A huge amount of low-potential energy is wasted during LNG gasification. As a rule, energy from renewable sources or thermal waste is used. Converting even a small part of this energy into electricity can have a significant economic and environmental effect.

The developed system of electricity generation using the latent heat of LNG based on the use of a thermoelectric generator provides a reduction in the cost of electricity by order of magnitude compared to existing machine ORC systems. According to the results of experimental studies, the electrical energy cost of such a generator is estimated as $LCOE=0.015$ \$US/kWh. Due to the solid-state design of the generator, the system provides high reliability, small dimensions, and independence from the scale factor. These qualities will contribute to the wide use of such thermoelectric vaporizers-generators in distributed LNG systems.

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