



## **Filing Receipt**

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<b>Access</b>	PUC – Interchange Filing: Case 56510 <a href="https://www.texas.gov">Interchange - Documents (texas.gov)</a>  Teams site: <a href="https://tetrattechinc.sharepoint.com/:f:/r/teams/PUCTHeatPumpWorkinggroup/Shared%20Documents/General?csf=1&amp;web=1&amp;e=mCHkEh">https://tetrattechinc.sharepoint.com/:f:/r/teams/PUCTHeatPumpWorkinggroup/Shared%20Documents/General?csf=1&amp;web=1&amp;e=mCHkEh</a>  Past Meeting recordings: <a href="https://vimeo.com/channels/HPWG">https://vimeo.com/channels/HPWG</a>
<b>Review of Residential Measure Barriers</b>	Residential Measure 2.2.2 (Review) <ul style="list-style-type: none"> <li>• Load Calculations (Manual J &amp; S)</li> <li>• Consumption hours</li> <li>• Right-sizing calculations (limitations to different capacities)</li> <li>• Winter savings for gas heat replacement – Baseline as std. heat pump</li> <li>• Winter savings for HP replacement – Pre and post are both equal amount of supplemental heat (77%)</li> <li>• Current ID of VSHP is based on SEER being greater than 15.2</li> <li>• VSHP do not have the mismatched equipment concern seen with units a few years ago.</li> <li>• New Construction baseline = 115% of summer load</li> <li>• Summer and Winter Peak Coincident demand factors need to adjust based on summer peak capacity and winter supplemental heat.</li> <li>• EFLH is multiplied times SEER/HSPF to determine consumption.</li> <li>• EUL is 15 years for heat pumps.</li> </ul>
<b>Identification of Commercial Barriers that vary from Residential</b>	Commercial Measure 2.2.2 <ul style="list-style-type: none"> <li>• Replacement capacity limited to 20% adjustment</li> <li>• New Construction baseline capacity = Installed capacity</li> <li>• Baseline efficiencies per DOE standards or IECC2015</li> </ul>
<b>Discussion Schedule</b>	<ul style="list-style-type: none"> <li>○ May 7: Identification of VSHP, Load Calculation requirements, Consumption calculation (EFLH), EUL</li> <li>○ May 21: Summer Peak &amp; Consumption</li> <li>○ June 4: Winter Peak &amp; Consumption</li> <li>○ <b>June 18: Baseline equipment, upsizing/downsizing calculation, and coincidence factor</b></li> <li>○ July 09: Envelope incorporation</li> <li>○ July 16: Draft measure</li> <li>○ July 30: Review measure</li> </ul>
<b>Envelope</b>	Can envelope improvements be incorporated into TRM energy savings calculations?



Equation Testing	See spreadsheet
Next Meeting	<b>July 16 at 11:00</b> Topic – <b>Equation finalization and draft measure</b>



Acronym	Term
ACCA	Air Conditioning Contractors of America Manual J is the sizing calculation from ACCA
AHRI	Air Conditioning, Heating, and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
COP	Coefficient of Performance
CPUC	California Public Utilities Commission
DHW	Domestic Hot Water
DOE	United States Department of Energy
EER	Energy Efficiency Ratio
EFLH	Equivalent Full Load Hours
ER	Early Retirement
EUL	Effective Useful Life
HP	Heat Pump
HSPF	Heating Seasonal Performance Factor
IECC	International Energy Conservation Code
NC	New Construction
NEEP	Northeast Energy Efficiency Partnership
PNNL	Pacific Northwest National Laboratory
PUC	Public Utility Commission of Texas
ROB	Replace on Burnout
SEER	Seasonal Energy Efficiency Ratio
TRM	Technical Reference Manual
VSHP	Variable Speed Heat Pump

The following files are not convertible:

24.xlsx VSHPCalcTesting-Template\_2024-06-

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

Contact [centralrecords@puc.texas.gov](mailto:centralrecords@puc.texas.gov) if you have any questions.