

Meera Kohler **President & CEO Board of Directors** Chairman Charlie Curtis, Kiana

Vice Chairman Walter G. Sampson, Noorvik

Secretary Phyllis Clough, Old Harbor

Treasurer Helena R. Jones, Ambler

Robert L. Beans Sr., Mountain Village

Peter Demoski, Nulato

Fred Sagoonick, Shaktoolik

Communities Served

Ambler Andreafsky Anvik Brevig Mission Chevak Ekwok Elim Emmonak Gambell Goodnews Bay Grayling Holy Cross Hooper Bay Huslia Kaltag Kasigluk Kiana Kivalina Koyuk Lower Kalskag Marshall Mekoryuk Minto Mt. Village

Alakanuk

New Stuyahok Nightmute Noatak Noorvik Nulato Nunapitchuk Old Harbor Pilot Station Pitkas Point Quinhagak Russian Mission St. Mary's St. Michael Savoonga Scammon Bay Selawik Shageluk Shaktoolik Shishmaref Shungnak Stebbins Togiak Toksook Bay Tununak Upper Kalskag Wales



Alaska Village Electric Cooperative, Inc. 4831 Eagle Street Anchorage, AK 99503 (907) 561-1818 (800) 478-1818

AK-105

Major Energy Projects Under Consideration for Alaska

- Susitna/Watana hydro: This 600-megawatt dam is on the Susitna River system about 100 miles south of Fairbanks. It could be online in late 2023 and would supply half of "Railbelt" electric needs. It would generate 2.8 gigawatt-hours and was estimated in 2010 to cost \$4.5 billion. There is no provision for rural Alaska.
- "Bullet Line" gas pipeline from the North Slope to Fairbanks and Anchorage: Would deliver about 250 million cubic feet a day of natural gas to serve the electric and heat loads in the Railbelt. This project is estimated at \$7.5 billion and could have gas flowing in 2019. There is no provision for rural Alaska.
- Large diameter pipeline: Under consideration as a mechanism to move 4 billion cubic feet a day from the North Slope to the Lower 48. A tap would deliver gas to Fairbanks and Anchorage. Debate is active on whether the gas would be shipped via pipeline across Canada or if it would be liquefied in either Nikiski or Valdez and transported by ship. It is unlikely the pipeline would deliver gas before 2025. The price tag on this project was pegged at \$40 billion several years ago. There is no provision for rural Alaska unless a system is developed to ship liquefied gas via barge to port facilities that do not yet exist in rural Alaska.
- Interior gas exploration project: Doyon is seeking gas resources in Interior Alaska and hopes to find and produce substantial natural gas to serve much of Alaska. The cost and timeline for a successful system development are unknown.
- Cook Inlet gas renaissance: Significant gas reserves have been identified in Cook Inlet, which has been producing oil and gas since the 1950s. Existing fields are near depletion and Southcentral utilities expect gas shortages within the next few years. Utilities may have to import LNG until Alaskan gas becomes available—either via pipeline from the North Slope or Interior, or from local finds. New finds will be significantly more expensive to develop, so we can expect the cost of electricity and heat to rise accordingly. Costs are unknown and there is no provision for rural Alaska.
- Coal gasification: Considered by Cook Inlet Region Inc. to meet Railbelt energy needs but costs and timelines are not available.
- LNG import: Actively contemplated by Railbelt utilities as a short-term (and possibly longterm) solution to replace the depleted Cook Inlet gas fields. The cost of delivered LNG is estimated at \$15 per mcf, which is almost three times what utilities currently pay. Again, there is no provision for rural Alaska.
- Electricity by wire from the North Slope: This is the All-Alaska Energy Plan that AVEC and its partner, Marsh Creek LLC, are pursuing. Large-scale generation using highly efficient gas turbines could deliver power across Alaska at an average cost (wholesale to the utility) of less than 10 cents per kWh. This would be inexpensive enough to allow the use of electricity as heat across the state and would displace more than 500 million gallons of diesel fuel used for heat and electricity. The cost of the power plant and transmission system would be about \$5 billion and it would deliver about eight times as much electricity as the Susitna/Watana project. It would address rural Alaska's energy needs and provide critical energy to operate our resource industries.