

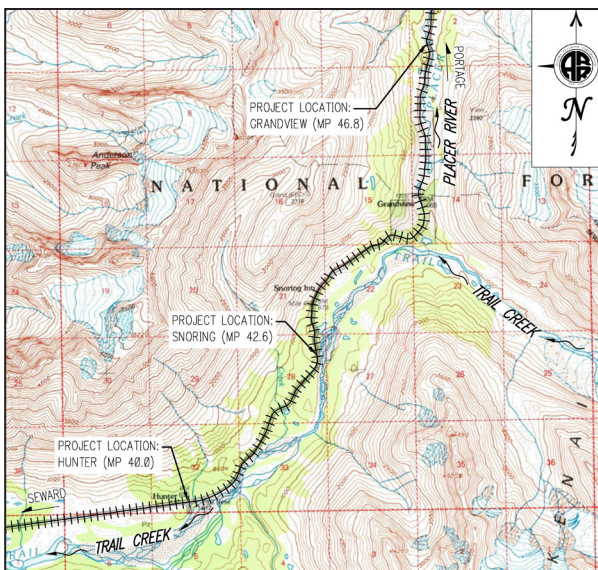
Communications Sites Power Generation

Project Scope

The Alaska Railroad (ARRC) plans to replace Altrex solid oxide fuel cell (SOFC) power generation systems at three remote communications sites. New systems will include a propane generator that accesses fuel from existing propane tanks through a new buried hose.

Communications sites along the ARRC route support train operations via radio communication with train crew, and enabling data flow that informs signal devices and components of the positive train control system. Telecommunications and wayside equipment – some housed in shelters or huts – are connected to various electrical power generation systems. In urban areas, communications sites have access to commercial power, but along remote stretches of track, equipment must be powered with on-site systems that are hardy and reliable.

Hunter (ARRC MP 40), Snoring (MP 42.6) and Grandview (MP 46.8) are remote sites located on



the south end of the route, between Portage and Seward. Over the past year, SOFC systems have failed frequently. The manufacturer has provided extremely poor product support, and ultimately went bankrupt in 2019. Spare parts are no longer available for repairs, and ARRC has few on hand.

Benefits

Replacing SOFC power generation systems will:

- provide greater reliability for the operation and maintenance of communications sites;
- reduce technician support requirements; and
- improve train operational safety with robust power supply to essential infrastructure.

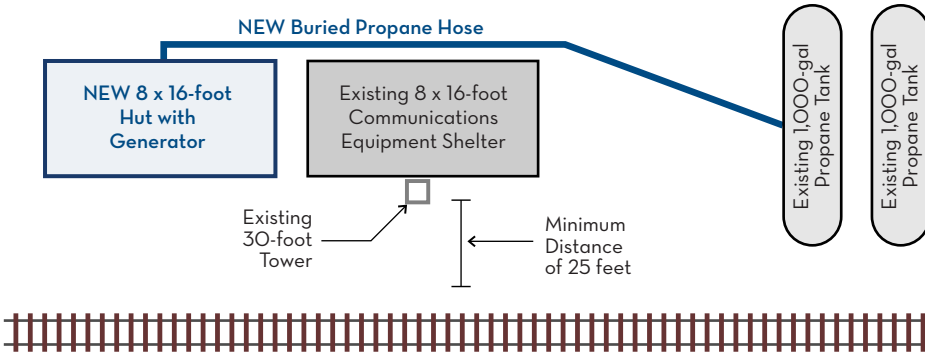
Status

- Categorical exclusion environmental analysis and documentation, as required by the National Environmental Policy Act (NEPA), submitted to the Federal Transit Administration (FTA) in June 2021. FTA review complete September 2022.
- Generator equipment and shelter materials procurement in fall 2021; received spring 2022.
- Construction to be bid late spring 2023, with a contractor selected shortly thereafter.
- Generator installation scheduled for completion by late summer 2023.

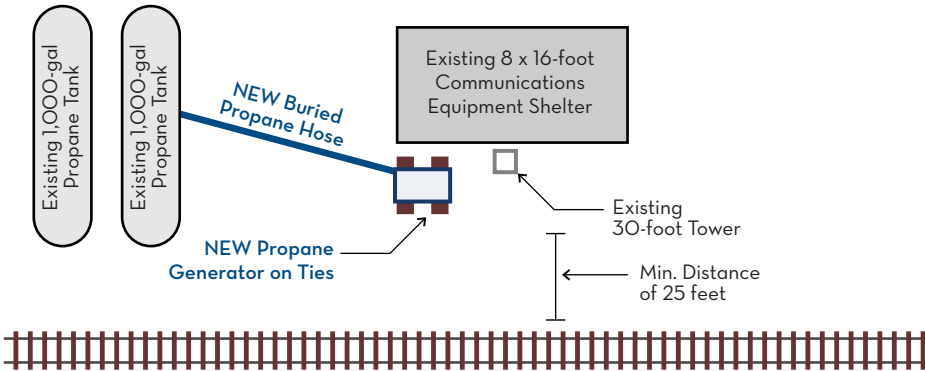
Cost and Funding

The project budget is \$303,000, with \$238,000 funded by the FTA grant money from the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). The remaining \$65,000 is funded 80% by FTA, and 20% by ARRC, as the required cash match.

Grandview Communications Site (ARRC Milepost 46.8)



Snoring Communications Site (ARRC Milepost 42.6)



Hunter Communications Site (ARRC Milepost 40.0)

