

Implementation Guidelines for HERS_{H2O}® and WaterSense Labeled Homes, Version 2

1.0 Purpose

RESNET has the responsibility for accrediting HERS_{H2O} Providers. This document outlines the process for becoming a HERS_{H2O} Provider, certifying HERS_{H2O} raters, quality assurance responsibilities of RESNET and Providers, use of the calculation spreadsheet, and the verification and labeling of homes meeting the EPA's WaterSense requirements.

1.1 Scope

This document sets out the procedures by which RESNET will implement the HERS_{H2O} whole house water efficiency rating program for RESNET accredited Providers, HERS® Raters and RESNET accredited rating software vendors.

2.0 HERS_{H2O} Provider Accreditation Eligibility

All current RESNET accredited Rating Quality Assurance Providers (QA Provider) are eligible to become HERS_{H2O} Rating Providers, participate in HERS_{H2O} ratings and verify WaterSense homes, after meeting the following criteria:

- The QA Provider's Quality Assurance Designee/s (QA Designee) shall complete the HERS_{H2O} online training program and complete three HERS_{H2O} test ratings. The test ratings should be conducted on a site visit to a completed new home or an existing home and must use the HERS_{H2O} Inspection Checklist, Inspection Guidance Document and Calculation Spreadsheet.
- The QA Designee shall become familiar with the HERS_{H2O} Inspection Checklist and Inspection Guidance document as well as the calculation spreadsheet.
- The QA Provider shall complete the HERS_{H2O} Provider online application and submit the appropriate application fee to RESNET.
- The QA Provider shall use only the RESNET HERS_{H2O} calculation spreadsheet for all ratings, until RESNET announces the transition to software.
- Only the QA Provider's QA Designees that have successfully completed the HERS_{H2O} online training and test ratings shall be responsible for overseeing HERS_{H2O} ratings.
- QA Designees that will be overseeing WaterSense version 2.0 certifications, shall also complete the WaterSense 2.0 training on the RESNET Training portal, as outlined in Section 6.0 of this document.

2.1 HERS_{H2O} Provider Application Fees:

- There is a one-time \$500 application fee

2.2 HERS_{H2O} Provider Quality Assurance Fees:

RESNET quality assurance fees for uploading HERS_{H2O} ratings are as follows:

- When a HERS_{H2O} rating is completed in conjunction with a HERS rating: \$2.50
- When a HERS_{H2O} rating is completed with no HERS rating: \$5.00

2.3 Provider Responsibilities

All accredited HERS_{H2O} Providers shall assure that the following minimum responsibilities are duly discharged:

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- All QA Providers shall provide Raters with the RESNET created HERS_{H2O} Inspection Checklist and Inspection Guidance Document for the on-site collection and appropriate testing and inspection procedures. These documents are for guidance only and are not required to be submitted to RESNET.
- All Raters conducting HERS_{H2O} ratings are RESNET Certified Home Energy Raters and have successfully completed the HERS_{H2O} online training program.
- All Rating Field Inspectors conducting field inspections for HERS_{H2O} are certified as a HERS_{H2O} RFI and have successfully completed the HERS_{H2O} online training program.
- All WaterSense certifications under version 2.0 are in accordance with Section 6.0 of this document.

3.0 Certifying HERS_{H2O} Raters and HERS_{H2O} Rating Field Inspectors Eligibility

All active certified RESNET Home Energy Raters and Rating Field Inspectors are eligible to conduct HERS_{H2O} ratings after completing the online training program and meeting the following criteria:

- Work under the auspices of a RESNET accredited HERS_{H2O} QA Provider.
- Complete three HERS_{H2O} test ratings. The test ratings should be conducted on a site visit to a completed new home or an existing home and must use the HERS_{H2O} Inspection Checklist, Inspection Guidance Document and Calculation Spreadsheet or RESNET accredited HERS_{H2O} Software Tool.
- Raters shall submit the completed HERS_{H2O} XML rating file to their QA Provider for upload to RESNET.
- Become proficient with the RESNET HERS_{H2O} Inspection Checklist and Inspection Guidance document as well as the calculation spreadsheet.
 - HERS_{H2O} Rating Field Inspectors shall also work under the direct supervision of a certified HERS_{H2O} Rater and shall only be responsible for conducting field verification of HERS_{H2O} components.
 - HERS_{H2O} Raters shall conduct all HERS_{H2O} ratings using the RESNET accredited HERS_{H2O} calculation spreadsheet or RESNET accredited HERS_{H2O} Software Tool.

- HERS_{H2O} Raters and HERS_{H2O} Rating Field Inspectors shall comply with the RESNET Code of Ethics.

4.0 HERS_{H2O} Calculation Spreadsheet and Software

All HERS_{H2O} calculation tools shall be accredited by RESNET. A list of RESNET accredited HERS_{H2O} software tools can be found on the RESNET website.

Software tools seeking RESNET accreditation shall comply with the following minimum requirements:

- All calculations shall be in accordance with ANSI/RESNET/ICC 850.
- Software shall produce an XML file that can be successfully uploaded to the RESNET Registry.
- Verification of all WaterSense version 2 mandatory items shall be indicated in the software and XML file.
- Submit a minimum of five test ratings, as XML files, to RESNET for review. These test ratings shall demonstrate that the software produces results consistent with RESNET's HERS_{H2O} Calculation Spreadsheet. The test ratings shall be from five geographically diverse locations in the United States, including: the southwest, northwest, upper midwest, southeast and northeast.
- Adhere to the most current version of the HERS_{H2O} Registry Schema
- Provide designated RESNET staff with a non-expiring license to the accredited software tool. This access must allow the rating, as submitted to the Building Registry, to be replicated in its entirety, for the purpose of quality assurance and verification.
- Submit the HERS_{H2O} Software Accreditation Application and application fee to RESNET.
- Execute the HERS_{H2O} End User License Agreement
- Execute the HERS_{H2O} Software Tools Provider Accreditation Agreement.
- Renew software accreditation annually.

If a RESNET accredited HERS_{H2O} software chooses to produce the HERS_{H2O} Rating Certificate and WaterSense Label for Homes, rather than using what is generated through the RESNET Registry, they shall comply with the following requirements:

- The HERS_{H2O} Rating Certificate shall match the version created by RESNET.
- The WaterSense Certificate and Labels shall comply with the U.S. Environmental Protection Agency's WaterSense Program Mark Guidelines.
- All certificates and labels shall be approved by RESNET prior to implementation.
- Software shall not issue the HERS_{H2O} Rating Certificate until the rating has been successfully submitted to the RESNET Registry and issued a Registry ID number.
- Software shall not issue the WaterSense Certificate or Labels unless the home has a HERS_{H2O} Score of 70 or less and has met the WaterSense version 2 mandatory requirements and the Rating has been successfully submitted to the RESNET Registry and issued a Registry ID number.

Application and Accreditation Fees: The annual fee for accreditation as a HERS_{H2O} software tool is \$500. There is a non-refundable application fee of \$250. If the application for accreditation is approved, the \$250 application fee will be credited to the accreditation fee.

5.0 HERS_{H2O} Quality Assurance Requirements

5.1 Quality Assurance file review (QA file reviews)

For each HERS_{H2O} Rater, the Provider’s QA Designee shall be responsible for a QA file review of the greater of one (1) home or ten percent (10%) of the Rater's total of homes, annually. QA file review for HERS ratings and HERS_{H2O} ratings can be done on the same home.

During the transition period from the calculation spreadsheet to software, the QA file review should consist of verification of the items input into the “H2O Inspection Checklist” with the inputs in the HERS H2O Calculation Spreadsheet. Any inconsistencies between the two inputs should be brought to the attention of the Rater.

5.2 Quality assurance field review (QA field review).

For each HERS_{H2O} Rater, the Provider’s QA Designee shall be responsible for an on-site QA field review of the greater of one (1) home or one percent (1%) of the HERS_{H2O} Rater's total of homes, annually. QA field reviews for HERS ratings and HERS_{H2O} ratings can be done on the same home. QA field reviews shall include the minimum rated features in Section 5.4. The QA Designee’s results must be no more than three percent (3%)(+/-) variation in the HERS_{H2O} Index from the HERS_{H2O} Index result as determined by the QA Designee.

5.3 QA field reviews for HERS_{H2O} Rating Field Inspectors (RFIs)

For HERS_{H2O} Raters utilizing HERS_{H2O} Rating Field Inspectors (RFI’s), the QA Designee shall ensure that a QA field review is completed on the greater of one (1) home or one percent (1%) of each RFI’s total of homes, annually. The RFI QA field reviews may fulfill all or a portion of the HERS_{H2O} Rater’s QA field review requirement.

5.4 Minimum Rated Features

Quality Assurance reviews, at a minimum, shall include the following minimum rated features, as applicable to each rating under review.

Building Element	Minimum Rated Feature
1. Toilet	Flush volume for each toilet as measured on-site or from manufacturer’s data.

Implementation Standards for HERS_{H2O} 2020 National Rollout

2. Shower/Bath	As imprinted on the product, stated by manufacturer in product documentation, or tested via flow rate test in the field.
3. Bathroom Faucet	As imprinted on the product, stated by manufacturer in product documentation, or tested via flow rate test in the field.
4. Kitchen Faucet	As imprinted on the product, stated by manufacturer in product documentation, or tested via flow rate test in the field.
5. Clothes Washer	Washer capacity (cubic feet) from manufacturer's data or the CEC Appliance Efficiency Database or the EPA ENERGY STAR website for all clothes washers located within the Rated Home.
6. Dishwasher	Capacity of the dishwasher (in place settings) as included in the manufacturer's data, labeled energy factor (cycles/kWh) for all dishwashers located within the Rated Home.
7. Water Softener	Gallons of water used per 1,000 grains of hardness removed.
8. Hot Water Distribution	Insulation R-value of pipe insulation, type of recirculation system, length of pipe
9. Outdoor Water Use	Irrigation system type (automatic or manual), lot size, irrigated area (square feet)
10. Pool/Spa	Indicate presence or absence of a pool or spa.
11. Service Water Pressure	Service pressure of water being supplied to the home, as established by the setting of an installed pressure-reducing valve OR the setting of an installed pressure tank OR written documentation from the water supplier that service pressure to the site is ≤ 90 psi OR an on-site static pressure test.

6.0 Certifying and Labeling WaterSense Homes under Version 2.0

Prior to issuing the WaterSense v2.0 label, the HERS_{H2O} rater shall ensure, that a builder partnership agreement is in place between the Environmental Protection Agency WaterSense Program and the builder. To verify the partnership, the Rater should check the WaterSense website for a current list of builder partners. If the builder is not listed on the WaterSense website, the partnership can be verified by contacting the WaterSense Helpline at (866) WTRSENS (987-7367) or watersense@epa.gov.

The Rater shall confirm that a home meets the mandatory requirements of the WaterSense Specification for Homes, Version 2.0 and that the home meets the appropriate HERS_{H2O} Index target score of 70 or less. The Rater shall indicate that the WaterSense Mandatory Requirements have been met. The Rater shall also complete the WaterSense v2.0 training on the RESNET Training Portal prior to issuing WaterSense v2.0 labels. The Rater shall document

the certification decision, and provide to the builder partner, the WaterSense label and certificate for each certified home, which includes:

- A certification statement that the home has been certified to meet the WaterSense Specification for Homes
- The name of the builder partner
- The name/company of the authorized verifier
- Home Certification Organization: RESNET
- The address or lot number of the certified home
- The date of certification

At the time the WaterSense label is issued, the Rater shall also supply the builder partner with guidelines on proper use of the WaterSense program marks.

Terms and Definitions

HERS_{H2O} Rater: a certified RESNET HERS Rater who has successfully completed the HERS_{H2O} online training program

HERS_{H2O} Rating Field Inspector: a certified RESNET Rating Field Inspector who has successfully completed the HERS_{H2O} online training program