

Haines Borough Energy & Sustainability Commission

Stephanie Scott, Coordinator
Coordinator Monthly Report
October, 2008

Local Retail Energy Prices Steady but High

Local retail prices for the fossil fuels have not changed. Heating fuel is \$5.01-\$4.99 gallon; propane is \$4.03/gallon; diesel is \$5.18 - \$5.24 gallon; and unleaded gasoline is \$4.58 to \$4.61/gallon. (Spread sheet attached). At \$4.58 a gallon for unleaded gasoline, Haines Borough residents are experiencing a 15% increase from the average local retail price of \$3.98/gallon in June 2008. On the other hand, Thursday, Oct. 16, the price of a barrel of oil dropped below \$70 for the first time in 14 months. (*Oil Prices Slip Below \$70 a Barrel*).

http://www.nytimes.com/2008/10/17/business/worldbusiness/17oil.html?_r=2&ref=todayspaper&oref=slogin&oref=slogin). In the lower 48, gasoline prices now average \$3.08/gallon.

AHFC Home Energy Rebate Program Implements New Contact System

The Borough Clerk, Julie Cozzi, forwarded the following notice:

Alaskans may sign up at www.akrebate.com or call the toll-free number 1-877-AKREBATE (1-877-257-3228). Homeowners will be placed on a master list based on the date of their initial call, including everyone already on one or more of the lists previously maintained by individual raters.

The date in which all energy raters must get their current waitlists to AHFC is Monday, October 20, 2008. At that point the Corporation will sort all of the raters' lists into a master list that will be in order of original date of sign up, separated by region. We hope to have the master list and order up on the AKREBATE website by the first part of November.

I will continue to keep you updated on this issue and please contact me if you have any questions, comments or would like any further information.

Thanks,
Bryan Butcher, Director
Governmental Relations and Public Affairs
Alaska Housing Finance Corporation
330-8445 work
360-9859 cell

Johnny White, Haines Energy Rater, submitted his wait list to AHFC October 17th.

Wood Heat Reconnaissance/Feasibility/Conceptual Design Grant Application.

The completed application for \$140,500.00 project funds was submitted to the Renewable Energy Fund reviewers at the Alaska Energy Authority on time September 8. A CD containing the full application and all attachments has been sent to the Borough Manager. The completed 11-page basic grant application is attached. The Borough Manager and I reviewed the application prior to submission.

According to an email from AEA Project Manager, Ron Brown, to Haines Borough Manager Tom Bolen,

The Renewable grant applications are supposed to be reviewed, evaluated, and sent to the legislative committee that does the final cut by mid-Dec.

AEA received 115 applications for all forms of technologies.

AEA Anemometer Loan Program

Chilkat Bald Eagle Preserve Advisory Council. Thursday, October 9, the Chilkat Bald Eagle Advisory Council considered the impact of utility grade wind turbines along the Chilkat River on eagles. DNR Forester Roy Josephson reminded the Council that neither of the sites described (Valley of Eagles Gold Links; Philpott Native Allotment 8 Mile, west side of the Chilkat, Kicking Horse drainage) are within the boundaries of the Eagle Preserve, and that therefore, the Advisory Council has no jurisdiction. However, because wind turbines along the Chilkat have potential to impact eagles, the Council moved to express their concerns in a letter to the Energy & Sustainability Commission. Bill Schmeopf, US Fish & Wildlife Service, and Mike Eberhardt, DNR will compose a letter for the ESC Commission to consider. They want to include the latest data on the location of eagle nests.

Alternative Sites Suggested. The Tank Farm was suggested as a site that might be sufficiently windy and have less impact on wildlife. Lee Heinmiller suggested a site on Borough property classified "Recreation," above Buster's Mill.

Pyramid Island Anemometer Data. Al Badgely, Haines Fireman, recalled an anemometer installation on Pyramid Island in the early 90s. Data was collected for at least one year. A person would boat over to collect the data once a month. Badgely could not recall the Agency that installed the anemometer. James Jensen at the AEA Anemometer Loan program has not responded to my request for any information regarding the Pyramid Island anemometer. It is not listed in the AEA Wind Resource data base (<http://www.akenergyauthority.org/programwindresourcedata.html>).

Local Regulations. The Haines Borough Code (<http://www.codepublishing.com/AK/HainesBorough/>) does not mention "wind turbine" or "wind mills." Haines is divided into 12 planning zones. Utility facilities are allowed in all but three zones, but must obtain a local use permit. Some zones require a conditional use permit for a utility. See the Zoning use Chart in the Haines Borough Code Title 18.70.040 on line at <http://www.codepublishing.com/AK/HainesBorough/>

State Regulations: Coastal Zone Management. According to Jackie Timothy, Alaska Department of Natural Resources, a proposed wind farm along the Borough coast line would be reviewed by the State for consistency with the Alaska Coastal Management Program (ACMP) under the relevant standard, *11 AAC 112.230 Energy Facilities*. Timothy's response to my questions and the regulation are attached. patterns;

Timothy added the following disclaimer:

To my knowledge, this would be the first wind turbine that any of us currently sitting in these positions will have reviewed for impacts to uses and resources of the coastal zone. Therefore, I suggest you contact Phil Schempf, the FWS seat on the Council, for expert advice and recommendations. He is likely the most knowledgeable biologist concerning Bald Eagle movements and the risks these turbines might pose to the resource.

Impact of Wind Turbines on Eagles. In my search for standards to consider to address the interaction between eagles and turbines, I read "Known and Suspected Impacts of Wind Turbines on Wildlife" published in May 2003 by the Deputy Director of the US Fish and Wildlife Service in a memo entitled: *Service Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines* (<www.fws.gov/habitatconservation/wind.pdf>). Excerpted sections are attached.

<p><u>Recommended Action:</u> <i>Inform landowners that the Commission is awaiting information from the Bald Eagle Advisory Council. Seek recommendation for anemometer tower sites from Planning Commission. Determine proper contact for permission to install anemometer tower at Tank Farm.</i></p>

Skagway Hydro Project/ Canadian Intertie

Alan Sorum, Skagway Borough Manager, confirmed that Skagway was partnering with AP&T to submit an application for a feasibility study for a 10 MW hydro facility on West Creek River in Dyea to the Renewable Energy Fund November 8. The municipality anticipates selling power to cruise ships in order to mitigate air pollution caused by ship power while at the Skagway dock.

Mr. Sorum is also involved in conversations with Canadian officials regarding the possibility of an intertie between Canadian hydro and Skagway. Mr. Sorum speculated that a project of this nature would benefit Haines and may very well require support of the nature the Commission was suggesting might be helpful to Skagway for the West Creek River project. The West Creek Project does not require regional support at this time.

A Canadian intertie should be one of the items on the menu of renewable energy options that the Commission can follow with interest.

Haines Hydro Project/ Connelly Lake

Status of AP&T's interest in Connelly Lake as hydro site. AP&T Regional Manager Stan Selmer hopes to meet with the Commission to discuss this project at the November Commission meeting.

Chilkoot fish habitat studies. One of the concerns raised during previous public hearings for a permit for hydro development in the Connelly Lake area is the absence of data on habitat. The Takshanuk Watershed Council is conducting fish distribution and stream characterization research in the Upper Chilkoot under two grants: one from the US Fish & Wildlife Service and one from the Sustainable Salmon Fund from the AK. Department of Fish & Game. They expect the research to continue through next summer.

Current permits in the Upper Chilkoot. Randy Bachman, area Fish and Game biologist, directed me to Jackie Timothy for an answer to the question: What development permits have been applied for or are approved in the Upper Chilkoot Valley? Timothy sent my request down a line that has ended with Carrie Bohan in the State Alaska Coastal Management Plan office. Stay tuned.

KHNS Energy Talk

KHNS is willing to host a weekly Energy Talk, 8:45 – 9:00 AM, Mondays, with host Emily Seward. I have offered a light-hearted “promo:”

A weekly radio show about “Duct tape and caulk gun” solutions to cut down energy costs. Join Haines Borough Energy & Sustainability Commissioners and Coordinator, Stephanie Scott, for “no cost, low cost” solutions to those nasty but necessary heat and electricity bills.

The shows will be “live.” The first show can be scheduled for October 27. A list of potential topics is attached.

<p><u>Recommended Action:</u> <i>Move to Endorse Energy Talk weekly KHNS show and appoint Commissioners to work with Coordinator on topics and talking points.</i></p>
--

Energy & Sustainability Commission in the news

Lynn Canal Conservation interviewed me for their Fall newsletter, The Voice of the Valley. The informational article is attached.

Haines Municipal Energy Consumption Reduction Program

I have calculated a Municipal Energy Bill (August “Bill” is attached). This bill provides the Borough Assembly and the community with a monthly snapshot of its energy related expenditures. The “bill” for August is attached.

<p><u>Recommended Action:</u> <i>Move to transmit a Municipal Energy Bill to the Assembly monthly.</i></p>
--

Move to publish a Monthly Municipal Energy Pie chart in the Chilkat Valley News.

The Borough owns, but does not operate, 4 buildings: the Senior Center, the Human Resources Building, the Airport building, and the Klehini Valley Fire house. Although I have excellent data for the Senior Center, the operator of the Human Resources center said that it didn't have time to provide consumption data. The entity in charge of Klehini Valley Fire Department building is looking into sorting out the data. I haven't connected with the Wings management to see if data on the Airport building could be made available.

Recommended Action: *Move to omit the facilities that the Borough owns but does not operate from the 5-7% Energy Consumption Reduction program.*

As per the Manager's recommendation, benchmarks have been calculated that represent the average kilowatt or fuel oil consumption over a two or three-year period. Five to seven percent reduction targets are based on the benchmark. Here are three examples:

BOROUGH ADMINISTRATION BUILDING

Period	Kilowatt Benchmark	2009 Kilowatt Reduction Targets			Heating Fuel Benchmark	2009 Heating Fuel Reduction Targets		
		5%	6%	7%		5%	6%	7%
JAN	2878	2,734	2,705	2,677	27.27	25.91	25.63	25.36
FEB	2905	2,760	2,731	2,702	256.7	243.87	241.30	238.73
MARCH	2768	2,630	2,602	2,574	199.73	189.74	187.75	185.75
SEWER TREATMENT PLANT								
JAN	17,133	16,276.67	16,105.33	15,934.00	1,156.90	1,099.06	1,087.49	1,075.92
FEB	14,667	13,933.33	13,786.67	13,640.00	1,238.37	1,176.45	1,164.06	1,151.68
MARCH	13,520	12,844.00	12,708.80	12,573.60	1,474.13	1,400.43	1,385.69	1,370.94
MOSQUITO LAKE SCHOOL								
JAN	2,853.33	2,710.67	2,682.13	2,653.60	941.97	894.87	885.45	876.03
FEB	3,880.00	3,686.00	3,647.20	3,608.40	704.13	668.93	661.89	654.84
MARCH	2,800.00	2,660.00	2,632.00	2,604.00	713.00	677.35	670.22	663.09

Because kilowatts reported billed for the period correspond exactly to the kilowatts used in the month, the kilowatt reduction targets "make sense". This may not be the case for oil delivered during the period. The date of delivery may skew the monthly data. Here is the raw data for fuel delivered during Jan., Feb. March for a three year period and a comparison of monthly averages to quarterly averages. This may be especially true when a zero-delivery month is added to the average.

Period	Fuel Delivered to Admin, Building	Fuel Delivered to Sewer Treatment Plant	Fuel Delivered to Mosquito Lake School
JAN 2006	81.1	767.9	856
JAN 2007	0	1588.7	795.8
JAN 2008	0	1114.1	1174.1
MONTHLY AV.	27.27	1156.90	941.97
FEB 2006	224.9	1327.2	656.5
FEB 2007	223.7	1731.6	722.3
FEB 2008	321.5	656.3	733.6
MONTHLY AV.	256.7	1238.37	704.13
MARCH 2006	159.3	1687.5	757.1
MARCH 2007	247.3	1447.6	715.1
MARCH 2008	192.6	1287.3	666.8
MONTHLY AV.	199.73	1474.13	713.00
QUARTERLY AVE.	483.47	3869.4	2359.1

Recommended Action:

Recommend that the Manager accept monthly benchmark from which to calculate kilowatt reduction target.

Recommend that the Manager accept quarterly benchmark from which to calculate heating fuel reduction target.

Recommend to the Manager that conservation strategies be implemented by staff no later than January 1, 2009.

The Conservation subcommittee meet to determine facility to recommend for professional energy audit, based on analysis of consumption data per square foot.

The Conservation subcommittee meet to draft strategy for enlisting Municipal staff participation in conservation and efficiency efforts.

Plan to Reduce Consumption by 20-30% in a Time of Emergency

Resolution 08-06-123 assigns the Coordinator the task of Create an emergency conservation plan (20-30% reduction of consumption) to be implemented in a time of emergency as designated by the Borough Assembly. The Scope of Work for the Coordinator's position attaches a 180-day time line to the task, with a start date of September 15. The Commission assigned itself this task September 17 with Commissioners Hedden, Wackerman, and Dubber to take the lead.

I have discussed this task with Rocky Ahrens, Jim Studely, Scott Bradford, and Al Badgely - participants in the Haines Emergency Local Planning (HELP) committee. A strategy for responding to an energy shortage is outlined in the Haines Emergency Operations Guide, available for download from the Haines Borough website. I have attached the pages that outline the series of steps that would be taken should an energy shortage threaten or occur. The pages are a checklist for planners and responders (attached). Ahrens and Bradford agreed that a list of specific recommendations for reducing consumption should be included.

There are two volumes that guide the development of the recommendations. [Saving Oil in a Hurry](#), and [Saving Electricity in a Hurry](#). Both are published by the International Energy Agency. Both discuss and evaluate strategies to reduce consumption drastically.

Recommended Action: *Commissioners read [Saving Oil in a Hurry](#) and [Saving Electricity in a Hurry](#) for reduction strategies that would be appropriate for Haines; submit these recommendations to HELP for their comments; then bring a final set of recommendations to the Commission for approval.*

Commission Collaboration with High School Science Teacher, Mark Fontenot, to prepare an Energy Audit and Conservation and Efficiency Plan for the K-12 School

Thursday, October 9, I met with Superintendent Byer to discuss energy issues. Superintendent Byer invited the Commission to brainstorm with High School science teacher, Mark Fontenot, to develop an approach to train students to audit the energy consumption at the school. I met with Mr. Fontenot and tentatively planned a brainstorming session in November.

I have identified a promising curriculum. [School Energy Survey](#), designed by NEED (National Energy Education Development Project, www.need.org/) “gives students the necessary background and structures to conduct an energy survey of their school building.” It is a “step-by-step approach that guides students through the process of analyzing energy consuming appliances and systems. After gathering data, students identify energy-related issues and brainstorm solutions. Students then rate the costs and benefits associated with their proposed solutions and put together an action plan. ..as an extension, students can monitor the impacts of their plan over time” (page 6, [School Energy Survey Teacher Guide](#)). It takes approximately seven 45-minute class periods, plus out-of-class research and monitoring.

Recommended Action: *Move to partner with the High School science teacher to conduct an energy analysis for the school.*

Appoint two Commissioners to meet with Mark Fontenot and the Coordinator to make a plan for the student conducted energy analysis.

Suggested preparation: *Read through [Saving Energy: School Energy Survey, Teacher Guide](#) (21 pages), [Student Guide](#) (43 pages); [Saving Energy: Learning & Conserving Teacher Guide](#) (23 pages), [Student Guide](#) (43 pages).*

Municipal Employee Energy Saver Recognition

Haines Borough Accounts Payable & Payroll Clerk Cathy Keller’s curiosity and attention to detail paid a \$9,975.02 bonus to the Haines Borough this month.

While managing the Borough electric bills, Ms. Keller questioned why some facilities had a “yes” in the Power Cost Equalization (PCE) credit column and some were marked “no.” After some research, she applied for the credit for 8 more facilities that she believed qualified. The PCE credit reduces the per kilowatt-hour rate by \$.0850 or \$.0845 depending on the legislative funding level.

Ms. Keller received word from Alaska Power & Telephone Company Friday, October 3, that Ms. Keller’s applications on behalf of 8 Haines Borough Municipal electric accounts for the Power Cost Equalization (PCE) Credit had been approved and processed. Each facility is now qualified to receive unlimited PCE credit. Credit has been applied retroactively for the months of July, August, and September, so that each account will be credited as follows:

Public Safety Building: \$1,423.15
Chilkat Center: \$826.00
Sheldon Museum: \$553.58
Administration Building: 660.08
Public Library: \$1049.56
Public Works: \$28.28
Sewage Treatment Plan: \$3447.28
Streetlights: \$1987.08

Recommended Action: *Move to write a letter of commendation from the Haines Borough Energy & Sustainability Commission to Ms. Keller thanking her for the diligent and thoughtful management of the Haines Borough energy consumption accounts.*

Energy Fair

The ANB Hall can be available November 22 (Saturday) for \$75. The Chilkat Center lobby is also available. Rates for the lobby are \$30 for the first hour and \$15 per hour thereafter.

The Alliance to Save Energy (www.ase.org/) has partnered with the Ad Council (www.adcouncil.org/) to raise awareness of the benefits of residential energy efficiency. The spokesperson for the campaign is the *Energy Hog*.

I have requested an Energy Hog costume and materials (bookmarks and tattoos). I have a set of lessons that may provide some ideas for activities that might be fun to do at the Energy Fair.



I have drafted an invitation to retailers that might consider distributing if you conceive of the Fair as a place where retailers might display or even sell products that relate to

energy conservation and efficiency. The invitation could be modified to target booksellers, auto parts and maintenance providers, etc. It is attached.

Recommended Action: *Set date, time, and location for Energy Fair. Assign tasks: Advertising, Contacting participants.*

Attachments:

- Local Energy Prices Spread Sheet
- Wood Heat Grant Application
- ACMP Regulations
- *Known and Suspected Impacts of Wind Turbines on Wildlife* excerpts
- Energy Talk topics
- Article about the Commission in *The Voice of the Valley*
- Municipal Energy Bill: August 2008
- Energy Shortage Checklist from Haines Emergency Operations Guide
- PCE Credits
- Energy Fair draft invitation to Retailers