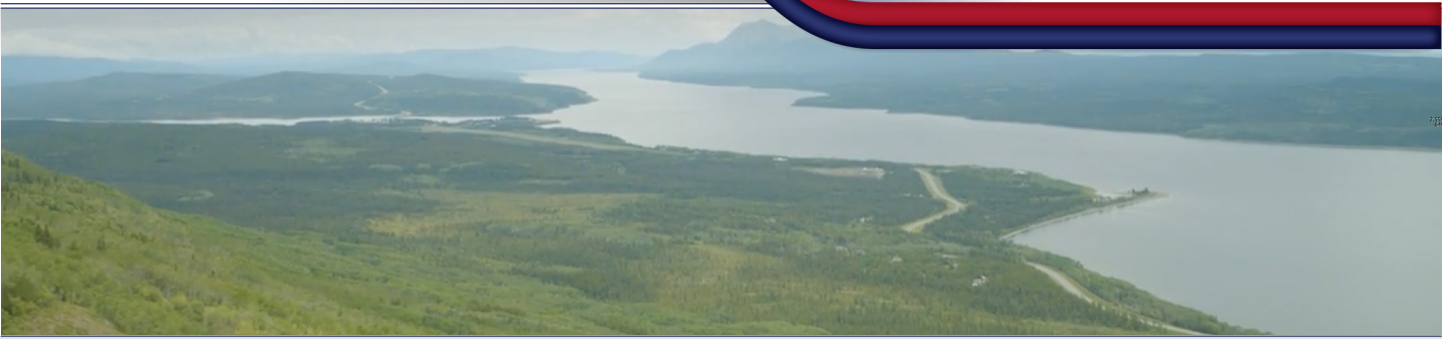




Teslin Biomass Project



In 2017, the Teslin Tlingit Council of Teslin, Yukon proceeded with a district-heating project that would use locally-sourced wood chips for fuel. The biomass district heating provides cost-efficient heating of large areas and creates an anchor client with guaranteed demand for the community sawmill. In the future, additional buildings can be easily included in district heating. The biomass project delivers local and regional economic benefits through the sawmill and the community's participation in providing biomass wood-waste from permitted timber harvesting and incidental harvesting of wood-waste. The permitted timber harvesting also reduces the high fire-risk from the significant over growth in the surrounding forest.

Ten wood chip boilers are housed in three separate energy centres. The challenge was to move the hot water as efficiently as possible from the three energy centres to the ten buildings being heated.

Isonor Inc. supplied Uponor Ecoflex® pre-insulated pipe in several sizes for below-ground installation from the energy centres to the buildings. Different sizes of pipe were used due to the varied heating loads of the buildings. Ecoflex is light-weight and flexible making it easy to install. The service pipes are made from PEX-a tubing and are surrounded by multilayer PEX-foam insulation and covered by a corrugated, water-proof HDPE jacket for long-term efficiency. As the pipe is flexible, no splices were needed. The 3500 total feet of Ecoflex pre-insulated pipe used consists of Thermal Single, Thermal Twin and Thermal Single with Heat Trace. The fittings were WIPEX™ dezincification-resistant (DZR) brass compression fittings. Both the piping and the fittings are CSA approved. Isonor Inc. also provided on-site training of the installation of the Ecoflex.

The Teslin biomass project is part of a ten-year planning cycle for economic and energy self-sufficiency for the community. It turns waste into resources. Use of the wood-waste for district heating disposes of the waste in an environmentally and economically beneficial method for the community. The permitted timber harvesting also provides fire-risk mitigation for the region. The Ecoflex® pre-insulated piping systems provided by Isonor Inc. are durable and virtually maintenance-free; exactly what our customer needed. ■

