November 2017

Energy and Bulk Fuel Program

Buckland Tank Farm

Stevens Village Power Plant

Hooper Bay Wind Farm

Togiak Tank Farm

The Bulk Fuel Program was the first program established by the Commission. Congress charged the Commission with "the repair or replacement of bulk fuel storage tanks in Alaska that are not in compliance with [federal or state law]." In 1998, virtually every tank farm in rural Alaska needed significant upgrades in order to be code-compliant, and there was a very real threat that communities would no longer be able to receive fuel in bulk quantities due to the substandard condition of their tank farms. Based on a statewide prioritized list developed by the Alaska Energy Authority (AEA), the Commission has funded the construction of new fuel storage facilities in approximately 110 communities to date. Commission funds are typically combined with contributions from the State of Alaska and/or other entities such as the local village corporation, Alaska Village Electric Cooperative (AVEC), etc. To date, the Commission has provided $225 million, combined with approximately $45 million in match, for the Bulk Fuel Program. AEA estimates the remaining unmet need at approximately $170 million (as of May 2017).

The Bulk Fuel program is largely funded through an annual allocation from the Trans-Alaska Pipeline Liability (TAPL) Fund, which has ranged from $2 to $11 million over the last 18 years. Beginning in FY2018, annual TAPL funding is expected to level off at about $1.7 million for the next five years. Due to decreased funding, and because many of the new bulk fuel facilities constructed by the Commission are now at least 10 years old, the Commission's future bulk fuel investments will focus on renovation, training, maintenance/repair and barge header upgrades.

The Bulk Fuel Program quickly evolved to include rural power system upgrades, including electric interties for closely-paired villages and renewable energy micro-grid projects. The Commission has also invested in emerging technologies and various energy planning, efficiency and conservation initiatives.

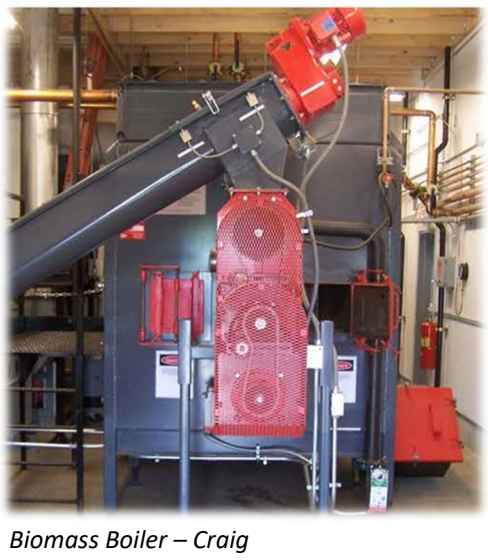
To date, the Commission has provided over $240 million for power system and intertie projects based on project priority lists developed in partnership with AEA and AVEC. The majority of these funds have come from the Commission's Energy and Water Appropriations (Base funds), and USDA Rural Utilities Service (RUS) funds transferred directly to the Commission. These funds have been combined with another $225 million of match funding from partners such as AEA and AVEC. AEA estimates the unmet need related to rural power system upgrades is $200 million. Another $250 million is needed for interties according to AVEC. The *Alaska Affordable Energy Strategy* estimates $20 million per year is needed to protect, maintain and sustain existing rural power system infrastructure.

Over the years, the Commission has provided $50 million for wind/microgrids, hydro, biomass, geothermal, and emerging technologies such as hydrokinetic river turbines. Most of these investments were in partnership with the State of Alaska who created a Renewable Energy Fund (REF) in 2008 and an Emerging Energy Technology Fund (EETF) in 2010. To date, the State has appropriated over $265 million for these two Funds. Note that this figure does not include direct legislative appropriations for specific projects. Note too, that in 2012 Commonwealth North estimated an additional $2 billion was needed for wind/micro-grids, renewables, and emerging technologies.

More recently, the Commission has invested approximately $25 million in projects and initiatives specifically related to energy planning, efficiency and conservation. While AEA, AVEC and the US Department of Energy also operate in this space, the Commission's primary partner for these types of projects has been the Alaska Native Tribal Health Consortium (ANTHC). In particular, we have supported their Sanitation Energy Efficiency Program which strives to reduce energy consumption in rural water supply and wastewater treatment systems. The unmet need for rural community energy efficiency is difficult to quantify, but it is certainly many tens of millions.

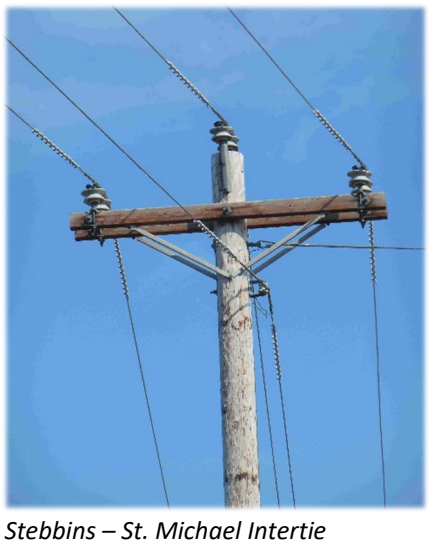
The Commission currently has approximately $7 million available each year for all energy related projects and initiatives. Similar to the Bulk Fuel Program, future energy related investments will focus on renovation, training, maintenance and repair of existing infrastructure. However, we will continue to set aside some funds specifically for energy efficiency/conservation related initiatives and projects.

Oceana Hydrokinetic River Turbine



Biomass Boiler – Craig

Waste Heat Recovery – Yakutat



Stebbins – St. Michael Intertie