

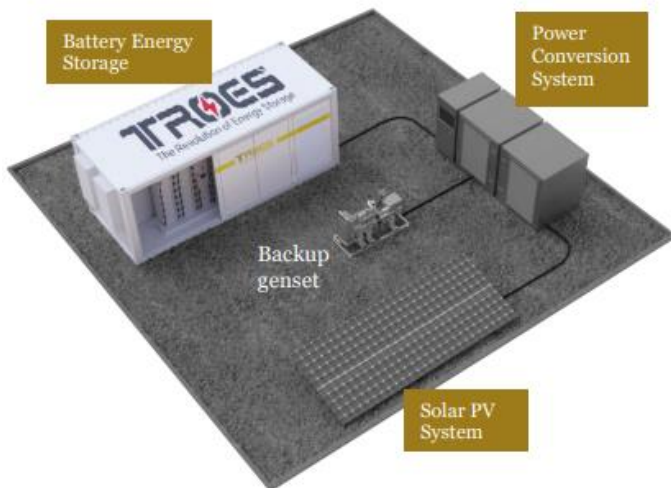
OFF-DIESEL

First Nation Reserve with Battery Energy Storage System



CLIENT CHALLENGE

A First Nation Reserve community in Ontario spends over \$1 million dollars annually on diesel fuel for its electricity microgrid. The output is unreliable as power goes out at least once every week, while the emissions pose serious health risk, with WHO recently classifying diesel fumes as a carcinogen, “a major cancer risk”.



FINANCIALS & BENEFITS

A modeling was done based on existing load profile where a 1 MW solar PV system and a 4.5 MWh BESS was integrated to the community’s 500 kW diesel generator. The annual fuel cost savings from this installation was over half a million dollars. This configuration also allows the generators to operate at their optimal frequency, thus reducing annual O&M costs along with the noise and emission levels.

ABOUT THE SYSTEM

TROES’ Battery Energy Storage allows integration of solar PB system to the existing microgrid to reduce diesel consumption tremendously. Such integration would allow the diesel generators to operate at optimum frequencies, reducing operation hours and curbing the emissions.