



Memo

To: Haines Borough Energy & Sustainability Commissioners
From: Stephanie Scott, Energy & Sustainability Coordinator
CC: Stan Selmer, Regional Manager, AP&T
Date: December 18, 2008
Re: New Business (b): Notification Procedures for Periods of Peaking and Make-Up Diesel for Electricity

Stan Selmer, Regional Manager for AP&T, requested guidance with respect to the notification procedures preferred by the community in the event of utilization of diesel generated power, as opposed to the normal hydro generated power. The switch to diesel can occur for several reasons. The most common reason is that the flow from Goat Lake decreases due to weather (low water due to cold temperatures or lack of rain). Diesel generated electricity is more expensive than hydro generated electricity. How much more expensive it is depends on the price of fuel oil and how much diesel generated electricity is required to meet demand.

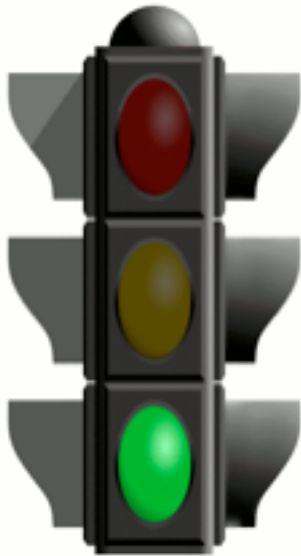
It is in the interest of the residents of Haines to work toward the lowest cost of electricity possible. So, if the utility must use diesel, communicating this event to consumers is important. By accelerating conservation efforts, consumers can not only control their cost of electricity (use less = pay less) but also they can conceivably shorten the period of time the utility needs to use diesel.

The question is how and when should the utility convey the information to consumers? The moment diesels are fired up or in anticipation of the utilization of peaking (supplemental) or make-up (replacement) diesel?

There are examples of the wisdom of advance warning. For example, learning that the peak often occurs between 4 and 7 PM in Haines, operators at the wastewater and water treatment plants in Haines rescheduled two major pumps to avoid those times. This may have contributed to the very small amount of diesel needed to meet peaking demand last Monday, December 8 (Selmer reported on KHNS that only 480 KWH needed to be generated by diesel out of a total 77,250 KWH generated that day). On that radio show, Selmer said that the community could expect to use peaking diesel from 4-7 PM daily for the foreseeable future.

More than Notification. But without reminders of peaking diesel, how soon will consumers forget? Probably, concern over the status of hydro supplied power versus diesel supplied power will soon be replaced by more pressing concerns, like getting to work, keeping warm, preparing meals, etc.

Sitka Electric continually notifies consumers about the status of hydro electricity on their website (<http://cityofsitka.com/dept/electric/elecidx.htm>).



The City uses a simple stop light icon, explained like this:

The Electric Department has implemented a color coded Power Supply Risk Level to communicate to the public regarding our current status on Power Generation. The Risk Level will follow the same concept as Traffic Lights. (Proceed/Caution/Stop)

Red-Stop Using Electric Heat: It is certain that significant supplemental diesel generation will be required this year. Please switch to alternate heat source. (Oil, Wood, Etc.)

Yellow- Caution Using Electric Heat: There is a high risk of significant supplemental diesel generation will be required this year. As a precautionary measure please conserve on the use of electric energy.

Green- Proceed Using Electric Heat: There is a low risk that significant supplemental diesel generation will be required this year.

Take some time to peruse the power supply charts (<http://cityofsitka.com/dept/electric/PowerGeneration.html>). These are very informative and may be models for data that should be developed for a Haines community energy profile.

Sitka Electric also posts a very easy to use Energy Usage Calculator (<http://cityofsitka.com/dept/electric/EnergyCalculator.html>); and excellent Energy Saving tips (<http://cityofsitka.com/dept/electric/EnergySave.html>). I have included these tips as a PDF document.