

## Kathleen Ramsay

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**From:** Thomas Hanley <THanley@middleburypolice.org>  
**Sent:** Monday, October 22, 2018 10:41 AM  
**To:** 'jasz@sover.net'  
**Cc:** Kathleen Ramsay  
**Subject:** Heating/Cooling the police building

Good morning, Victoria,

Kathleen forwarded me your email regarding a suggestion to look into heat pumps.

I concur that we should be looking into long-term plans to resolve the issues of burning substances to heat our building. There would be a significant capital cost to do this. We recently converted our propane fired water heater to a heat pump, so we are slowly moving in this direction. Our existing propane water heater had failed so we took advantage of the need to replace it by going with a heat pump system. A few years ago we took advantage of an Efficiency Vermont grant to replace all our exterior metal halide lights with LED fixtures.

The current plan to switch to natural gas could be considered a temporary measure- the pay back for conversion is about 2 years. If we stayed with propane for the several years it will take to explore and subsequently design and fund an alternative heating system we could be paying out more than we need to for heat. With the conversion, we will start seeing savings immediately. The advantage is that this conversion doesn't preclude us from exploring other systems since it is not a capital expenditure or investment- simply putting in new pipes and nozzles, it is tantamount to doing a routine repair as opposed to a replacement.

Our current system will be approaching the end of its service life in 5-10 years, and due to a good maintenance record, this could extend to 15 years. Our capital improvements program is slowly building a fund for capital replacement of the system. Replacing an operating system prior to the end of its useful life may not be prudent. My thought with the conversion proposal is to have it run as efficiently as possible and reduce the operating cost until such time as replacement is needed. In the meantime we are proposing in our budget request improvements to reduce fuel cost recommended by the energy committee through the Zero By Degrees survey from this past winter.

As always, if you have any questions or want to talk about this further, let me know.

Tom Hanley