

<b>DOCKETED</b>	
<b>Docket Number:</b>	22-HERS-01
<b>Project Title:</b>	2022 HERS Provider Applications for the 2022 Building Energy Efficiency Standards
<b>TN #:</b>	257444
<b>Document Title:</b>	Executive Director Recommendation to Approve the CHEERS Application to Modify its Residential Data Registry (amended)
<b>Description:</b>	EXECUTIVE DIRECTOR RECOMMENDATION TO (1) RE-CERTIFY CHEERS. AS A HOME ENERGY RATING SYSTEM PROVIDER AND (2) APPROVE MODIFICATION OF THE CHEERS 2022 ENERGY CODE RESIDENTIAL DATA REGISTRY TO INCLUDE LOW-RISE MULTIFAMILY BUILDING TYPES ***This document supersedes TN 256892***
<b>Filer:</b>	Armando Ramirez
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	6/26/2024 3:47:46 PM
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## MEMORANDUM

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**TO:** CALIFORNIA ENERGY COMMISSION

**FROM:** DREW BOHAN  
EXECUTIVE DIRECTOR  
CALIFORNIA ENERGY COMMISSION  
715 P STREET  
SACRAMENTO, CALIFORNIA 95814

**SUBJECT:** CEC EXECUTIVE DIRECTOR RECOMMENDATION FOR APPROVAL OF THE CHEERS RESIDENTIAL DATA REGISTRY APPLICATION AND RECOMMENDATION TO RE-CERTIFY CHEERS AS A HOME ENERGY RATING SYSTEM PROVIDER

**DATE:** JUNE 17, 2024

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### I. BACKGROUND

The Warren-Alquist Act directs the California Energy Commission (CEC) to establish criteria for a statewide Home Energy Rating System (HERS) program. The CEC's California HERS program regulations establish requirements for home energy rating services offered by providers (including the providers' training and certification of raters) and for the CEC's certification of providers. The regulations define a provider as an organization that administers a California HERS program.<sup>1</sup>

The 2022 Building Energy Efficiency Standards (Energy Code) requires field verification and diagnostic testing (FV&DT) of specified residential energy efficiency measures to demonstrate compliance with the Energy Code.<sup>2</sup> This testing must be performed by raters who are certified by a CEC-approved HERS provider. Additionally, the 2022 Energy Code describes the approval process as well as functional and technical requirements for a residential data registry. Finally, "[f]or residential compliance document registration, the

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<sup>1</sup> California Code of Regulations, title 20, section 1671.

<sup>2</sup> California Code of Regulations, title 24, part 1, section 10-103(a).

Registration Provider shall be approved in accordance with the requirements in Section JA7.8, and shall also be a HERS Provider approved by the CEC."<sup>3</sup>

California Home Energy Efficiency Ratings Services (CHEERS), an approved HERS provider, has applied to modify its 2022 Energy Code residential data registry to incorporate low-rise multifamily projects and compliance documents.

## II. SEQUENCE OF EVALUATION

Section 10-109(g) of the 2022 Energy Code provides that an applicant shall resubmit “an approved compliance software, alternative component package, exceptional method, data registry, or related data input software” if any modification is made.

On January 15, 2024, CHEERS submitted an application to the CEC requesting modification of its residential data registry under section 10-109(g) of the 2022 Energy Code. CHEERS submitted subsequent application materials on March 1 and March 11, 2024.

Staff determined the application to be complete. Pursuant to Title 20 of the California Code of Regulations (CCR) section 1674(c)(2), and Title 24 section 10-110(b), a public notice was posted to docket number [22-HERS-01](#).<sup>4</sup> The notice provided an opportunity for public comment, and any comments received were considered as of May 8, 2024.

Additionally, the application included instructional materials of a type described in 20 CCR sections 1674(a)(1) and 1673(a)(5). Consistent with 20 CCR 1674(f), the update to these instructional materials requires CHEERS to be re-certified as a HERS program provider. No other changes that would affect certification were identified.

Staff reviewed all information received in the complete application. Between April 4 and May 1, 2024, staff requested additional information, including additional instructions on the use of the modified data registry and improved registry functionality. CHEERS submitted revised application exhibits in response on May 13, 2024. [Exhibit 1](#), attached to this memo, provides further details.

Therefore, staff concludes that CHEERS has met the applicable requirements in the 2022 Energy Code and the requirements of 20 CCR section 1674 for re-certification as a HERS provider. General staff recommendations regarding application requirements and a regulatory checklist are [available on the CEC website](#).<sup>5</sup>

## III. CONCLUSION AND RECOMMENDATION

Pursuant to Title 24, section 10-110(e), I recommend the CEC approve the modifications to the CHEERS residential data registry.

Pursuant to Title 20, section 1674(c)4, I recommend the CEC re-certify CHEERS as a HERS provider.

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<sup>3</sup> 2022 Reference Appendices, Joint Appendix section JA7.4.1 Registration Provider

<sup>4</sup> Available at <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-HERS-01>

<sup>5</sup> Publication Number CEC-400-2022-001. Available at <https://www.energy.ca.gov/publications/2022/home-energy-rating-system-provider-application-and-recertification-process-staff>

Based on the staff review and validation of the CHEERS application, I recommend that the CEC confirm these findings, approve the CHEERS modification of its residential data registry within the scope of approval described in Exhibit 1, and re-certify CHEERS as a HERS provider.



June 11, 2024

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Drew Bohan

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Date

Executive Director

California Energy Commission

**EXHIBIT 1  
STAFF EVALUATION – CHEERS  
2022 RESIDENTIAL DATA REGISTRY MODIFICATION APPLICATION**

**SCOPE OF APPROVAL**

California Home Energy Efficiency Rating Services (CHEERS) submitted an application for approval of modifications to its residential data registry under section 10-109(g)1 of the 2022 Building Energy Efficiency Standards (Energy Code).

The residential data registry application included many updates to incorporate the registration of low-rise multifamily compliance documentation under the 2022 Energy Code. CHEERS programmed its registry to add functionality for managing low-rise multifamily projects and registering the associated documentation. CHEERS tested its programming and submitted evidence in the form of registered documents to the CEC. A list of applicable compliance documents can be found in Table 2.

**STAFF ANALYSIS**

The application included an update to instructional materials used to train and certify raters for field verification and diagnostic testing (FV&DT) for low-rise multifamily buildings and in using the provider's database. Neither CHEERS nor staff identified any other changes that would affect certification as a HERS provider.

Staff reviewed and verified the CHEERS application materials as they pertain to the requirements in the California HERS Program and the 2022 Energy Code. Table 1 lists the pertinent materials, which can be found on docket number [22-HERS-01](#).<sup>6</sup>

**TABLE 1: CHEERS LOW-RISE MULTIFAMILY REGISTRY APPLICATION MATERIALS**

<b>TN</b>	<b>Document Title</b>	<b>Submission Date</b>
254633	CHEERS HERS Provider Application - LRMF Amendment	1/15/24
254634	CHEERS Data Registry Application - LRMF Amendment	1/15/24
256768	Registered Compliance Documents Examples [version 3]	5/13/24
256767	CHEERS Data Registry Application - LRMF Amendment [revised cover letter and list of form types]	5/13/24

Staff found the residential data registry application to comply with requirements given in the 2022 Reference Appendices Joint Appendix (JA) section JA7, with some exceptions.

CEC staff tested the modified registry to validate the applicant's testing evidence. In particular, staff sought to examine functionality of the low-rise multifamily certificates of compliance (LMCC), which are new to the 2022 Energy Code. Staff found the LMCC form input interface to deviate from the approved layouts to a degree that made evaluation difficult. These form types could not be completed intuitively, and CHEERS had not prepared registry user instructions specific to the new forms.

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<sup>6</sup> Available at <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-HERS-01>

Staff requested additional instruction and improved form input interfaces between April 4 and May 2, 2024.

In response, CHEERS reduced the scope of its application by removing most of the prescriptive LRMF certificates of compliance (LMCC), limiting the compliance forms to those listed in Table 2.

CHEERS also produced additional instructions in the navigation of its registry specific to LRMF site management and document registration. These changes corrected the noncompliant parts of the application.

**TABLE 2: CHEERS 2022 ENERGY CODE LOW-RISE MULTIFAMILY COMPLIANCE DOCUMENT SCOPE OF APPROVAL**

<b>Document ID</b>	<b>Document Name</b>
LMCC-MCH-02-E	Alterations to Space Conditioning Systems
LMCC-PRF-01-E	Low-rise Multifamily Performance Compliance Method
LMCI-ELC-01-E	Electric Ready Requirements
LMCI-ENV-21-H	QII – Air Infiltration Sealing – Framing Stage
LMCI-ENV-22-H	QII – Insulation Installation
LMCI-MCH-01a-E	Space Conditioning Systems, Ducts, and Fans - Performance
LMCI-MCH-01b-E	Space Conditioning Systems, Ducts, and Fans – Prescriptive Alterations
LMCI-MCH-01d-E	Space Conditioning System, Ducts, and Fans – Performance – E+A+A
LMCI-MCH-20a-H	Duct Leakage Diagnostic Test – New Construction
LMCI-MCH-20b-H	Duct Leakage Diagnostic Test – LLDCS
LMCI-MCH-20c-H	Duct Leakage Diagnostic Test – LLAHU
LMCI-MCH-20d-H	Duct Leakage Diagnostic Test – Existing Construction
LMCI-MCH-20e-H	Duct Leakage Diagnostic Test – Sealing Accessible Leaks
LMCI-MCH-21-H	Duct Location
LMCI-MCH-22a-H	Space Conditioning System Fan Efficacy – All Zones Calling Only
LMCI-MCH-22b-H	Space Conditioning System Fan Efficacy – Every Zonal Control Mode
LMCI-MCH-23a-H	Space Conditioning System Fan Efficacy – Airflow Rate – All Zones Calling Only
LMCI-MCH-23b-H	Space Conditioning System Fan Efficacy – Airflow Rate – Every Zonal Control Mode
LMCI-MCH-23c-H	Space Conditioning System Fan Efficacy – Airflow Rate – Best That I Can Do
LMCI-MCH-23d-H	Space Conditioning System Fan Efficacy – Airflow Rate – Measurement Only – All Zones Calling Only
LMCI-MCH-24a	Building Air Leakage Diagnostic Test Worksheet – Building Enclosures and Dwelling Unit Enclosures – Single Point Test – Manual Meter

<b>Document ID</b>	<b>Document Name</b>
LMCI-MCH-24b	Building Air Leakage Diagnostic Test Worksheet – Building Enclosures and Dwelling Unit Enclosures – Single Point Test – Automatic Meter
LMCI-MCH-25a-H	Refrigerant Charge Verification – Superheat
LMCI-MCH-25b-H	Refrigerant Charge Verification – Subcooling
LMCI-MCH-25c-H	Refrigerant Charge Verification – Weigh In
LMCI-MCH-25f-E	Refrigerant Charge Verification – Packaged System Manufacturer Cert
LMCI-MCH-26-H	Rated Space Conditioning System Equipment Verification
LMCI-MCH-27b-H	Indoor Air Quality and Mechanical Ventilation – Total Vent Rate Method
LMCI-MCH-28-H	Return Duct Design and Filter Device Sizing According to Tables 160.3 A or B
LMCI-MCH-29-H	Duct Surface Area Reduction; R-Value, Buried Ducts Compliance Credit
LMCI-MCH-32-H	Local Mechanical Exhaust
LMCI-MCH-33-H	Variable Capacity Heat Pump Compliance Credit
LMCI-PLB-01-E	Multifamily Central Hot Water System Distribution – Non-HERS
LMCI-PLB-02-E	Individual Dwelling Unit Hot Water System Distribution – Non-HERS
LMCI-PLB-21-H	HERS Verified Multifamily Central Hot Water System Distribution
LMCI-PLB-22-H	HERS Verified Multifamily Hot Water Distribution – Individual Dwelling Unit
LMCV-ENV-21-H	QII – Air Infiltration Sealing – Framing Stage
LMCV-ENV-22-H	QII – Insulation Installation
LMCV-MCH-20a	Duct Leakage Diagnostic Test – New Construction
LMCV-MCH-20b	Duct Leakage Diagnostic Test – LLDCS
LMCV-MCH-20c	Duct Leakage Diagnostic Test – LLAHU
LMCV-MCH-20d	Duct Leakage Diagnostic Test – Existing Construction
LMCV-MCH-20e	Duct Leakage Diagnostic Test – Sealing Accessible Leaks
LMCV-MCH-21	Duct Location
LMCV-MCH-22a	Space Conditioning System Fan Efficacy – All Zones Calling Only
LMCV-MCH-22b	Space Conditioning System Fan Efficacy – Every Zonal Control Mode
LMCV-MCH-23a	Space Conditioning System Fan Efficacy – Airflow Rate – All Zones Calling Only
LMCV-MCH-23b	Space Conditioning System Fan Efficacy – Airflow Rate – Every Zonal Control Mode
LMCV-MCH-23c	Space Conditioning System Fan Efficacy – Airflow Rate – Best That I Can Do

Document ID	Document Name
LMCV-MCH-23d	Space Conditioning System Fan Efficacy – Airflow Rate – Measurement Only – All Zones Calling Only
LMCV-MCH-24a	Building Air Leakage Diagnostic Test Worksheet – Building Enclosures and Dwelling Unit Enclosures – Single Point Test – Manual Meter
LMCV-MCH-24b	Building Air Leakage Diagnostic Test Worksheet – Building Enclosures and Dwelling Unit Enclosures – Single Point Test – Automatic Meter
LMCV-MCH-25a	Refrigerant Charge Verification – Superheat
LMCV-MCH-25b	Refrigerant Charge Verification – Subcooling
LMCV-MCH-25c	Refrigerant Charge Verification – Weigh In
LMCV-MCH-25d	Refrigerant Charge Verification – FID
LMCV-MCH-26	Rated Space Conditioning System Equipment Verification
LMCV-MCH-27b	Indoor Air Quality and Mechanical Ventilation – Total Vent Rate Method
LMCV-MCH-28	Return Duct Design and Filter Device Sizing According to Tables 160.3 A or B
LMCV-MCH-29	Duct Surface Area Reduction; R-Value, Buried Ducts Compliance Credit (Fillable)
LMCV-MCH-32	Local Mechanical Exhaust
LMCV-MCH-33	Variable Capacity Heat Pump Compliance Credit
LMCV-PLB-21-H	HERS Verified Multifamily Central Hot Water System Distribution
LMCV-PLB-22-H	HERS Verified Multifamily Hot Water Distribution – Individual Dwelling Unit

The scope of this application does not affect the CHEERS registry approval for 2022 Energy Code single-family and nonresidential compliance documents.

The scope of this application does not affect CHEERS' certification status as a HERS provider for raters conducting FV&DT under prior code cycles.

## CONCLUSION

Staff reviewed the confidential and non-confidential information filed in docket number 22-HERS-01 and verified that all the requirements of Title 20, sections 1672 through 1674 and Title 24, Parts 1 and 6 (Energy Code) are met. Therefore, staff recommends approval of the residential data registry application for registration of 2022 Energy Code low-rise multifamily compliance documentation, with limitation to compliance form types listed in Table 2. Staff also recommends re-certification of CHEERS as a HERS provider for the 2022 Energy Code.



## ADDENDUM TO EXHIBIT 1

Regarding data registry applications, Title 24 section 10-109 presents these options:

(f) Commission Action.

The Commission may take the following actions on an application submitted pursuant to this section:

1. Approve the application unconditionally;
2. Restrict approval to specified occupancies, designs, materials, or devices; or
3. Reject the application.

CHEERS modified its application in response to staff feedback, as discussed in the staff evaluation. This allowed staff and the executive director to recommend unconditional approval. The alternatives would have been to pause the evaluation or reject the application, persisting the partial lapse in LRMF Energy Code implementation.

Despite the modified scope of the application, the residential data registration market would be fully served following CEC approval. With approval of this application, approved registries would be capable of registering documents that rely on the performance method of compliance. Approved providers would be capable of registering compliance documents that are needed for space conditioning alterations based on prescriptive compliance standards.

However, for new and existing LRMF buildings that seek broader prescriptive compliance, only one provider would be available. According to statements made to staff by both registration providers, the volume of these projects is relatively low. Staff does not anticipate a shortage of raters that would be needed to verify compliance for these projects.

CHEERS may apply later to add the missing form types for 2022 compliance.

Table 3 identifies which currently approved data registration provider would be capable of registering documents for the given LRMF project scopes:

TABLE 3: LRMF PROVISIONS, BY REGISTRY, CONTINGENT ON COMMISSION APPROVAL

LRMF Project Scope	CalCERTS, Inc.	CHEERS
Performance New Construction	Yes	Yes
Performance Additions and Alterations of Existing Buildings	Yes	Yes
Prescriptive HVAC Alterations	Yes	Yes
Prescriptive New Construction	Yes	No
Prescriptive Additions and Alterations of Existing Buildings	Yes	No