

Memorandum

To: Drew Bohan
Executive Director

Date: September 9, 2019

Telephone: (916) 654-4996

From:  Michael Sokol, Deputy Director
Efficiency Division
California Energy Commission
1516 Ninth Street
Sacramento CA 95814-5512

Subject: Possible approval of CalCERTS as a Home Energy Rating System (HERS) provider for the *2019 Building Energy Efficiency Standards* and approval of the CalCERTS HERS data registry as a residential data registry.

Summary

The California Energy Commission's (CEC) HERS regulations, Title 20, Chapter 4, Article 8, Sections 1670 through 1675, authorize the CEC to approve organizations to be HERS providers. HERS providers oversee the training, certification, and functions of HERS raters. The Title 20 regulations detail the application requirements, the functions and systems that must be included in a HERS provider's program, and other criteria that must be met for CEC approval.

HERS raters conduct Field Verification and Diagnostic Testing (FV and DT) services required to demonstrate compliance with the Title 24, Part 6, Building Energy Efficiency Standards to ensure the correct installation of specific building features and equipment that have previously been prone to incorrect installation. The procedures for conducting FV and DT are detailed in sections RA2 (for residential construction) and NA1 (for non-residential construction) of the *2019 Building Energy Efficiency Standards Reference Appendices*. Detailed protocols for FV and DT for specific building features and equipment are also included. These appendices are adopted at the same time as the standards.

CalCERTS submitted an application for approval as a HERS provider to oversee HERS raters conducting FV and DT testing for the *2019 Building Energy Efficiency Standards*. Staff has reviewed the CalCERTS application and has found that it satisfies the requirements specified in the HERS regulations, the *2019 Building Energy Efficiency Standards*, and its related reference appendices. Staff has also found that the CalCERTS HERS data registry meets the requirements for a residential data registry.

Action Requested

Staff requests approval to present CalCERTS as a HERS provider for conducting FV and DT under the *2019 Building Energy Efficiency Standards*; and approval of the CalCERTS HERS data registry as a residential data registry at the October 14 business meeting.

STATE OF CALIFORNIA

Energy Resources Conservation And Development Commission

In the matter of,	)	Resolution NO.: XX-XXXX-XX
)	
CalCERTS, Inc. Application for (1) Certification as	)	EXECUTIVE DIRECTOR
a California Home Energy Rating System (HERS)	)	RECOMMENDATION TO
Provider for Field Verification and Diagnostic	)	(1) CERTIFY CalCERTS, INC. AS
Testing and (2) Approval of CalCERTS' Data	)	A HERS PROVIDER FOR
Registry under the HERS Regulations and the 2019	)	FIELD VERIFICATION
<i>Building Energy Efficiency Standards</i>	)	AND DIAGNOSTIC TESTING,
	)	AND (2) APPROVE CalCERTS'
	)	DATA REGISTRY UNDER THE
	)	HERS REGULATIONS AND THE
	)	2019 BUILDING ENERGY
	)	EFFICIENCY STANDARDS
)	
)	
)	
	)	September 9, 2019

I. Executive Summary

The Warren-Alquist Act directs the California Energy Commission (CEC)¹ to establish criteria for a statewide Home Energy Rating System (HERS) program.² No home energy rating services may be performed in California, unless those services are certified according to the program established by the CEC.³ The CEC's California HERS program regulations⁴ establish requirements for home energy rating systems, for 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.

The *2019 Building Energy Efficiency Standards* (2019 Standards) require Field Verification and Diagnostic Testing (FV and DT) of specified residential energy-efficiency measures to demonstrate compliance,⁵ which must be performed by HERS raters who are certified by the CEC-certified HERS providers.⁶ Additionally, the 2019 Standards require data registries to meet functional and technical requirements.⁷

CalCERTS, Inc. has applied for certification as a California HERS program provider, authorized to administer a California HERS program overseeing HERS raters conducting FV and DT under the

¹ Also known as the State Energy Resources Conservation and Development Commission. See Pub. Resources Code, § 25200.

² Pub. Resources Code, § 25942, subd. (a).

³ Pub. Resources Code, § 25942, subd. (c).

⁴ Cal. Code Regs., tit. 20, § 1670–1675. Unless otherwise noted, all subsequent citations are to the Cal. Code Regs., tit. 20.

⁵ Cal. Code Regs. tit. 24, pt. 6, § 150.0, § 150.1, § 150.2 ; 2019 Residential Appendix RA2 & RA 3.

⁶ § 1670(i) [Field Verification and Diagnostic Testing].

⁷ Cal. Code Regs., tit. 24, pt. 1, ch. 10, § 10-109 [data registries]; Reference Joint Appendix JA7.

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2019 Standards. CalCERTS has also applied for approval of its residential data registry under the 2019 Standards. The nonconfidential parts of the application are available for review on the 2019 HERS Provider's Application docket located at:
<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-HERS-01>.

Based upon staff's review of CalCERTS' application, I recommend that the CEC certify CalCERTS, Inc., as a California HERS program provider, authorized to administer a California HERS Program overseeing HERS raters conducting FV and DT under the 2019 Standards, and approve CalCERTS' HERS data registry as a residential data registry.

II. Background

CalCERTS has applied to the CEC for:

1. Certification of its California HERS Program under the HERS regulations, for demonstrating compliance with the 2019 Standards; and
2. Certification of its HERS Data Registry as a residential data registry under the 2019 Standards.

III. CalCERTS' Application Meets the Requirements for HERS Providers Under Sections 1672 through 1674

CalCERTS has submitted an application demonstrating that it meets the requirements established by HERS Regulations⁸ for FV and DT showing compliance with the 2019 Standards.

The 2019 Standards are an update and revision to the 2016 Standards. The CEC approved CalCERTS as a HERS Provider under the 2016 Standards. CalCERTS' current application under the 2019 Standards does not affect CalCERTS as a provider for Whole-House Ratings and Building Performance Contractors for which they were previously approved. Those unaffected requirements for Whole-House Ratings and Building Performance Contractors are noted below.

A. CalCERTS' Application Includes the Required HERS Provider Program Documents

As required by Section 1674(a)(1), CalCERTS submitted a "complete copy of all rating procedures, manuals, handbooks, rating system descriptions, and training materials."

CalCERTS' application includes training materials tailored to the compliance requirements and diagnostic testing procedures in the 2019 Standards.

⁸ §§ 1672–1674.

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B. CalCERTS' Application Meets the Applicable Requirements of Section 1672

As required by Section 1674(a)(2), the CalCERTS' application includes a detailed explanation of how CalCERTS' rating system for the HERS raters that it certifies meets the applicable requirements of Section 1672.

1. Section 1672(a): California Whole-House Home Energy Rating or California Home Energy Audit. A California Whole-House Home Energy Rating or a California Home Energy Audit shall be completed for a home only if the rating or audit is completed as specified by the HERS regulations and the HERS Technical Manual.⁹
2. Section 1672(b)(1): Data Collection. For ratings of existing homes that produce a California Whole-House Home Energy Rating or a California Home Energy Audit, each rating system shall have documented procedures for site inspection and diagnostic testing of Energy-Rated Homes.
3. Section 1672(b)(2): Data Collection. For ratings of newly constructed homes that produce a California Whole-House Home Energy Rating, procedures for initial testing, sampling, resampling, and corrective action specified in the Residential Appendices to the 2019 Standards shall be followed.

Sections 1672(a), 1672(b)(1), and 1672(b)(2) are not applicable in this situation, as these sections specifically address requirements for which CalCERTS has already received approval and for which approval is not affected by the implementation of the 2019 Standards.

4. Section 1672(b)(3): For ratings of newly constructed homes to establish compliance with the 2019 Standards, through field verification and diagnostic testing, data shall be collected as specified by the Residential Appendices to the 2019 Standards. A rater who collects such data and performs such diagnostic tests shall be certified by the provider as a California FV and DT rater.

As stated in the application, CalCERTS-certified Raters are required to collect, and report to CalCERTS, data as required by the 2019 Reference Appendices to the Standards.

5. Section 1672(c): Data Analysis Requirements.
6. Section 1672(d): Energy Uses Rated.
7. Section 1672(e): On-Site Renewable Generation.
8. Section 1672(f): Rating Scale.
9. Section 1672(g): Method of Calculating TDV Energy.
10. Section 1672(h): Utility Bill Analysis.
11. Section 1672(i): Recommendations for Energy Efficiency Improvements.

⁹ Publication CEC-700-2008-012, December 2008. See §§ 1670, 1671.

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12. Section 1672(j): Greenhouse Gas Emissions.
13. Section 1672(k): HERS Report.

Sections 1672(a) through 1672(k) are not applicable in this situation, as these sections specifically address requirements for which CalCERTS has already received approval and for which approval is not affected by the implementation of the 2019 Standards.

14. Section 1672(l): Field Verification and Diagnostic Testing. The provider and rater shall provide FV and DT of energy efficiency improvements as a condition for those improvements to qualify for the 2019 Standards compliance credit, as required by the 2019 Standards and associated Reference Appendices.

CalCERTS' application describes the appropriate oversight and quality assurance inspections of CalCERTS-certified HERS raters to ensure that these raters are providing complete and accurate FV and DT as required by the 2019 Standards, including the associated Reference Appendices.

15. Section 1672(m): Provider and Rater Conduct and Responsibility. Providers and raters shall not knowingly provide untrue, inaccurate, or incomplete rating information or report rating results that were not conducted in compliance with these regulations. Providers and raters shall not knowingly accept payment or other consideration in exchange for reporting a rating result that was not in fact conducted and reported in compliance with these regulations.

In addition to the oversight and quality assurance inspections indicated in number 14 above, CalCERTS' application requires all HERS raters certified by CalCERTS to agree to and sign rater agreements and registry agreements that explicitly state the conduct and responsibility requirements for CalCERTS-certified HERS raters.

C. CalCERTS' Application Meets The Applicable Requirements of Section 1673

Section 1674(a)(3) requires the following detailed explanation of how each applicable part of Section 1673 is met by CalCERTS.

1. Section 1673(a)(1): Each provider's training program shall include classroom and field training of applicants for California Whole-House Home Energy Rater certifications, incorporating training in analysis, theory, and practical application in specified areas.
2. Section 1673(a)(2): California Home Energy Inspector applicants shall be required to be trained by the provider in specified areas.
3. Section 1673(a)(3): California Home Energy Analysts applicants shall be required to be trained by the provider in specified areas.

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Sections 1673(a)(1) through 1673(a)(3) are not applicable in this situation, as these sections specifically address requirements for which CalCERTS has already received approval and for which approval is not affected by the implementation of the 2019 Standards.

4. Section 1673(a)(4): California Field Verification and Diagnostic Testing. Raters shall be required to receive specific training in Sections 1673(a)(1)(H) and (K) through (M) and general training in Sections 1673(a)(1)(A) to (G) and (P).

CalCERTS' application complies with this section as it includes training materials for rater certification for FV and DT. This curriculum sufficiently includes all of the content to provide classroom and field training and certification on the topics required in Section 1673(a)(1).

5. Section 1673(a)(5): The training for all certifications and raters shall include thorough instruction in using the provider's rating system and database.

CalCERTS' training curriculum includes thorough instruction on the use of the CalCERTS rating system and database. This includes, but is not limited to, instruction in the correct completion and registration of compliance documentation, the correct use of diagnostic testing equipment, description of conflict of interest provisions, HERS rater ethics, and the correct use of the CalCERTS registry.

6. Section 1673(a)(6): The training shall require California Whole-House Home Energy rater applicants to satisfactorily perform a rating for at least one home that includes field verification and diagnostic testing in the presence and under the direct supervision of the provider's trainer or quality assurance reviewer. The training shall require California Field Verification and Diagnostic Testing rater applicants to satisfactorily perform FV and DT for at least one home in the presence and under the supervision of the provider's trainer or quality assurance reviewer. The provider shall review and approve these ratings for accuracy and completeness.

For this specific approval process, this section is only applicable to the quality assurance evaluation of Field Verification and Diagnostic Testing rater applicants, and not Whole House rater applicants, as CalCERTS has already received approval for the training or certification of California Whole-House Home Energy Raters. CalCERTS has developed a Quality Assurance Program as required by Section 1673(i) and has a staff of Quality Assurance Reviewers, who are certified HERS raters with field experience to provide the quality assurance oversight of HERS raters conducting FV and DT.

7. Section 1673(a)(7): The provider shall require each applicant to take an Energy Commission-approved written and practical test that demonstrates his or her competence in all subjects specified in Section 1673(a)(1). The provider shall retain all results of these tests for five years from the date of the test.

CalCERTS' application demonstrates compliance with this section as it includes CEC-approved training materials and tests for rater certification for FV and DT.

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8. Section 1673(a)(8): Each provider may establish an Energy Commission-approved challenge test that evaluates competence in each area addressed by the provider's training program.

CalCERTS' application demonstrates compliance with this section as it includes CEC-approved training materials and tests for rater certification for FV and DT.

9. Section 1673(a)(9): Programs incorporating Building Performance Contractors shall provide specific training in all areas specified in Section 1673(a)(1). These programs shall be submitted by the provider for individual review and approval by the Energy Commission.

This section is not applicable in this situation, as this section specifically addresses the requirements for Building Performance Contractor certification, for which CalCERTS has already received approval and for which approval is not affected by the implementation of the 2019 Standards.

10. Section 1673(b): Rater Agreements. As a condition of rater registry under Section 1673(d), each provider shall ensure that a rater applicant who has met the applicable requirements of Section 1673(a) has entered into an agreement with the provider to provide home energy rating and FV and DT services in compliance with these regulations.

CalCERTS has a rater agreement for the 2019 Standards which will be required to be signed by all CalCERTS-certified raters once CalCERTS obtains CEC approval of its California HERS program.

11. Section 1673(c): Building Performance Contractor Agreements.

This section is not applicable in this situation, as this section specifically addresses the requirements for Building Performance Contractor agreements, a category for which CalCERTS has already received approval and for which approval is not affected by the implementation of the 2019 Standards.

12. Section 1673(d): Rater and Building Performance Contractor Registry.

CalCERTS is required to ensure that its raters meet all applicable requirements of Sections 1673(a) and 1673(b). CalCERTS's application includes a training curriculum as required by Section 1673(a) and rater agreements as required by Section 1673(b). This application is not applicable to the Building Performance Contractor designation.

13. Section 1673(e): Data Maintenance.

The application shows that the database, web-based interface, and reporting functionality developed by CalCERTS fulfill all of the data retention requirements of Section 1673(e). Per these requirements, data will be retained for a minimum of ten (10) years.

14. Section 1673(f): Field Verification and Diagnostic Testing Evaluation.

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The application shows that the database, web-based interface, and reporting functionality developed by CalCERTS address all of the data retention requirements of Section 1673(e)(2) for a minimum of 10 percent of a random sampling of homes actually field verified and diagnostically tested annually, or 500 such homes annually, whichever is less. CalCERTS will provide this information to the CEC annually.

15. Section 1673(g): Data Submittal. Upon the Energy Commission's request, but not more frequently than annually, a provider shall submit to the Energy Commission information recorded pursuant to Section 1673(e) and provide the Energy Commission ongoing access to the provider's database.

The application shows that CalCERTS will submit to the CEC the information collected pursuant to Section 1673(e) and will provide the CEC with ongoing access to the database maintained pursuant to that section.

16. Section 1673(h): Training Materials Retention. Each provider shall retain for at least five years after the last date they are used, at least one copy of all materials used to train raters.

The application shows that CalCERTS will retain, for at least five years after the date they are used, at least one copy of all materials used to train raters.

17. Section 1673(i): Quality Assurance. Each provider shall have a quality assurance program meeting the required elements.

CalCERTS' application shows that it has developed a quality assurance program that meets the requirements of Section 1673(i) and has a designated quality assurance manager and a staff of quality assurance reviewers, all of whom are experienced HERS raters. CalCERTS has also developed a complaint response system in accordance with the requirements of Section 1673(i)(5).

18. Section 1673(j): Conflict of Interest.

The HERS regulations require that providers be "independent entities" from raters. Section 1673(j), states:

- (1) Providers shall be independent entities from raters.
- (2) Providers and raters shall be independent entities from the builder and from the subcontractor installer of energy efficiency improvements field verified or diagnostically tested.
- (3) Providers and raters shall be independent entities from any firm or person that performs work on the home for a California Home Energy Audit or a California Whole-House Home Energy Rating.¹⁰

¹⁰ §1673(j)(3) exempts raters who are working as or for a Building Performance Contractor approved as specified in §1674(e) of the regulations and in the HERS Technical Manual, from being independent entities from firms or persons

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Section 1671 defines “independent entity” and “financial interest” as follows:

Independent Entity means having no financial interest in, and not advocating or recommending the use of any product or service as a means of gaining increased business with, firms or persons specified in Section 1673(j).

Financial Interest means an ownership interest, debt agreement, or employer/employee relationship.¹¹

In its application, CalCERTS acknowledges and fully supports the conflict-of-interest rules and states it will comply with the requirements of Section 1673(j).

19. Section 1673(k): Improvement Measures Cost Database. Each provider shall develop and maintain a database of the cost of implementing the efficiency improvement measures specified in the HERS Technical Manual. The database shall contain statewide standardized cost values and regional adjustment factors.

This section pertains to Whole-House HERS Ratings, for which CalCERTS has already received approval and for which approval is not affected by the implementation of the 2019 Standards.

D. CalCERTS’ Contact Information

CalCERTS, Inc.
31 Natoma St., Suite 120
Folsom, CA 95630
(916) 985-3400

E. Articles of Incorporation and By-Laws Provided

In its application, CalCERTS has provided its articles of incorporation and by-laws.

F. Identification of CalCERTS’ Owners, Parents, Subsidiaries, and Affiliates.

In its application, CalCERTS has identified its owners as Michael C. Bachand and Katherine M. Bachand.

working on the home. This exception does not apply to California Field Verification and Diagnostic Testing raters performing Field Verification and Diagnostic Testing of newly constructed homes or alterations to existing homes to verify compliance with the requirements of the *Building Energy Efficiency Standards*.

¹¹ Per section 1671, financial interest does not include ownership of less than five percent of the outstanding equity securities of a publicly traded corporation.

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G. Statement of Accuracy

In its application, CalCERTS states that ratings are accurate, consistent, and uniform. The other requirements of Section 1674(a)(8), regarding utility bill estimates and recommendations on cost-effective energy-efficiency-improvement measures, are not applicable to this application.

H. Statement of Compliance

In its application, CalCERTS has stated that it understands and will not knowingly fail to comply with the requirements of these regulations.

I. Declaration of Veracity

CalCERTS certified under penalty of perjury that all statements in the application are true.

IV. CalCERTS' Residential Data Registry Meets the Applicable Requirements

As described below, CalCERTS's application demonstrates that its HERS Data Registry meets the requirements of a residential data registry in Section 10-109 and Joint Reference Appendix JA7 of the 2019 Standards.

A. CalCERTS' Application Meets the Applicable Requirements of Section 10-109

Section 10-109 requires residential data registries to provide for registration, when required by the 2019 Standards of all residential compliance documentation and the nonresidential Certificates of Verification.

CalCERTS' application demonstrates compliance with compliance documentation necessary to meet the 2019 Standards.

B. CalCERTS' Application Meets the Applicable Requirements of Reference Joint Appendix JA-7

Contingent upon approval of a document repository by the CEC, Reference Joint Appendix JA-7 requires export of a copy of the registered compliance document to the CEC Document Repository. The export consists of an XML file that is validated against an XML schema.

CalCERTS' application demonstrates compliance with XML validation for residential and applicable nonresidential forms.

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V. Conclusion

After considering the application, I find that CalCERTS, Inc., meets the requirements described above for Providers for FV and DT as required by the *2019 Building Energy Efficiency Standards*, California Code of Regulations, Title 24, Part 6, and associated administrative regulations in Part 1, Chapter 10, and the California HERS program regulations, Title 20, Section 1670 et seq., including but not limited to the applicable provisions in Sections 1672 and 1673.

Accordingly, I recommend that the CEC confirm these findings and certify CalCERTS, Inc., as a California HERS Program provider for FV and DT and certify CalCERTS' HERS Data Registry as a residential data registry.



DREW BOHAN
Executive Director
California Energy Commission



Date

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION

WHEREAS, on September 19, 2019, the Executive Director of the State Energy Resources Conservation and Development Commission (California Energy Commission) provided his recommendation, attached hereto as "Exhibit A," that the Commission:

- (1) certify CalCERTS, Inc. as a Provider under the California Home Energy Rating System (HERS) Program, to administer the HERS provider program for HERS raters conducting Field Verification and Diagnostic Testing (FV & DT) for energy efficiency measures, as required by the *2019 Building Energy Efficiency Standards*, pursuant to Public Resources Code, section 25942, and California Code of Regulations, Title 20, sections 1670 et seq.; and
- (2) certify CalCERTS' data registry as it meets the requirements of a residential data registry in section 10-109 and Joint Reference Appendix JA7, of the *2019 Building Energy Efficiency Standards*; and

WHEREAS, the October 14, 2019 Business Meeting was the first available meeting, after the Executive Director provided his recommendation, for the Energy Commission to consider this matter.

THEREFORE BE IT RESOLVED, that the Energy Commission confirms the Executive Director's findings, adopts his recommendation and:

- (1) certifies CalCERTS as a HERS provider to administer the CalCERTS HERS provider program for HERS raters conducting FV & DT as required by the *2019 Building Energy Efficiency Standards*; and
- (2) certifies CalCERTS' data registry, as required by Section 10-109 and Joint Reference Appendix JA7, of the *2019 Building Energy Efficiency Standards*.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the CEC held on October 14, 2019.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite
Secretariat