

Alaska Association of Student Governments Resolution #5 Biomass Heating in the Haines Borough Submitted by: Brennan Palmieri, Dylan Chapell Submitted: October 30, 2019

Be it Resolved by the Alaska Association of Student Governments that:

- **1.** Whereas, to satisfy the heating requirements for the high school, pool, Borough Administration Building, library, and vocational education building in Haines, AK, the current oil heating system releases 898,240 lbs of CO₂ per year;^{1,2}
- **2.** Whereas, through sustainable forestry techniques, forest biomass is carbon neutral to the extent that the carbon released by burning biomass is sequestered in the next generation of trees. Fossil fuels, a nonrenewable resource, consistently adds carbon to the atmosphere;³
- **3.** Whereas, biomass would cost \$49,537 less yearly than the equivalent amount of heating oil at the current price, after initial construction costs;^{4,2}
- **4.** Whereas, the maximum sustainable harvest of the Haines State Forest is 300 acres per year. Currently 16%, or 48 acres, is harvested per year. Only 10 acres, or a 3% increase, would be needed to accommodate a biomass facility;²
- **5.** Whereas, with \$1 million in grant funding already secured and \$1.7 million in additional funding required, the accelerated payback period would last 20 years;⁴
- 6. Whereas, from 2010 2014 the city of Craig, Alaska saved \$369,795 by heating the aquatic center, elementary school, and middle school with biomass;⁵

- **7.** Whereas, a dependency in fossil fuels subjects a community to the possibility of a catastrophic impact in local economies with the fluctuation in prices;²
- 8. Whereas, the boiler selected in this design can burn chips efficientially at a 50% moisture content. Wood from the Haines State Forest that is proposed for use in the boiler has a moisture content of 44.13%;^{4,6}
- **9.** Whereas, the total amount of greenhouse gas absorbed by a sustainably harvested forest is greater than that of a forest that is not harvested, such as a national park;⁷
- **10. Whereas,** the projected wood source for the boiler is low value timber such as cottonwood and hemlock. Harvesting these low value trees will have little impact on the market of high value timber used commercially;²
- **11. Whereas,** feasibility studies and a final design package have already been submitted to the Haines Borough by Wisewood Energy;⁴

Therefore, be it resolved that the Alaska Association of Student Governments supports the Haines Borough transitioning from heating oil to biomass heating for the Haines school, pool, Borough Administration Building, library, and vocational education building, using the final design package submitted by Wisewood.

Action Statement: If passed by the General Assembly of AASG, this resolution will be presented before the Haines Borough Assembly and the borough manager.

Sources:

- "U.S. Energy Information Administration EIA Independent Statistics and Analysis." *EIA.gov*, U.S. Energy Information Administration, 2 Feb. 2016, www.eia.gov/environment/emissions/co2_vol_mass.php.
- Weisner, Paul C. "Haines Borough Wood Source Report." CE2 Engineers, Inc., Dec. 2009, <u>https://drive.google.com/file/d/1MKrZyFDBVA1XdbtHabkChCI7sF8DhctY/view?usp=s</u> haring.
- Perschel, Robert T, et al. "Climate Change, Carbon, and the Forests of the Northeast." Forest Guild, Dec. 2007, <u>https://drive.google.com/file/d/1gDk5aGZX2_t076i7118J0-u-ibLYPPay/view?usp=sharing</u>.
- "Haines Borough Final Biomass District Energy Design Package." Wisewood Energy, 23 Apr. 2019, <u>https://drive.google.com/file/d/1QDL737msrfewlGV6NiufgHNg-</u> <u>PoV_3Q/view?usp=sharing</u>.

- Brackley, Allen M, and Karen Petersen. "Planning, Implementation, and History of the First 5 Years of Operation of the Craig, Alaska, Pool and School Biomass Heating System—A Case Study." United States Department of Agriculture, May 2016, <u>https://drive.google.com/file/d/1rtIGG_vA0JpdNggBeiLlFyi1NjM6_M85/view?usp=shar</u> ing.
- "Moisture Content of Locally-Sourced Fuelwoods." Haines High School Physical Science, Nov. 2009, <u>https://drive.google.com/file/d/1805OOPP7UrkLWC6i37uc2uWVCMa6SugE/view?usp=sharing.</u>
- Ximenes, Fabiano, and Brendan George. "Harvested Forests Provide the Greatest Ongoing Greenhouse Gas Benefits." New South Wales Department of Primary Industries, June 2012, <u>https://drive.google.com/file/d/1DcEHIFMUI6-</u> <u>r WXmmezUGN4sbZBUVr7G/view?usp=sharing</u>.
- "Wood Heating Analysis Haines Borough." Alaska Energy Engineering LLC, June 2012, <u>https://drive.google.com/file/d/18L5iD4kKR_sixAXzPkCQC-01HmCV_k0w/view?usp=sharing</u>.

Passed by the 2019 Fall Conference GA at Palmer High School

AASG Vice President, Forrest Davis

Denise Gaene-Wilkinson

AASG Executive Director, Denise Greene-Wilkinson