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AEA selects Susitna

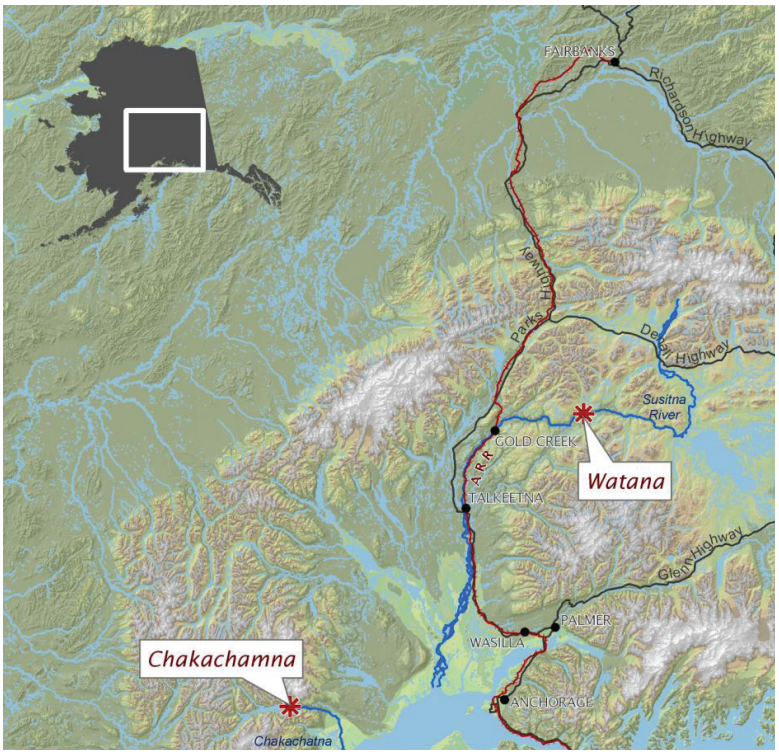
The Alaska Energy Authority has determined a site on the Susitna River should be considered the primary hydroelectric project for the Railbelt. A Chakachamna Lake hydro project may be an alternative, but for now Susitna should be the focus of efforts to add another hydro resource to the region's generation mix. AEA reached its conclusion after studying both projects and others, and released its decision on Nov. 24. The legislature provided funding for the review.

The idea of a hydro project on the Susitna River has been around for decades, and received serious study by both federal and state governments. Various concepts were studied, and by the mid 1980s the state had settled on the idea of a 2-dam with more than 1600 megawatts of capacity. A dramatic drop in oil prices, coupled with the availability of plentiful inexpensive natural gas for generation, caused plans to be shelved.

The current Susitna proposal benefits from the extensive study that was done in the past, but is a very different project than what had previously been pursued.

The option studied and recommended by AEA is referred to as "low-Watana non-expandable". It would build a single dam, 700-feet high, at a site called Watana about 15 miles upstream from Devils Canyon. The project would have 600 megawatts of generation, providing an estimated yearly output of 2.6 million megawatt-hours of energy – about equal to Chugach's annual power sales.

If completed in time, the project would help the state achieve its goal of producing 50 percent of its power from renewable and alternative resources by 2025.



Courtesy of Alaska Energy Authority

The project is in line with what Chugach has been advocating in Juneau. For the past few years Chugach has been saying the AEA should study a "right-sized" Susitna project – one that can significantly reduce the amount of power generated with fossil fuels but is neither too big to be a good operational fit nor too expensive to finance and construct. A 600-megawatt project fits that description.

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Cook Inlet gas situation complicates wind integration

Deliverability challenges make it difficult to compensate for variability

A recent study completed on the proposed Fire Island wind project identified gas deliverability as a challenge for efficiently regulating wind in a cost-effective way. "Deliverability" refers to the ability to provide gas to the consumer at the exact time that they need it.

Cook Inlet's declining gas supply continues to present challenges to utility operators. Gas suppliers and pipeline operators require utilities to schedule their needs in advance of actual delivery. To meet the point-in-time demand for gas, Chugach is required to forecast the amount of gas that will be required for each hour of the following day.

This advance scheduling is required to meet all shippers demands and keep pipeline pressures at proper operating levels. If one shipper takes more or less gas than scheduled it can cause both operating and contractual problems.

For Chugach the primary benefit of a wind project is displacing a portion of the gas used to generate power. Unfortunately, the wind resource is unpredictable. Utilities do not know when or how much

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Chugach and other utilities have pointed to the Bradley Lake model as an example of how the state and utilities can work together to create a successful project and benefit Alaskans. Bradley Lake is a 100-mw hydro project near Homer built and owned by the state but operated by the utilities. It is overseen by a project management committee comprised of representatives of both the utilities and AEA. The state financed the project by grant funding about half the cost and bonding for the rest. Railbelt utilities signed up to purchase the projects annual output. The price being paid allows the State to recover the cost of the debt and the grant funds over the life of the project. The AEA report considers a similar approach for a Susitna hydro project.

The AEA report can be found at www.akenergyauthority.org. The Agency plans to hold public workshops on its findings in February. {115133}

Wind (cont'd from page 1)

the wind is going to blow in any given hour. It is this variability that would impact gas transportation and production schedules. Based on Cook Inlet pipeline rules, utilities cannot routinely take more or less gas than scheduled. Because of the small economies of scale in Cook Inlet, changing gas nominations by just a little equates to changes that are unacceptable to the companies that supply and transport gas.

While wind can reduce the overall need for gas, it can cause greater variability that impacts the ability to get gas when Chugach needs it most.

Chugach is continuing to evaluate wind as a viable energy resource, as well as all renewables to diversify power supplies and provide long term stable pricing.

Storage will help

Utilities have a need for gas storage, and Chugach, Municipal Light & Power and ENSTAR have been working together on a plan to develop it. A subsidiary of ENSTAR has filed for state permission to become a utility and develop a storage facility using a depleted gas reservoir near Kenai. On a fast track, the storage facility could be available by the winter of 2012-13 – a time of concern due to current unmet needs for ENSTAR. A storage facility will provide a place for gas to flow to during times of lower demand – and flow from as customer demand rises. Chugach may add and pull gas daily from a facility, but there will probably be a limit to the number of transactions allowed each day. The use of this storage will also need to be scheduled one day in advance, so is unlikely to provide a flexible fuel supply for wind integration.

Member number hide-n-seek Find your member number {in brackets} in the Outlet and get a $100 credit on your electric bill. Call Chugach's service center at 563-7366 to claim your prize.

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Danger tree hotline	762-7227
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Underground locates	278-3121
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or	276-6222
To report a power outage	
In Anchorage	762-7888
Outside Anchorage	(800) 478-7494

CHUGACH
POWERING ALASKA'S FUTURE

Hours

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Corporate Mission: Through superior service, safely provide reliable and competitively priced energy.

Corporate vision: Powering Alaska's future

Monthly residential service costs
(based on 700 kwh)

Customer charge/month	$ 8.00
Energy charge $0.070630 x kwh = (effective 11/15/10)	$49.44
Fuel $0.042980 x kwh =	$30.09
Purchased power $0.004070 x kwh =	$ 2.85
(Fuel & purchased power adjustmants effective 10/1/10 - 12/31/10)	
Subtotal	$ 90.38
2% MOA Underground Charge =	$ 1.82
RCC $0.000552 x kwh =	$ 0.39
Total bill	$92.58

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