

Additional Resources

These links provide useful information for complying with the Washington State Energy Code, especially for those who are new to building science.

Building Components

Hot Water

- [Northwest Energy Efficiency Alliance \(NEEA\)](#):
 - [Advanced Water Heating Specification](#) for single-family residences advances higher performing electric and gas heat pump water heaters
- [Advanced Water Heater Specification Qualified Products List for HPWHs](#)
- [BetterBuiltNW](#):
 - [Heat Pump Water Heater Technical Guide](#) for detached single-family new construction and additions greater than 500 sf.
- [Energy Star version 3.2 for Washington and Oregon](#)

Insulation

- [Tip Sheet 25: Converting a Garage to Living Space](#) (includes floor insulating guidance)
- [Spray-Applied Foam Insulation](#) tip sheet from the Seattle Department of Construction and Inspections.
- [North American Insulation Manufacturers Association](#)
Empowers homeowners and professionals to make informed insulation choices.
- [Spray Polyurethane Foam Alliance](#)
Develops tools designed to educate and influence the construction industry with the benefits of spray polyurethane foam roofing, insulation, coatings, and specialty installations.
- [Foam Sheathing Coalition](#)
Educates building code officials, design professionals and residential builders about the benefits of using insulating foam sheathing products.
- [Structural Insulated Panel Association](#)

Fenestration - Windows & Doors

- [National Fenestration Rating Council - Certified Products Directory](#)
Search for NFRC-certified windows, doors, or skylights that [match your criteria](#).

Thermal Envelope, Air Leakage & Ventilation

- [Air Barrier Association of America](#)

Creates resources to help quantify energy savings based on using air barriers and increasing the airtightness of buildings.

Equipment & Appliance Efficiency

- [AHRI Directory of Certified Product Performance - HVAC & DHW](#)
- [Energy Star - Appliances](#)

Building Codes & Best Practices

- [BetterBuiltNW](#)
Accelerating the adoption of energy-efficient building practices in residential new construction.
- [Energy Trust of Oregon](#)
- [EPS Field Guide - Advanced Efficient Homebuilding: 2020 Edition](#)
- [NEEA Codes and Standards Program](#)
Supports stakeholders to develop, adopt, and implement energy codes.
- [2019-2020 Washington Residential New Construction Code Study](#), June 2020
[2018 Washington State Energy Code Progress Toward 2030: Report to Legislature](#), Nov 2020
- [Washington Association of Building Officials \(WABO\)](#)
WABO activities include promoting building codes and standards that safeguard public health and safety, assisting in development of national and state codes, and preserving local government control of code administration.
- [Washington State Building Code Council](#)
Provides independent analysis and advice to the legislature and the Governor's Office on state building code issues.
- [Washington State Department of Commerce - Building Strategy Update](#)
- Washington State Department of Labor and Industries
[Manufactured Home Permits and Inspections](#), [Tiny Houses](#)

Building Science Consultants & Resources

- [BetterBuiltNW](#) and [Earth Advantage](#)
Our training partners provide on-demand and live trainings that address best practices to meet and exceed code requirements.
- [HVAC Sizing Tool](#)
This free, cloud-based tool for HVAC technicians, designers and home builders provides a quick room-by-room heating and cooling design load calculator for accurate HVAC system sizing. Find additional technical resources, live

and online trainings, and marketing resources to support and promote energy-efficient home building at [BetterBuiltNW](#).

- [Building America Solution Center](#)
Provides residential building professionals with access to expert information on high-performance design and construction topics, including air sealing and insulation, HVAC components, windows, indoor air quality, and much more.
- [Building Science Advisor](#): Provides expert advice on building envelope system performance from industry's best researchers and building scientists.
- [Residential Energy Services Network](#)
Strives to make the energy use of all homes transparent, thereby driving residential sector energy use toward net zero.
- [Building Performance Association](#)
[Back to Work: COVID-19 Resource Guide](#)
- [Air Conditioning Contractors of America](#)
National trade association furthering the interests of HVAC residential contracting businesses.
- [Energy & Environmental Building Alliance](#)
A building science leader that offers training and technical assistance for its members.
- [Home Ventilating Institute](#) & [HVI Certified Products Directory](#)
- [Passive House Northwest](#)
A group of Certified Passive House Consultants and other individuals and organizations who promote highly energy efficient construction through implementing the passive house concept.
- [Wufi Passive House](#): Provides a wide range of resources about Passive House design.
- [Northwest EcoBuilding Guild](#)
Empowers people through education to transform the built environment for long-term sustainability.

Testing Tools (envelope, duct work & HVAC commissioning)

- [Retrotec](#)
Offers blower door systems, duct testing equipment, digital manometers, and other building science resources.
- [The Energy Conservatory](#) (TEC)
Leading manufacturer of performance testing tools for the building science industry.
- [Residential Energy Dynamics](#) Tools used by home performance analysts; WAP energy auditors, inspectors, and monitors; HERS raters; design professionals; building inspectors; engineers; and building science researchers.
- [Building Energy Optimization Tool](#) (BEopt)
Evaluate residential building designs and identify cost-optimal efficiency packages at various levels of whole-house energy savings along the path to zero net energy.

Rebates & Tax Credits

- Washington State Department of Commerce - [Low-Income Energy Assistance Program](#)
- Bonneville Power Administration - [Programs and measures for residential end users](#)
- Avista - [Rebates](#) available for qualified installations of residential energy-efficient equipment.
- Puget Sound Energy - [Efficiency Boost](#) rebates can help make home energy efficiency upgrades more affordable.
- [Energy Star Product Finder](#)

Air Leakage & Duct Testing Resources

- [Air Leakage Testing](#)
- [Benefits of Duct Sealing](#)
- [Blower Door Test Results Form](#)
- [Duct and Blower Door Test Hand Calculator](#)
- [Duct and Blower Door Test Calculator](#) (Excel)
- [Duct Testing Standard \(RS-33\)](#)
- [Duct Testing Affidavit \(New Construction\)](#)
- [Duct Testing Affidavit \(Existing Construction\)](#)
- [Getting to Know Your Vent. System: Exhaust Type](#)

Videos

These videos are old but still provide useful information.

["Duct Sealing for Comfort, Energy, and Indoor Air Quality"](#) (16:45 min.)

Air Leakage in Homes: The Invisible Thief (39.11 min)

- [Introduction](#) (2:19)
- [Why Air Seal?](#) (3:21)
- [Air Sealing For New Homes](#) (20:41)
- [Measuring Building Tightness](#) (4:28)
- [Air Sealing for Existing Homes](#) (5:12)
- [Combustion Safety](#) (2:50)
- [Final Thoughts](#) (1:40)

Fresh Air for a Healthier Home (29 min)

- [Play All](#) - *recommended* (29 min)
- [Why Ventilate?](#) (4:53)
- [Exhaust-only Systems](#) (5:28)

- [Integrated Systems](#) (4:07)
- [HRV/ERV Systems](#) (4:26)
- [Installation & Inspection](#) (5:10)
- [Upgrading Existing Homes](#) (5:35)

Hot Topics Archive

- [ACEEE Ducts Inside](#)
- [Additions and Ducts](#)
- [Comparing the Moisture Performance of Wood-Framed Wall Systems](#)
- [Efficient Water Heating](#)
- [Electric Heat Lock Out on Heat Pumps](#)
- [Energy Efficient Home Cooling](#)
- [Externally Applied Building Insulation](#)
- [Indoor Air Quality - Keeping Homes Dry](#)
- [Inspecting Attic Insulation](#)
- [Principles of Heat Transfer](#)
- [Unvented Attics](#)
- [Insuladd - Ceramic-Based Paint Additive](#)
- [UltraCBF rFOIL - Foil-Faced Bubble Wrap](#)
- [Unvented Crawl Spaces](#)
- [Ventilation and Indoor Air Quality Code](#)

State Building Code Council Resources

The Council establishes the minimum building, mechanical, fire, plumbing, and energy code requirements necessary to promote the health, safety, and welfare of the people of Washington, by reviewing, developing and adopting the state building code. Pages of the Council website that may be of interest to energy code users include:

- [Rulemaking](#)
- [Code Interpretations \(Answers & Opinions\)](#)
- [Public Testimony for Current Proposals Filed](#)

Previous Energy Codes

Click [here](#) to see previous Energy Codes.