

Fire Island Wind

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Table of Contents

1. Summary
2. Background
3. Project economics
4. Regulatory Approval
5. Current Status

Summary

The first phase of the Fire Island Wind project, which began operation in September 2012, is expected to provide up to 17.6 MW of electricity to the Chugach Electric utility in Anchorage. The cost of this project is expected to be partially offset by state and federal grants, with the electricity generated sold to the utility for 9.7 cents/kWh. The project was embroiled in controversy over both project economics and proposed rate increases, but was given regulatory approval and construction began in Fall 2011. In November 2013, CIRI announced (<http://www.adn.com/2013/11/10/3168941/wind-power-capacity-at-fire-island.html>) an expansion of capacity to be installed by 2015. However, this expansion was put on hold when no buyer (<http://www.adn.com/article/20150129/no-buyers-power-fire-island-wind-delays-adding-turbines>) for the power could be found.

Background

The Fire Island Wind project is a wind farm located just west of Anchorage. The project was developed by Fire Island Wind LLC (<http://www.fireislandwind.com/>), a wholly owned subsidiary of the Cook Inlet Regional Corporation (CIRI) (<http://www.ciri.com/content/home/index.aspx>). In the first phase of construction, the farm includes 11 turbines, capable of generating a total of 17.6 MW of electricity. On average, this would supply around 5.5 MW, or a total of 48,500 MW-hours of electricity annually to the Chugach Electric Association (CEA) (<http://www.chugachelectric.com/>), enough to power around 6,000 homes. This electricity will replace around 500 million cubic feet of natural gas consumption, which represents about 4% of Chugach's load.

Originally the project was designed to be three times as large, but was scaled down over concerns regarding integration with the existing Railbelt grid (/Issues/Infrastructure/Railbelt-Electrical-Grid.html). Expanding the project in the future should be relatively easy, now that expensive transmission lines are completed.

Project economics

The first phase of the project was expected to cost around \$65 million (<http://www.irwindigital.com/projects/fiw/>) for the construction and installation of turbines and other infrastructure on the island. A power transmission line to

Anchorage was expected to cost an additional \$25 million, and was to be paid for by various state grants. This transmission line has the potential to be used by other projects, such as a proposed tidal energy project nearby (</Issues/RenewableEnergy/Tidal-Power-Cook-Inlet.html>).

Under the current agreement, CIRC will sell power from the project to Chugach at 9.7 cents/kWh for 25 years. While this is more than Chugach currently pays for electricity generated by natural gas combustion, it's expected that as gas supplies dwindle and gas costs increase wind power will eventually prove to be less expensive. This is also very comparable to the price that power from the Eva Creek wind project (</Issues/RenewableEnergy/Eva-Creek-Wind-GVEA.html>) near Healy is expected to cost (9.8 cents/kWh).

Regulatory Approval

While CIRC and Chugach initially reached an agreement on the purchase of power from the Fire Island Wind project, their filing still had to be approved by the Regulatory Commission of Alaska (RCA). During the public comment period in summer 2011, the RCA received numerous comments (<http://rca.alaska.gov/RCAWeb/Dockets/DocketDetails.aspx?id=b45d064a-a542-4588-bccf-a409b850f11c>) from the public, the vast majority of which were in favor of the project. Those opposed to the project primarily cited concerns about proposed rate increases and about the need to scramble for federal

funding to make the project viable. Other concerns were raised about the relative utility of this project versus hydropower and about the possible effects on bird and bat populations.

In addition the RCA received comments (<http://rca.alaska.gov/RCAWeb/ViewFile.aspx?id=46585DC4-49B2-4589-B51D-370F9F4F77BC>) from Municipal Light and Power (ML&P), also located in Anchorage. ML&P was concerned about the difficulty of integrating Fire Island Wind power into the exiting Railbelt infrastructure without creating rate increases for even non-Chugach customers.

Chugach was given the opportunity to respond to all comments, and did so (<http://rca.alaska.gov/RCAWeb/ViewFile.aspx?id=b24fb357-d3ca-4961-8e4d-cd8094853fc9>) on August 4th, 2011. However, on August 8th, 2011 the RCA suspended the filing by CIRC and Chugach, citing the ML&P concerns:

"Chugach's rate impact projections are based upon assumptions that are not supported with sufficient detailed back-up either in TA335-8 or in Chugach's supplemental filing. We required Chugach to specifically reply to the adverse comments filed by the public and ML&P.

Chugach responded in its supplemental filing but we do not believe the response adequately addressed the comments. We cannot approve the PPA based on the existing record. We suspend TA335-8 for an initial period of six months until Tuesday, February 8, 2012."

-from RCA suspension order (<http://rca.alaska.gov/RCAWeb/ViewFile.aspx?id=d90a7308-a00c-4d50-a2dc-a11a58371deb>), August 8th, 2011 (TA335-8 is the filing number of the power purchase agreement (PPA))

In October, the RCA decided to allow the project to proceed (<http://www.alaskadispatch.com/article/alaska-regulators-approve-fire-island-wind-power-project>).

Current Status

The wind farm began producing power (<http://www.alaskadispatch.com/article/fire-island-turbines-now-producing-wind-power-southcentral-alaska>) on September 21st 2012. In November 2013, CIRI announced (<http://www.adn.com/2013/11/10/3168941/wind-power-capacity-at-fire-island.html>) plans to double the capacity of the farm (11 more turbines) by 2015. Construction was ongoing into 2014 and CIRI was looking (<http://www.petroleumnews.com/pntruncate/697487603.shtml>) for customers for the additional power. Failure by early 2015 to find a buyer (<http://www.adn.com/article/20150129/no-buyers-power-fire-island-wind-delays-adding-turbines>) for the power has put the expansion plans on hold.

Further Reading

- > [Fire Island Wind project page by Fire Island Wind LLC. \(http://www.fireislandwind.com/\)](http://www.fireislandwind.com/)
- > [Renewable Energy Alaska Project \(REAP\) page on Fire Island Wind \(http://alaskarenewableenergy.org/fire-island-wind-comments-due-july-25/\)](http://alaskarenewableenergy.org/fire-island-wind-comments-due-july-25/)
- > [Regulatory Commission of Alaska \(RCA\) page on the purchase agreement filing between CIRI and Chugach \(http://rca.alaska.gov/RCAWeb/Dockets/DocketDetails.aspx?id=b45d064a-a542-4588-bccf-a409b850f11c\)](http://rca.alaska.gov/RCAWeb/Dockets/DocketDetails.aspx?id=b45d064a-a542-4588-bccf-a409b850f11c)