Fairbanks Coal-to-Liquids (CTL)

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LAST MODIFIED: 12TH AUGUST 2019
CREATED: JAN. 19, 2018



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Background

The Fairbanks Economic Development Corporation (FEDC) (http://www.investfairbanks.com/) has recently proposed a 20,000-40,000 barrels per day combined biomass and coal-to-liquids (CoalToLiquids.html) (CTL) plant to provide jet fuel to nearby military bases (primarily Eielson Air Force Base (http://www.eielson.af.mil/)). The FEDC commissioned a $550,000 study (http://www.newsminer.com/news/alaska_news/rep-young-wrangles-millions-for-carbon-sequestration-study-in-alaska/article_5623c949-5d6c-5e18-b2bb-bca31a647729.html) to examine the feasibility of the project. Additionally, in 2008 the US Senate Appropriations Committee approved $10 million (http://www.investorvillage.com/mbthread.asp?mb=237&tid=5586120&showall=1) towards this project. The plant itself is expected to cost several billion dollars, which doesn't cover carbon capture technology (LowCarbonCoal.html), transportation costs of coal or fuel (including the creation of a new railroad line from Healy), or the creation of new hookups to the electrical grid.

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This facility would require a 500-600 megawatt traditional coal-fired plant to power the operation, with some of this power expected to be sold back to the grid. As a conventional pulverized coal (CoalCombustionMethods.html) plant, like others in Alaska (AlaskaCoalPower.html), it alone may release 1.5 million metric tons of the greenhouse gas CO2 per year and face a significant increase in operating costs due to a possible carbon tax (http://en.wikipedia.org/wiki/Carbon_tax). Between the coal-fired plant used to power the CTL plant, and the CTL plant itself, this facility would require 6-11 million tons of coal per year, which is four to eight times what Alaska's only coal mine, Usibelli Coal Mine (UsibelliCoalMine.html), currently produces. The proposed Chuitna Coal mine (ChuitnaCoalMine.html) might provide some coal from its estimated 12 million tons of coal per year, though this capacity might be used for the proposed Beluga CTL (BelugaCTL.html) or Tyonek CTL (/Issues/AlaskaCoal/TyonekCTL.html) plants instead.

Current Status

This project recieved a boost in early 2010 with the announcment (http://www.newsminer.com/bookmark/5336042) that $2 billion dollars of federal defense money would be used to study carbon capture in Alaska. This money has the potential to change the economics of the Fairbanks CTL project. As of late April 2010, the Air Force has continued to express interest in this project (http://murkowski.senate.gov/public/index.cfm?p=PressReleases&ContentRecord_id=a5b970b7-2dd3-4009-8411-57d81f670

*[CO2]: carbon dioxide

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