



**Mitsubishi Electric Cooling & Heating**  
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Secretary Rosemary Chiavetta  
Pennsylvania Public Utilities Commission  
Harrisburg, PA. 17105-3265

October 7, 2014

Re: Docket Number M-2012-2313373 2015 TRM ANNUAL UPDATE TENTATIVE ORDER

Mitsubishi Electric Cooling and Heating wishes to thank the Commission for recognizing the need for improvements to the TRM and taking prompt action to rectify the formulas for Ductless Mini-Split Heat Pumps in the 2015 TRM Annual Update Tentative Order. The market for ductless heat pump technology is currently growing as new highly efficient heat pump products reach the Pennsylvania market, representing vast improvements over traditional heating and cooling equipment. Amongst advanced product developments, Mitsubishi recently introduced a 30.5 SEER ductless mini-split and a cold-climate heat pump that will heat to -13 F. Our technological research and development of energy efficient products continues to be a top priority.

We would like to make two minor suggestions to the TRM for consideration;

1. **Measure Life:** Currently the measure life is listed at 15 years. These systems are performing in installations well past the 15 year mark. In fact, the Massachusetts TRM and the Illinois TRM have stated their Measure Life to be 18 years. Also, a section on VRF in the ASHRAE 2012 Handbook Chapter 18 concurs that manufacturers list 15 to 20 years for air-source systems. It would not be unreasonable to adopt 17.5 or 18 years as a Measure Life.
2. In revising the Residential Measure algorithms in Section 2.2.3 *Ductless Mini-split Heat Pumps*, the Commission has corrected a formula that previously underestimated savings. We feel that some of the same considerations should be made in the Commercial Measures Section 3.2.4 *Ductless Mini-Split Heat Pumps – Commercial < 5.4 tons*, including the addition of a Duct Loss Factor (DLF), and an Oversize Factor (OF).

Again, thank you for addressing this matter, which we feel will enable this cost effective technology to be considered for future efficiency programs in the State of Pennsylvania.

Sincerely,

A handwritten signature in black ink that reads "Eric Dubin".

**Eric Dubin**  
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