

From: Ed Veldman <eveldman@mpe.ca>
Sent: Monday, May 26, 2025 11:50 AM
To: Brad Burns <brad.burns@claresholm.ca>
Subject: RE: Information in Cutler Hamer vs others for Council

Good morning Brad,

As requested,

The Town of Claresholm undertook to Upgrade the Water Treatment Plant (WTP) in 2008 or so with construction beginning in summer of 2009 and running through to early 2011. The Electrical Variable Frequency Drives (VFD) at the WTP are now 14 years old and while some VFD installations run to 20 years the our experience tells us that the expected life span for most installations is approximately 15 years. (VFD manufacturers typically do not provide expected life spans for the simple reason that environmental conditions and power quality into the VFD are significant variables that they are not able to control).

The VFD's at the WTP and Highway Pumpstation (HP) are incorporated in manufacturer fabricated electrical enclosures commonly known as Motor Control Centers (MCC). MCC's provide a modular and reasonably compact electrical distribution platform to safely and effectively tie electrical and control systems together at the respective facility. These MCC's are preassembled and tested at the factory and then shipped to site and installed by electrical contractors. They carry a manufacturers CSA approval and are engineered to provide the appropriate cooling and clearances required for the motor control (in this case for the VFD).

The Town has asked for budget pricing to replace the VFD's at the WTP and HP. Cutler Hammer has provided budget pricing to replace the existing VFD's with new VFD's of the same manufacturer. This preserves the CSA approval and the engineering for cooling and manufacturer required clearances. The installation will be cleaner and less prone to downtime.

There are many VFD manufacturers in the marketplace today. Not all are created equal, costs vary, and none of them use a standard size (LxWxD). Replacing the existing VFD's with an alternate manufacturer will take additional engineering work (MPE) so that they will fit in the same footprint of the existing VFD. This will also mean that they are not likely to not be all of the same manufacturer. (we have already seen this when trying to source an alternate VFD for a failed unit at the HP and ended up with a Cutler Hammer unit.) Additionally, each replaced VFD would likely need to be recertified by a CSA approved inspector.

While the costs to replace these VFD's is not insignificant using the existing manufacturer, I would suggest this path may still be in the Town's best interest for the reasons stated **above**.

Regards,

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