



Rater News Summer 2023

Welcome to the Summer 2023 issue of *Rater News*
Brought to you by the Washington State University Energy Program

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News from Jonathan Jones

WSU Energy Program Discontinues RESNET HERS Providership Program



As you now know, the WSU Energy Program (WSU-EP) recently made the decision to discontinue its HERS Provider program. I understand you have questions: What does this mean to you? What lie's ahead? And, why discontinue the providership?

What does this mean?

Simply put, WSU-EP will no longer be registering homes with RESNET. It is a significant change; and, we are fully aware of the impact. Many of you, whether from the industry or our staff, have been loyal supporters of the WSU Energy Program and in particular, the HERS Program. We sincerely value the dedication you have shown. This decision will require verifiers currently utilizing our services to select another provider to register their homes before the end of the year, by December 31, 2023.

What lie's ahead?

Rest assured, WSU-EP will continue to provide RESNET Educational Provider services, albeit with a brief pause for revision and redesign. We remain committed to offering HERS rater training classes and certifications as well as ENERGY STAR® training classes. Our aim is to return with a comprehensive and well-prepared educational program for the HERS industry. Many individuals in

the Pacific Northwest (PNW) region and beyond look to WSU-EP for exceptional education and training. We have full intentions of continuing to provide this exceptional education and training.

Why discontinue the providership?

Expressing our reasons is not an easy task. I will say, it was a challenging and difficult decision for us to make. We sought out experts, industry leaders, and even enlisted the help of a business consultant who generously offered their assistance. Additionally, we consulted with former provider leaders who had embarked on similar journeys. Ultimately, everyone arrived at the same conclusion—it is time. It is difficult to fathom the point when the market transformation you set out to achieve has been accomplished. It is even more challenging to let go. WSU-EP's HERS program was born out of the necessity for providers in a time and place where they were not readily available in the Pacific Northwest (PNW) market. Today, several national and smaller providers are operating in the PNW. As a result of the news of our closure, two or three new providers are already in the process of establishing themselves. These developments indicate the market has indeed transformed. When coupled with the exciting opportunities presented by new tax credits and rebate policies, we have a market environment that will be self-sustaining.

As I reflect upon the years I have spent working with WSU-EP program, I am grateful for the multitude of wonderful experiences and cherished memories. As an appraiser, I vividly recall being captivated by Gary Nordeen's energy code classes, where he would stand before us in his biker boots, imparting his wisdom. As an energy verifier, I often found myself engaged in discussions with David Hales, who would passionately express his opinions on building science, even deeming things as "Pseudo Science!" Furthermore, I can never forget the delightful presence of Andy Gordon and Marla Hacklander. Whenever I needed assistance in the HERS department, Marla was just a phone call away. All of us here at the WSU Energy Program are firmly convinced that the Residential New Construction Energy Efficiency programs in total, including the HERS Program, will continue to be one of the emulated models throughout the nation moving forward and that all of you will continue to be key players and stakeholders in the processes as they continue to mature.

Program News

WSU Energy Program Earns 2023 ENERGY STAR® MARKET LEADER AWARD

Congratulations NW Raters. Once again NW builders and NW rater organizations through the Pacific Northwest continue to receive the [Energy STAR Market Leader Award](#). This award recognizes your organization's significant commitment and success in providing ENERGY STAR certified homes for families. Read more about how you as raters or the builders you work with or your organization sponsors/participants can utilize the [Market Leader Award Communications Toolkit here](#).



Meet Rick Blumenthal

New to the WSU Energy Code Team is Rick Blumenthal. Rick has been involved in the housing industry for his entire career. Educated in Environmental Conservation and Planning at the University of New Hampshire, he has spent the last half of his career focused on producing high

performance sustainable buildings. For 34 years Rick had his own general contracting business. For many of those years, Rick also held the position as consultant for Construction Resources and Solutions, analyzing building performance and conducting energy audits. For nearly four years Rick was the Lead Energy Advisor and Technical Specialist for the RePower Bainbridge Energy Challenge. Later he held the position of Building Science Specialist and Training Manager for Knauf Insulation. Most recently, Rick worked for Cross 2 Design Group, an architectural and consulting firm in Seattle involved in building envelope water proofing and air barrier design. Rick will be working with the WSU Energy Codes team answering questions and writing FAQs. He has a wealth of experience and knowledge and is looking forward to answering your questions and providing you with support. Welcome Rick.



WSU Energy Conscious Construction Programs

WSU's School of Design and Construction programs in Energy Conscious Construction (ECC) offer an interdisciplinary emphasis in energy-efficient residential buildings, with a focus on the state of Washington and covering all phases of the design process from design through construction and post occupancy evaluation. The ECC offers both graduate and undergraduate certificates. The programs are interdisciplinary, affordable and quick, prepare you for Washington State's Progressive initiatives, and are convenient. Coursework is delivered asynchronously allowing you to complete at your convenience. For more information: [Click here](#).

RESNET News

Have HERS® Job Openings? Register with RESNET and BTF at JobstoBuild.com

A recent Bloomberg article highlights the need for qualified workers in energy efficiency. It states, "Making the labor crunch even worse, the demand for energy efficiency services is set to skyrocket as homeowners start claiming their share of the \$8.8 billion in rebates the climate bill provides for home upgrades."... In response, RESNET and the Building Talent Foundation (BTF) have launched the new RESNET-branded landing page on JobsToBuild.com, BTF's career platform to help connect employers to its network of over 400 talent partnerships to help find the right employees—

RESNET, Blog, May 16, 2023: <https://www.resnet.us/articles/have-hers-job-openings-register-with-resnet-and-btf-at-jobstobuild-com/>

RESNET Releases 2023 Statistical Abstract Trends in HERS Rated Homes

Each year RESNET® looks at the trends across all homes that have received a HERS® rating. RESNET® has released its statistical abstract of homes that were HERS® rated in 2022, in the "Trends in HERS Rated Homes – A Statistical Abstract 2023". The report first looks at broad national-level trends in the number of HERS® ratings and average index scores. Next, the report covers state-level trends, including the total number of HERS® ratings in each state and the percentage of new homes that received a HERS® Rating—RESNET, Blog, June 1, 2023:

<https://www.resnet.us/articles/resnet-releases-2023-statistical-abstract-trends-in-hers-rated-homes/>

ENERGY STAR News

Technical Bulletin: Pre-Drywall Inspection is Always Required

Partners have periodically asked if there are alternative verification protocols available when a builder or developer installs drywall before the pre-drywall inspection has been completed by the Rater. This technical bulletin affirms that the only recourse when drywall has been installed prior to visual verification is to remove the drywall to allow the inspection to occur. It also instructs Raters on how to assess what drywall must be removed, explains how EPA will reinforce its current policy, and provides action items for Raters and builders— EPA Energy Star, May 1, 2023: [Click here to read more and access the technical bulletin.](#)

Newsbriefs

Determining Envelope Hole Size: ELA vs. EfLA vs. EqLA

One great feature of the DM32 and DM32X digital gauges is the ability to show the total hole size if all of the holes, cracks, and gaps in the building envelope were added up into one large hole. But there are several options for this. The most common that are often discussed in the building science and HVAC industries are effective leakage area (ELA) and equivalent leakage area (EqLA). So, what is the difference between the two? Which one is correct?—Retrotec, April 13, 2023: <https://retrotec.com/blog/post/ela-vs-eqla>

This Couple Spent \$48,000 to Convert their Portland, Oregon, Home to 'Net Zero': 'The Future is Efficient and Renewable'

When Ryan Shanahan decided to buy a house in Portland, Oregon, he knew from the start that he wanted his future home to be "net zero" ... This couple spent \$48,000 to convert their Portland, Oregon, home to 'net zero': 'The future is efficient and renewable' ... To be net zero is to cut greenhouse gas emissions to as close to zero as possible, with any remaining emissions reabsorbed from the atmosphere, by oceans and forests, for instance, according to the United Nations—Celia Fernandez, *CNBC*, April 22, 2023: <https://www.cnbc.com/amp/2023/04/22/couple-net-zero-portland-oregon-unlocked.html>

Washington's Heat Pump Push Hits a Snag – 2021 Code Edition Effective Date Move to October 2, 2023

A controversial requirement that new homes and apartments built in Washington be warmed using electric heat pump systems rather than natural gas won't take effect July 1 as planned. In an emergency meeting Wednesday, the Washington State Building Code Council delayed implementation of code changes until late October... The move came after a federal appeals court last month scrapped similar rules in California, and as opponents to Washington's policy filed their own legal challenge here—Jerry Cornfield, *Washington State Standard*, May 24, 2023: <https://washingtonstatestandard.com/2023/05/24/states-push-for-heat-pumps-in-new-homes-hits-a-snag/>

Building the Case for Passive House Standards

Find insights from Katrin Klingenberg, Co-Founder and Executive Director of the Passive House Institute U.S. (PHIUS), on what's coming next, in an interview with Anca Gagiuc, "Building the Case for Passive House Standards" published in *Multi-Housing News*, June 22, 2023. An architect by training, Klingenberg built her own passive house in Urbana, Ill in 2022, which encouraged her to launch the Community Housing Development Organization to develop affordable passive multifamily homes—Anca Gagiuc, *Multi-Housing News*, June 22, 2023:

<https://www.multiphousingnews.com/making-the-case-for-passive-house-standards/>

Washington Residential Code Evaluation [Report]

The Northwest Energy Efficiency Alliance (NEEA) contracted with TRC to conduct a residential code evaluation in Washington, examining new construction single family homes built under Washington State Energy Code (WSEC) 2018. The evaluation estimated compliance with the code, primary space and water heating fuel selection, the proportion of homes with gas hook ups and gas-using appliances, builders' selection of energy credits, and other characteristics including envelope, heating and cooling, ventilation, and water heating choices—Northwest Energy Efficiency Alliance, July 6, 2023: [Click here to read more and download report.](#)

Training Opportunities

The State of the Industry Update: webinar July 20, 2023 11:00 AM PT

Attend Ekotrope's *State of the Housing Industry Update*, where Ekotrope experts will discuss the state of the updated 45L Tax Credit and discuss where they are seeing a drop in compliance rates. This webinar will help you better understand the status of 45L, and prepare for upcoming changes. For more information and to register: [Click here.](#)

Earth Advantage Education: Launch of Oregon Residential Construction Career Hub

Earth Advantage has launched a new website to help bridge the gap between employers and new workers in the residential construction industry. On this new website, employees can post jobs, get involved with the workforce and learn more about training programs. New workers can explore career pathways, browse training related to all aspects of residential construction and find jobs. To explore this new resource: [Click here.](#)

ENERGY STAR Residential New Construction webinars

Need to brush up on ENERGY STAR Single-Family Version 3.1 or Multifamily Version 1.1? Interested in learning more about ENERGY STAR NextGen Homes? Visit the Residential New Construction ENERGY STAR recorded webinars webpage for recently recorded webinars:

https://www.energystar.gov/partner_resources/residential_new/educational_resources/energy_star_webinars/recorded_webinars



2023 Buildright Conference

Did you miss the 2023 Buildright Conference? You can access the summaries of the sessions, presentation slides, and learn about the speakers on the buildright website:

<http://www.buildrightpdx.com/sessions/>



Conferences and Events

Train the Trainer for HVAC Instructors September 12-14, Minneapolis, MN

This course will give instructors hands-on time with TEC equipment, as well as access to training materials which can be used for training your students. For more information and to register [Click here.](#)

RaterFest! September 22-24, Empire, CO

EnergyLogic's annual conference for home energy raters will be situated in the mountains of Colorado. Speakers include: Nick Hurst, Program Manager at Indoor airPlus at US EPA; Scott Doyle, Technical Director of Quality Assurance & Training at RESNET; and Asa Foss, Program Manager, ENERGY STAR NexGen. Attendees are eligible to earn RESNET® and ICC CEUs. For more information and to register [click here.](#)



High Performance Home Builder Summit October 10-12, Salt Lake City, UT

The annual EEBA High Performance Home Builder Summit presents new research and best practices for building high performance houses. This summit provides exhibits, presentations, and opportunities for networking for architects, home builders, analysts, and energy raters to building high performance, healthy, sustainable homes. For more information and to register [click here.](#)



2023 RESNET Conference, November 15-17, San Diego, CA

The Annual RESNET Conference is back and will be held in person November 15-17, 2023 in San Diego, CA. This conference provides a diverse and dynamic venue where you can obtain usable solutions in an ever-changing industry. See new products, network with colleagues, and earn continuing education credits. Timely and relevant session topic themes: Water Efficiency & HERS H2O®, HERS® as the Gold Standard, Energy Codes, Latest Developments in Building Science, Workforce Development are just some of the sessions topic themes planned. For more information and to register [click here.](#) The registration page also contains a "what might you be interested in seeing presentations about session survey".



Technical Q&As Answered

Conditioned Crawlspaces in Washington State

Can crawlspaces be conditioned in Washington?

Conditioned crawlspaces are not mentioned in the WSEC-R, and so the WSEC-R is silent on this issue. Ventilation and sealing requirements for conditioned crawlspaces are per Section R408.3 “Unvented Crawl Spaces” of the [2018 IRC \(with Washington amendments\)](#). Regarding insulation requirements, we recommend conditioned crawlspaces be treated in the same manner as conditioned basements.

Are there advantages of conditioned crawlspaces in Washington State?

Conditioned crawlspaces clearly have benefits in warm, humid climates, such as the Southeastern United States, where homes are cooled. In climates where warm humid air enters through the vents of a vented crawlspace, moisture can condense on the cold framing members and may eventually result in rot and mold problems. Air conditioning energy use is also reduced because ground coupling assists in cooling the home passively.

The Pacific Northwest, however, is a heating-dominated climate and our summers are not humid. So vented crawlspaces here do not have as much of an issue with condensation on cold floor surfaces. In our climate, conditioned crawlspaces must be power vented directly to the exterior by a continuously operated exhaust fan operating at a rate of 1 cubic foot per minute for each 50 square feet of crawlspace floor area. It is recommended that the floor above the crawlspace be well sealed without any direct return or supply air between the house and the crawlspace.

In most areas of the Pacific Northwest, conditioned crawlspaces incur an energy penalty due to coupling to the cool ground in the winter, as well as due to power venting, although indoor air quality is improved because of negative pressure of the crawlspace created by power venting. However, if the fan fails, indoor air quality worsens because the air now entering the house from the crawlspace does not benefit from passive venting.

The benefits of a conditioned crawlspaces depends on completely sealing the ground or slab. Six mil polyethylene sheeting with overlapping, taped seams meets the minimum code requirements. It is recommended that the areas to be taped be cleaned prior to application of the tape. However, many do not consider this minimum sufficiently durable over the long run and recommend 20 mil PVC, TPO or other reinforced sheeting with the material manufacturer’s recommendation for sealing the seams as best practice. The ground cover must be continuous, including at all support piers and columns. The edges of the vapor retarder must extend up the stem wall at least 6 inches and must be attached and sealed to the stem wall. The attention to detail and materials required for a complete and durable seal increases the material and labor costs.

In summary, the advantage of conditioned crawlspaces in Washington is:

- Improved indoor air quality, assuming power venting continues to run into the future without failure.

The disadvantages are:

- Energy penalty in most locations in this region
- Worsened indoor air quality if the fan fails or is disabled

- Greater installation labor and material cost to achieve best practices for air and moisture sealing.

More Information:

Conditioned crawlspaces in the Pacific Northwest:

- “Unvented Crawl Spaces: Whose idea was that?” by Gary Nordeen, WSU Extension Energy Program, September 25, 2008, https://www.energy.wsu.edu/documents/AHT_Conditioned%20crawl%20spaces%5B1%5D.pdf
- “Vented and Conditioned Crawlspace Performance in Marine and Cold Climates of the Pacific Northwest” by David Hales, Mike Lubliner and Andrew Gordon, *ASHRAE Journal, Buildings XI*, 2010, https://web.ornl.gov/sci/buildings/conf-archive/2010%20B11%20papers/174_Hales.pdf
- “The Scary Crawlspace” by David Hales, *Home Performance Contracting*, January/February 2011, [Click here to read article.](#)

To read more WSU Energy Code FAQs: [Click here.](#)

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