From: Jim Van Valkenburgh [mailto:jim@frolingenergy.com]

Sent: Wednesday, November 27, 2013 10:02 AM

**To:** Bernstein, Barbara **Cc:** Mark Froling

Subject: Re: Staged boilers text

Hi Barbara,

## A few suggestions:

In my paragraph on page  $2\,\mathrm{I}$  wrote: . In pellet systems for space heating that require over 300,000 BTU output, multiple staged boilers are recommended which gives added output flexibility. But I would like to change that to:

In pellet space heating systems with over 300,000 BTU output, multiple staged boilers are recommended which gives added output flexibility.

Page 4: Change to this slightly reworded version: Why do you include "not direct space heating"? Is it to negate anyone with a pellet stove from submitting? Why do you say "though none should be required" for the back up system, especially since you are encouraging the undersizing of systems which often points to the need for a peaking boiler to cover the coldest conditions adequately. So here is my version:

a. A central heating system provides warmth to the whole interior of a building (or portion of a building), through a forced hot air or water heat distribution system, from one point to multiple rooms. To be funded under this rebate program a central pellet boiler or furnace must be the only or primary central heating system, though there may be other supplemental space heating sources or interconnected back-up systems in the building. Pellet heating systems may also provide hot water through a heat exchanger and may also be interconnected with a supplemental solar hot water heating system.

Page 7: Awkward wording-- Change "Heating System Distribution Description" to "Heat Distribution System Description"

Questions you may want to address:

Would these portions of a project be covered by this rebate plan?

- A) If someone needs long piping runs to join together two boiler rooms (for example: where one is being disabled and all heat will come from the other where the pellet boiler is).
- B) If a boiler is installed but heat distribution requires forced hot air would you cover a new air handler with water to air heat exchanger in it? Would you cover the cost of retrofitting an existing furnace with a water to air heat exchanger?
- C) Will you cover the cost of reworking a hydronic heat distribution system where a new distribution loop is installed in the boiler room with new pump circulators and the addition of closely spaced tees, valves, etc... for the primary pellet boiler(s) and the existing (or new) back up boiler.
- D) Will you cover the cost of a new back up boiler which is integrated into the new system that uses electricity, propane, oil or other fossil fuel fuel?

These are things that are fairly common in commercial projects that we have either quoted or completed as part of a contract.

I hope this is helpful.

On Wed, Nov 27, 2013 at 8:44 AM, Bernstein, Barbara < Barbara. Bernstein@puc.nh.gov > wrote:

Thanks Mark,

We haven't tackled a limit yet – I know that is something the Commission will need to discuss. I've attached the latest draft that has a number of highlighted areas that need to be discussed/reviewed. I would greatly appreciate input from you and Jim.

Barbara Bernstein

Sustainable Energy Division NH Public Utilities Commission 21 South Fruit Street, Suite 10 Concord, NH 03301-2429 603-271-6011 Barbara.bernstein@puc.nh.gov

From: Mark Froling [mailto:mark@frolingenergy.com]

Sent: Tuesday, November 26, 2013 9:25 PM

To: Bernstein, Barbara

Subject: Re: Staged boilers text

Barbara,

I looked at my last four years of installation costs and realized that it would be good to have the C&I grant reach up to a 250k cap.

Above that amount there is a serious jump up for us and a dramatically longer sales cycle that can afford to include the more cumbersome RFP grant application and process. That would still be a 20% grant for the biggest projects and an increased percentage for for the average projects.

Our medium project is now 186k.

## Mark

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On Mon, Nov 25, 2013 at 4:23 PM, Bernstein, Barbara < Barbara.Bernstein@puc.nh.gov > wrote:

Jim,

I am so grateful for your input and, yes, I would be delighted for your review! I hope to have a new draft to you tomorrow.

Barbara Bernstein Sustainable Energy Division NH Public Utilities Commission 21 South Fruit Street, Suite 10 Concord, NH 03301-2429

## 603-271-6011

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