



2014 AWARDS FOR ENGINEERING EXCELLENCE

Award of Merit

Inuvik LNG for Community Electricity - Power for the People



Consultants

Associated Engineering

Owner/Client

NT Energy

Category

Energy & Industry

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The Far North places considerable hardship on its people. Projects must address compounding challenges such as extreme weather, variable daylight hours, remoteness from materials and labour, and high costs. At the same time, hardship breeds innovation and perseverance. When the nearby natural gas well ran dry, the town temporarily switched to diesel to fuel its electrical generators. Associated Engineering led a team that looked at liquefied natural gas (LNG) for producing electricity, due to its lower cost and environmental benefits. The team designed and provided construction services for new LNG storage and vapourization equipment. This allowed the mothballed gas generators to be brought back into service to help keep Inuvik's lights shining through the long arctic winter.

As the first installation this far north in Canada, the team developed solutions to address the extreme weather conditions and scarcity of materials and skills. Innovations included a unique containment system using local materials; low temperature equipment with appropriate weather protection; and foundation slabs to preserve the permafrost layer. Using a waste heat source from the plant to vapourize the LNG eliminated the need for large ambient air vapourizers, thereby reducing equipment costs and containment area size and simplifying equipment procurement and construction.

This fast-tracked project was completed within targets, and today, Inuvik enjoys a secure supply of LNG to address electricity needs well into the future. This project provides a successful template for similar LNG infrastructure in the North.