From: Gary Sippin Gary@sippin.com 🖉

Subject: RE: Electric Heat Pump, Conversion Costs.xlsx

Date: February 4, 2021 at 2:49 PM

To: Rohner, Elena Elena.Rohner@kearney.com, Christina Cisneros-Guzman pm@nefi.com

Cc: Sean Cota NEFI sean.cota@nefi.com, chris chris@ctema.com



John Huber asked if my estimates were from actual installations, I replied, no, but when a market for idiotic, ineffective, and horrifically expensive HVAC systems emerges, I'll be prepared to serve it.

The quick take-away from my estimates is that the cost can vary dramatically depending on the extent of the conversion, the type of building, and the climatic demands of the area. I suppose the financial ability of homeowners to afford such systems may be a factor also...

May be a good idea for me to chat with Joe Uglietto about it and compare notes.

From: Rohner, Elena < Elena. Rohner@kearney.com >

Sent: Tuesday, February 2, 2021 6:31 PM

To: Gary Sippin <gary@sippin.com>; Christina Cisneros-Guzman <pm@nefi.com>

Cc: Sean Cota NEFI <sean.cota@nefi.com>; chris@ctema.com>

Subject: RE: Electric Heat Pump, Conversion Costs.xlsx

Hi Gary,

We discussed this analysis in a number of the Taskforce teams and I'd received some feedback (mostly from Michelle Wilson's clients at Consumer Focus) with anecdotal evidence about conversions they'd done and what that cost. That said, the analysis you've shared is phenomenal and will be incredibly useful – huge thank you! I can already see a 1-pager with "The Real Facts About ASHP" and infographics outlining what a customer would get for say \$20K versus \$40K versus \$60K. Or delineating clearly that for X type of home, it'll likely cost you Y, etc.

I've Cc'd in Christina who is NEFI's new fulltime project manager so you can work with her. It sounds like you might be open to / interested in having this analysis shared with the Dealer Taskforce Team for input?

<u>@Christina</u> it seems like this is data could be ideal for another tailored 1-pager. The audience would likely be customers via their dealers (aka NEFI would provide dealers with the 1-pager to be shared with their customers).

Thank you again Gary – really fabulous data!

Cheers, Elena

Elena Rohner

+1 646 965 4288 A.T. Kearney, Inc. 7 Times Square 36th Floor

KEARNEY

From: Gary Sippin <<u>gary@sippin.com</u>>
Sent: Tuesday, February 2, 2021 3:39 PM

To: Rohner, Elena < Elena. Rohner@kearney.com >

Cc: Sean Cota NEFI < sean.cota@nefi.com >; chris < chris@ctema.com >

Subject: Electric Heat Pump, Conversion Costs.xlsx

I can't remember who I talk to about this, but at one of the meetings I had commented on the cost estimates for converting homes to electric heat pumps, and voiced some concern over the industry average that was floating around \$20,000. I had my HVAC sales staff assemble some rough estimates on a variety of different types of homes where heat pump conversions could be done, and as you can see from this review, not much can be done for \$20,000. We have also made some assumptions that these installations would not be supplemental, or space heating applications, but complete system replacements were all fossil fuel related systems were replaced with electric heat pumps. This review also assumes that domestic water heaters will not be resistance type heaters, but rather high efficiency heat pump style water heaters. It also assumes that all fuel related equipment, including old heating systems, fuel tanks, etc. be removed from the premises. In summary, the new construction market for HVAC is very different than a retrofit market. We are dealing with dozens of different types of building structures all having unique demands and requirements, compounded by a myriad of state and local regulations restricting what can and cannot be done. Bottom line, heat pump conversions cost a lot of money, sometimes two or three times more than the stated average of \$20,000. My assumption is that the original estimates were merely for space heating installations of mini split style systems. These systems almost never provide comprehensive zone control for a typical home, nor do they provide domestic hot water, or deal with the removal of fossil fuel related equipment from the site. All of these things have to be taken into consideration.

I know that this exercise was quick and dirty, but I would like to get some feedback from some other dealers who do a lot of HVAC work both in the retrofit and new construction markets.



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