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.

## LEAD AUTHOR



Brett Wink Engineering Manager, Woodfibre LNG

CO-AUTHORS

Homayoun Heidari Engineering Manager McDermott

Christopher Ott Sr. Process Engineering Associate Air Products and Chemicals, Inc

Christopher Elko Sr. Pr. Machinery Engineer Air Products and Chemicals, Inc.

## WOODFIBRE LNG FACILITY: TECHNICAL CHALLENGES AND SOLUTIONS

The Woodfibre LNG (WLNG) facility will be located at the former Woodfibre Pulp and Paper Mill site in Nexwnnewu7ts Átl'ka7tsem (Howe Sound), approximately seven kilometers south of Skwxwú7mesh (Squamish). The WLNG facility will be on the historical location of the Skwxwú7mesh Úxwumixw (Squamish Nation) village known as Swiýát. The WLNG facility includes a land-based natural gas processing and liquefaction facility with Air Products AP-C3MR<sup>™</sup> technology with electric motors, marine facility, and supporting infrastructure. The site can only be reached by sea or helicopter. Natural gas is supplied from Fortis BC distribution pipelines and greener LNG will be produced using electric power supplied by BC Hydro. The facility design requires that numerous challenges be addressed to achieve the project installation and operational objectives. The location of the facility, its connection to adjacent utilities and limitations of the available plot space, coupled with the site's limited access and marine and offshore LNG storage and offloading requires unique technical solutions for each of these challenges.

Solutions to these challenges are described in detail:

- 1. greenhouse gas emissions reduction
- 2. regulatory & environmental restrictions
- 3. geotechnical conditions & soil improvement programs
- 4. modularized construction approach
- 5. electrical system power factor correction & harmonic distortion control
- 6. LNG storage & offloading arrangement for LNGC berthing & loading

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