

Discussion pertaining to the capitalization of Outdoor Wood fired Boiler systems for businesses in Haines/
11/1/08

Points to consider concerning OWB systems

This discussion is about outdoor wood fired boilers systems, mostly for commercial or large scale use.

Points will be presented in a pro-con format with the intent of clarifying the issues involved.

- 1 **The biggest single obstacle to installing good, efficient OWBs is capitalization.**
Very few companies or individuals will be able to finance the cost of converting to the OWB while still paying the exorbitant cost of oil. Therefore, a source of financing must be made available and it must be low or zero interest with little or no down payment required.
- 2 **The Haines borough permanent fund has a rather large excess and could easily be used for this purpose,** this would help individuals, businesses, and the borough government to design, build and install these systems.
- 3 **The use of OWB for large scale (commercial) use is quite easily done and very effective,** the major stumbling block is neither the design or the installation but rather the operation of the system.

Pro. The OWB can displace up to 85% of the oil use and still maintain the ability to use oil in an emergency.

Con, The problem is that if you design a cord wood system it will require someone to feed and attend the system for several hours a day. The additional cost of labor negates the savings in the cost of oil. This is not a problem in a home size system but it is in a large commercial system.

Pro. The use of chips, grindings, hog fuel, pellets or briquettes allow the use of bulk feed systems with a large hopper and conveyors so that the system feeds itself, on demand, for a length of time. This is proven technology and has been in use for decades.

Con, The cost of acquiring and running a large chipping plant are considerable \$500,000

Pro, This is an opportunity for individuals to start or expand another business in Haines provided that there is financing available to do it. There is an opportunity for a home delivery business as well. And of course the original installation will provide work for several other businesses.

Con, Extremely large scale use of OWBs will negatively impact the sales volume of heating oil in Haines.

Pro. This will certainly not eliminate all sales, It will not result in the loss of jobs in the oil business and will create several new jobs.

Pro. The Haines state forest contains huge amounts of bio-fuel in the form of timber, trees and brush, nearly all of this is usable for chip fuel. Low grade spruce and hemlock timber, cottonwood, alder, birch are all suitable fuels and actually work better when mixed.

Con. We are going to cut down all the trees and the animals will all die. Utter nonsense, the Haines forest has huge tracts of old growth forest that provide very little food, The best food production comes from new re-growth such as young alder, birch and cottonwood. Even better is the abundance of bushes and shrubs such as red osier dogwood that comes in when the canopy of big trees is removed. Small scale clear cutting enables the use of the very best trees for lumber and the use of everything else for fuel.

Pro. Again, this is an opportunity to expand existing business or create new business in the community utilizing renewable resources. The very best cottonwood, birch and spruce can be harvested for use in furniture, lumber, wood carving, bowl making etc. and the cost to harvest will be minimized because the costs will be shared with the chipping operation.

Con, OWBs smoke and stink,

Pro, Modern OWBs with "gasification" burners do not smoke and do not stink, they will put off a small amount of white steam. These burners are vastly more efficient than a fireplace or wood stove and the air pollution not being created from oil burners will result in a substantial net savings of pollutants.

I envision the use of a portion of the Haines permanent fund as start-up funding for this project. Whether it be in the form of loan guarantees or outright loans. If the loans consider the ability to pay the funds back, and the cost/benefit relationship (how much oil can be replaced with each loan) this can be a revolving loan program that can run over the long term and can be a tremendous benefit to the entire community.

(Cost/benefit relationship) The costs to process and manage one loan will be fairly constant from one to the next. The amount of oil displaced by each system will vary considerably. Example a small one bedroom house using \$500.00 per month heating oil may realize a savings of \$350.00 or more after the system is in place, This will benefit the home owner. A large apartment building, duplex, fourplex, motel or commercial building may have oil costs of \$5000.00 per month or more. For the same expense of loan management costs you may realize savings of \$4500.00 per month or more and benefit several families or the general public by helping to keep costs down, at the same time. A retail store that is using \$5000.00 per month has to add that cost into the price of a box of Cheerios so a savings in the cost to the store will result in a lower price on the box of Cheerios.

In closing I would like to say that "Time is of the essence" currently due to the popularity of OWBs delivery times are in months. There are seasonal considerations as well, most of these larger systems will have to have ground work done in the summer. Even more critical is the fact that we are losing assets all the time. Just this summer a very large commercial chipper at the old Lutak sawmill was scrapped out. Logging equipment has not been used and has been disposed of, skilled forest workers have moved away. Each day that this program is delayed makes it that much harder and more costly to implement.

Shane Horton