| DOCKETED | | |
|------------------|---|--|
| Docket Number: | 19-BSTD-02 | |
| Project Title: | Residential Alternative Calculation Method Variable Capacity Heat Pump Modeling Approach | |
| TN #: | 226388 | |
| Document Title: | Notice of Public Workshop for Variable Capacity Heat Pump Model | |
| Description: | Friday, February 15, 2019, 9:00 a.m. Warren-Alquist State Energy Building 1516 Ninth Street First Floor, Art Rosenfeld Hearing Room Sacramento, California 95814 (Wheelchair Accessible) | |
| Filer: | Cody Goldthrite | |
| Organization: | California Energy Commission | |
| Submitter Role: | Commission Staff | |
| Submission Date: | 1/28/2019 9:02:46 AM | |
| Docketed Date: | 1/28/2019 | |



| IN THE MATTER OF: |) Docket No. 19-BSTD-02 |
|--|---|
| Variable capacity heat pump modeling approach workshop |) NOTICE OF WORKSHOP) |
| |) RE: Variable capacity heat pump) modeling approach |

Notice of Public Workshop for Variable Capacity Heat Pump Modeling Approach

California Energy Commission staff will conduct a public workshop to present a method to model variable capacity heat pump (VCHP) systems. This will allow VCHP systems to be modeled for compliance in residential buildings using the performance method. The workshop will cover the background of the algorithms, discuss the eligibility criteria, and explain the third party field verification requirements.

The VCHP algorithms will be incorporated into the Alternative Calculation Method (ACM) Reference Manual and the residential California Building Energy Code Compliance (CBECC-Res) performance compliance software for use for demonstrating compliance with the Performance Standards specified in Title 24, Part 6, Section 150.1(b).

Commissioner Andrew McAllister may attend and participate in the workshops.

The workshop will be held on:

Friday, February 15, 2019, 9:00 a.m.

Warren-Alquist State Energy Building 1516 Ninth Street First Floor, Art Rosenfeld Hearing Room Sacramento, California 95814 (Wheelchair Accessible)

Remote Access Available by Computer or Phone via WebEx[™] (Instructions below)

Background

The Central Valley Research Homes (CVRH) project monitored VCHP systems in three houses in Stockton, California from 2014-2018. Different VCHP model numbers and system types were evaluated in each year of the project. The system types evaluated included ductless mini-and multi-split systems and short-duct mini splits with ducts inside the conditioned space. The data generated in the CVRH projects was used to develop algorithms for VCHP system performance.

Staff will present information and invite discussion on the following topics and materials:

- Explanation of the information used to develop the performance algorithms
- Discussion of the cooling performance
- Discussion of the heating performance
- Discussion of the fan energy
- Air distribution (ducts, unducted, combination)
- Air filter sizing
- Eligibility criteria of the VCHP system installation that will be required in order to be able to be modeled for compliance
- Field verification requirements
- The phases and anticipated timeline for the residential public domain software and ACM Reference Manual development and approval

Public Comment

Oral comments. Staff will accept oral comments during the workshop. Comments may be limited to three minutes per speaker. Any comments may become part of the public record in this proceeding.

Written comments. Written comments should be submitted to the Dockets Unit by 5:00 p.m. on March 1, 2019, but are encouraged to be submitted by February 11, 2019, so that they may be considered at the workshop. Written comments will also be accepted at the workshop, however, staff may not have time to review them before the conclusion of the meeting.

Please note that your written and oral comments, attachments, and associated contact information (e.g., your address, phone number, email address, etc.) become part of the viewable public record. This information may become available via Google, Yahoo, and any other search engines.

The Energy Commission encourages use of its electronic commenting system. Visit the website at https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-BSTD-02.

This will take you to the page for adding comments to this docket. Please enter your contact information, any organization name, and a comment title describing the subject of your comments. You may include comments in the box titled "Comment Text" or

attach a file in a downloadable, **searchable format** in Microsoft® Word (.doc, .docx) or Adobe® Acrobat® (.pdf). Maximum file size is 10 MB.

Written comments may also be submitted by e-mailing them (include the docket number 19-BSTD-02 and "February 2019 Workshop – Variable Capacity Heat Pumps" in the subject line) to the Docket Unit at:

docket@energy.ca.gov

If you prefer, you may send a paper copy of your comments to:

California Energy Commission Docket Unit, MS-4 Re: Docket No. 19-BSTD-02 1516 Ninth Street Sacramento, CA 95814-5512

Public Adviser and Other Commission Contacts

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission proceedings. If you want information on how to participate in this forum, please contact the Public Adviser, Alana Mathews, at PublicAdviser@energy.ca.gov or (916) 654-4489, or toll free at (800) 822-6228.

If you have a disability and require assistance to participate, please contact Yolanda Rushin at yolanda.rushin@energy.ca.gov or (916) 654-4310 at least five days in advance.

Media inquiries should be sent to the Media and Public Communications Office at mediaoffice@energy.ca.gov or (916) 654-4989.

If you have questions on the subject matter of this meeting, please contact Larry Froess at larry.froess@energy.ca.gov or (916) 654-4525.

Remote Attendance

You may participate in this meeting through WebEx, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you may listen to audio via your computer or telephone. Please be aware that the meeting may be recorded.

VIA COMPUTER: Go to https://energy.webex.com/ec. If this Event is shown on the list of events, click on its "Join" link. If it is not listed, click the "Unlisted Events" link on the left of your screen and enter the meeting number: 929 063 814.

When prompted, enter your name and email address and the following meeting password: ACMmeeting@9.

The "Join Conference" menu will offer you a choice of audio connections:

- 1. To call into the meeting: Select "I will call in" and follow the on-screen directions.
- 2. International Attendees: Click on the "Global call-in number" link.
- 3. To have WebEx call you: Enter your phone number and click "Call Me."
- 4. To listen over the computer: If you have a broadband connection, and a headset or a computer microphone and speakers, you may use VoIP (Internet audio) by going to the Audio menu, clicking on "Use Computer Headset," then "Call Using Computer."

<u>VIA TELEPHONE ONLY (no visual presentation)</u>: Call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the unique meeting number above. International callers may select their number from:

https://energy.webex.com/energy/globalcallin.php

VIA MOBILE DEVICES: Access to WebEx meetings is now available from your mobile device. To download an app, go to:

www.webex.com/products/web-conferencing/mobile.html

Please be aware that WebEx audio and on-screen activity may be recorded. WebEx Technical Support is available at 1 (866) 229-3239.

Muting

We greatly appreciate your cooperation in reducing unwanted noise on the audio connection by muting your line when you are not speaking. Mute your line rather than placing your phone on hold. Using WebEx, you may mute yourself by right clicking on your name in the panelists or attendees list and selecting 'Mute.' If you are only using a telephone connection, press "*6" once to mute and again to unmute.

Availability of Documents

Documents and presentations for this meeting will be available online at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-BSTD-02.

Mail Lists:

Efficiency and Building Standards listservers