



RESNET® HERS_{H2O}® Implementation Guidelines

Updated: December 2025

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 RESNET-accredited HERS_{H2O} software, 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, Rating Field Inspectors and RESNET accredited rating software providers.

1.2 Adoption of Standard

ANSI/RESNET/ICC 850-2020 shall be used for the calculation of the HERS_{H2O} Index Score for any dwelling or townhouse permitted prior to July 1, 2026, but shall not be used for any dwelling unit that is not a dwelling or townhouse.

ANSI/RESNET/ICC 850-2025 shall be used for the calculation of the HERS_{H2O} Index Score for any dwelling unit in a Residential Building or Commercial Building as follows:

- Voluntary compliance for any dwelling unit permitted prior to July 1, 2026.
- Mandatory compliance for any dwelling unit permitted after July 1, 2026.

2.0 HERS_{H2O} Provider Accreditation Eligibility

2.1 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:

2.1.1 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.

2.1.2 The QA Designee shall become familiar with the HERS_{H2O} Inspection Checklist and Inspection Guidance document as well as the calculation spreadsheet.

2.1.3 The QA Provider shall complete the HERS_{H2O} Provider online application and submit the appropriate application fee to RESNET.

2.1.4 The QA Provider shall use only the RESNET HERS_{H2O} accredited software.

2.1.5 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.

2.1.6 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 7.0 of this Standard.

2.2 Provider Responsibilities

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

2.2.1 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.

2.2.2 All Raters conducting HERS_{H2O} ratings are RESNET Certified HERS Raters and have successfully completed the HERS_{H2O} online training program.

2.2.3 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.

2.2.4 All WaterSense certifications under version 2.0 are in accordance with Section 7.0 of this document.

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

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

3.1.1 Work under the auspices of a RESNET accredited HERS_{H2O} QA Provider.

3.1.2 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.

3.1.3 Raters shall submit the completed HERS_{H2O} rating file to their QA Provider for upload to RESNET.

3.1.4 Become proficient with the RESNET HERS_{H2O} Inspection Checklist and Inspection Guidance document.

3.1.5 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.

3.1.6 HERS_{H2O} Raters shall conduct all HERS_{H2O} ratings using the RESNET accredited HERS_{H2O} calculation spreadsheet or RESNET accredited HERS_{H2O} Software Tool.

3.1.7 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.

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

4.1.1 All calculations shall be in accordance with the current version

ANSI/RESNET/ICC 850 as adopted by RESNET and Normative Appendix A of these guidelines.

4.1.2 Software shall produce an XML file that can be successfully uploaded to the RESNET Registry.

4.1.3 Verification of all WaterSense version 2 mandatory items shall be indicated in the software and XML file.

4.1.4 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 at least five geographically disperse locations in the United States, including: the southwest, northwest, upper midwest, southeast and northeast.

4.1.5 Adhere to the most current version of the HERS_{H2O} Registry Schema

4.1.6 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.

4.1.7 Submit the HERS_{H2O} Software Accreditation Application and application fee to RESNET.

4.1.8 Execute the HERS_{H2O} End User License Agreement

4.1.9 Execute the HERS_{H2O} Software Tools Provider Accreditation Agreement.

4.1.10 Renew software accreditation annually.

4.2 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:

4.2.1 The HERS_{H2O} Rating Certificate shall match the version created by RESNET.

4.2.2 The WaterSense Certificate and Labels shall comply with the U.S. Environmental Protection Agency's WaterSense Program Mark Guidelines.

4.2.3 All certificates and labels shall be approved by RESNET prior to implementation.

4.2.4 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.

4.2.5 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.

4.3 Rating Software Changes

When a new version of a HERS_{H2O} software tool is released, the new version shall be used for Ratings on Dwelling Units or Sleeping Units with a Building Permit Date on and after the following timelines:

- i. The 6-month anniversary of the software release date,
- ii. If the software version was released in response to an amendment, the Mandatory Compliance Date determined pursuant to section 502.5 and 502.7 of MINHERS,
- iii. A date specified by the RESNET Board of Directors.

Alternatively, the date of the Certified HERS Rater's or RFI's first site visit, the date of the application of the permit, or the date of the contract on the home, or the date of an application for low-income tax credits or government administered competitive financing for a project meeting the State or local government definition for low income or affordable housing are permitted to be used as the Building Permit Date.

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.

QA file review shall consist of review of the inputs in software against the plans, specifications and documentation for the home. Any discrepancies found should be brought to the attention of the certified professional.

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.
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 Sampling Requirements for HERS_{H2O} Ratings

Sampling of HERS_{H2O} Ratings and WaterSense Labeled Homes shall be in accordance with Sections 6.1 and 6.2.

6.1 Sampling for Dwelling Units in Multifamily Projects.

Sampling for dwelling units in multifamily projects shall be in accordance with Chapter 6 of the RESNET HERS® Standards.

6.2 Sampling for Dwellings and Townhouses.

Sampling for dwellings and townhouses shall be in accordance with items 1-8.

- Homes may be grouped with up to seven in each sample set.
- Each sample set shall be assigned a unique Sample Set ID which shall be included in the rating file submitted to RESNET.
- The seven homes should be anticipated to have their irrigation systems installed within a 30-day period.
- The seven homes shall be within the same metro housing market, defined as the core-based statistical area (CBSA) created by the U.S. Office of Management and Budget.
- The seven homes in each sample should be grouped based on similar lot sizes and/or expected irrigated area.
- Where the Residential Irrigation Capacity Index (RICI) is included in the rating, one in each of the seven homes shall have the irrigation flow rate tested to determine the gallons per minute flow rate of all emitters.
 - All homes in the sample shall be assumed to have the same flow rate as the tested home.
- At least one home in the sample shall have the indoor and outdoor minimum rated features verified.

Where it is not possible to test one in every seven homes, due to seasonal conditions, the following assumptions shall be used to determine flow rates of the irrigation system:

Emitter Type	GPM/emitter
Drip emitters	0.1
Microspray	0.5
Spray	1.5

7.0 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

HERS_{H2O} Provider: A RESNET Accredited Rating Quality Assurance Provider that has been accredited by RESNET in accordance with Section 2.0 of these guidelines to provide quality assurance oversight of HERS_{H2O} Ratings and WaterSense Labeled Homes.

Normative Appendix A

Revisions to ANSI/RESNET/ICC 850-2025

The following are revisions to ANSI/RESNET/ICC 850-2025 to align the standard with the RESNET® HERS® Standards implementation of ANSI/RESNET/ICC 301-2022 for the RESNET HERS.

Revise ANSI/RESNET/ICC 850-2025 as follows:

- 4.3.1. Determining Daily Reference Home Fixture Water Use.** Reference Home daily fixture water use shall be calculated as follows:

~~$$refFgpd = 14.6 + 10 * Nbr$$~~

(Eq 4.3-2)

For one- and two-family dwellings and townhouses

~~$$refFgpd = 14.3 + 10.17 * Nbr$$~~

For all other dwelling units and sleeping units

~~$$refFgpd = 21.75 + 8.46 * Nbr$$~~

- 4.3.2. Determining Daily Reference Home Hot Water Waste.** Reference Home daily hot water waste shall be calculated as follows:

~~$$refWgpd = 9.8 * Nbr^{0.43}$$~~

(Eq 4.3-3)

For one- and two-family dwellings and townhouses

~~$$refFgpd = 9.95 * Nbr^{0.399}$$~~

For all other dwelling units and sleeping units

~~$$refFgpd = 11.27 * Nbr^{0.323}$$~~

- 4.3.3. Determining Daily Reference Home Dish Washer Water Use.** Reference Home dish washer water use shall be calculated as follows:

~~$$refDWgpd = \frac{(88.4 + 34.9 * Nbr) * 8.16}{365}$$~~

(Eq 4.3-4)

~~Which simplifies to:~~

$$\text{refDWgpd} = 1.97 + 0.7802 * \text{Nbr}$$

$$\text{refDWgpd} = \text{SCY} * 8.16 / 365$$

For one- and two-family dwellings and townhouses

$$\text{SCY} = 123.7 + 16.2 * \text{Nbr}$$

For all other dwelling units and sleeping Units

$$\text{SCY} = 135.7 + 13.5 * \text{Nbr}$$

Where:

Nbr= number of bedrooms

~~(88.4+34.9*Nbr)~~SCY = best fit regression equation for dishwasher standard cycles per year using data from the 2005 Residential Energy Consumption Survey.

~~8.16 = gallons per cycle from the DOE Technical Support Document from the NAECA standard in effect in 2006~~

This value is determined in accordance with ANSI/RESNET/ICC 301

4.3.4 Determining Daily Reference Home Clothes Washer Water Use. Reference Home daily clothes washer water use shall be calculated as follows:

$$\text{refCW}_{\text{gpd}} = \frac{3.0 * 11.4 * \text{ACY}}{365}$$

(Eq 4.3-5)

$$\text{refCWgpd} = \text{SCY} * 5.31 / 365$$

For one- and two-family dwellings and townhouses

$$\text{SCY} = 189.5 + 32.9 * \text{Nbr}$$

For all other dwelling units and Sleeping Units

$$\text{SCY} = 213.9 + 27.5 * \text{Nbr}$$

where

5.31 = gallons per cycle for reference clothes washer

SCY = Standard Cycles per Year based on 2005 Residential Energy Consumption Survey data

~~3.0 = reference washer capacity (CAPw) in ft³~~

~~11.4 = reference integrated water factor (IWF) in (gal/cyc) per ft³~~

~~ACY = Adjusted Cycles per Year = (164 + 46.5 * Nbr)~~

~~Nbr = number of bedrooms~~

4.5.5 Determining Daily Clothes Washer Water Use for the Rated Home. Rated Home daily clothes washer water use shall be calculated as follows:

$$CW_{gpd} = \frac{CAPw * IWF * ACY}{365} \quad (\text{Eq 4.5-6})$$

Where:

CAPw = washer capacity in cubic feet = the manufacturer's data or the CEC database or the EPA Energy Star website

IWF = Integrated Water Factor from manufacturer's data [gal/cyc)/ft³]

ACY= Adjusted cycles per year

Determining ACY:

$$ACY = \frac{(164 + 46.5 * Nbr) SCY}{((3.0 * 2.08 + 1.59) / (CAPw * 2.08 + 1.59))}$$

For one- and two-family dwellings and townhouses

$$SCY = 189.5 + 32.9 * Nbr$$

For all other dwelling units and Sleeping Units

$$SCY = 213.9 + 27.5 * Nbr$$

Where:

CAPw = the capacity of the clothes washer in ft³

SCY = Standard Cycles per Year based on 2005 Residential Energy Consumption Survey data

$((3.0 * 2.08 + 1.59) / (CAPw * 2.08 + 1.59))$ = best fit regression equation to adjust the standard cycles per year to account for occupancy and size of clothes washer. Based on 2005 Residential Energy Consumption Survey data.

4.5.6 Determining Daily Dishwasher Water Use for the Rated Home. Rated Home daily dish washer water use shall be calculated as follows:

$$DW_{gpd} = \frac{((88.4 + 34.9 * Nbr) SCY * (12/dWcap) * gal/cycle)}{365} \quad (\text{Eq 4.5-7})$$

For one-and two-family dwellings and townhouses

$$SCY = 123.7 + 16.2 * Nbr$$

For all other dwelling units and sleeping units

$$SCY = 135.7 + 13.5 * Nbr$$

Where:

Nbr= number of bedrooms in the Rated Home

dWcap= capacity of the dishwasher in the Rated Home (in place settings) as included in the manufacturer's data

~~(88.4+34.9*Nb)~~SCY = best fit regression equation for standard dishwasher cycles per year using data from the 2005 Residential Energy Consumption Survey.

The following revision to ANSI/RESNET/ICC 850-2025 is to clarify the calculations for gray water.

4.5.7.1 Using Gray Water for Toilet Flushing. Where a Rated Home has a gray water system to flush toilets, daily toilet water use for the Rated Home shall be reduced by 80 percent of the gray water collected or the water use associated with the toilets connected to the Gray Water System, whichever is less. When calculating the supply water serving a gray water system, the calculations shall capture the number and type of fixtures and whether the clothes washer is connected to the system. Where not all lavatories and showers are connected to the gray water system, supply water to the system shall be prorated as follows:

For lavatory faucets:

$$\frac{\text{Lavatory faucets serving gray water system}}{\text{Total lavatory faucets in home}} * LavF_{gpd} \quad (\text{Equation 4.5-8})$$

For showers:

$$\frac{\text{Showers serving gray water system}}{\text{Total showers in home}} * Shower_{gpd} \quad (\text{Equation 4.5-9})$$

LavF_{gpd} = daily lavatory faucet water use for the rated home determined in accordance with Section 4.5.3

Shower_{gpd} = daily shower water use for the rated home determined in accordance with Section 4.5.1.