



Northwest Ductless Heat Pump Project and Heat Pump Water Heater Overview

ETO Trade Ally Roundtable

Alexis Allan, Group Product Manager of Residential Sector, NEEA

Aaron Winer, Fluid Market Strategies

Agenda



About NEEA

NEEA & Energy Trust
of Oregon

NW Ductless Heat Pump Project

Heat Pump Water Heater

About NEEA



Who is NEEA?

NEEA is a non-profit organization working to maximize energy efficiency to meet our future energy needs. NEEA is supported by and works with Energy Trust of Oregon (ETO), BPA and 100+ Northwest utilities.



How NEEA works with Energy Trust of Oregon

ETO supports NEEA's work through funding and collaboration. This work compliments ETO's energy-efficiency programs.



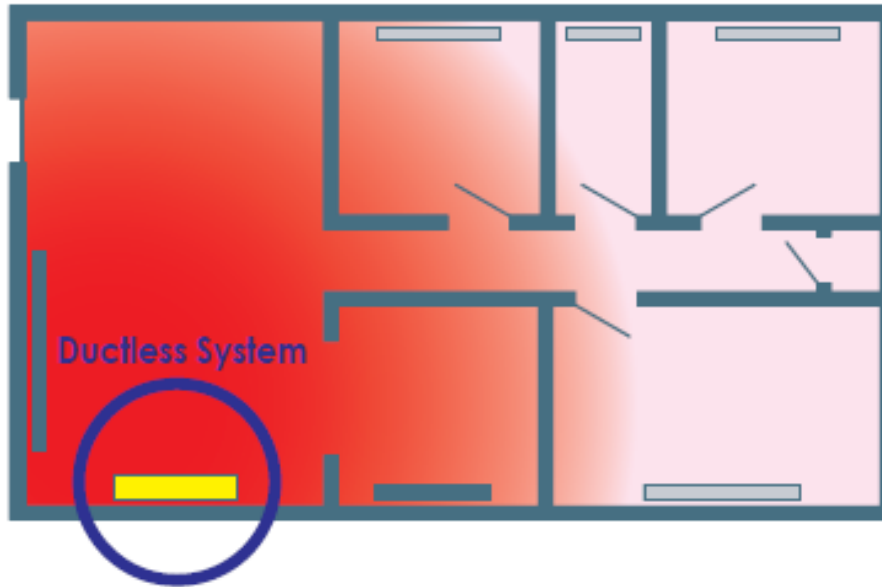
NW Ductless Heat Pump Project



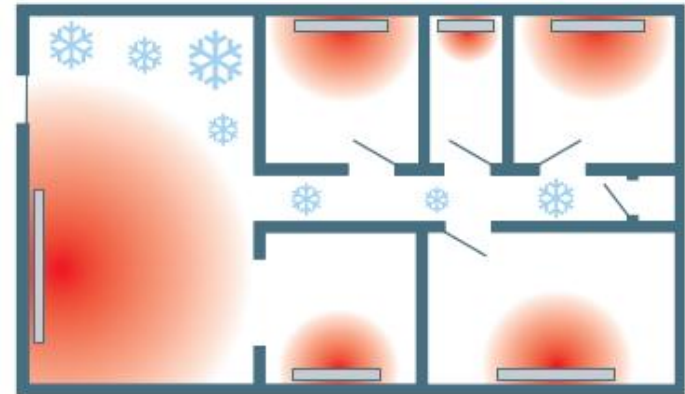
- Over 12,750 installations
- 757 installations in ETO territory

- 550+ contractors
- Nearly 650 QA inspections

Displacement Approach



Single zone systems =
97% satisfaction rate!



- Install DHP in primary living area
- Retain electric resistance heat as backup
- Maximize energy savings, cost effectiveness and sales

Master Installer Program

Benefits:

- Priority listing in the contractor finder on www.GoingDuctless.com
- Eligible to win Contractor of the Year
- Additional installation training and opportunities

Requirements:

- Attend Project orientation and installation Best Practices webinar
- Complete 15 Project installations
- Submit photo documentation of two Project installations
- Submit one homeowner testimonial

Visit GoingDuctless.com/Partners for more details!



Evolving Technology

- Floor mount units
- Ceiling cassette
- New construction



Regional Campaign

the 70s
Called **New!**
AND THEY WANT THEIR HEATER BACK.
Discover Ductless!

LEARN MORE FROM THE
KING OF HVAC

Send a 70s Photo
Enter to Win \$10,000

NEW heating
OLD heating

UPLOAD A PHOTO

ENTER HERE

Terms & Conditions

Sponsored by
MITSUBISHI
ELECTRIC
Cooling and Heating Solutions

Discover Ductless. Visit GoingDuctless.com

Participate in the Regional Campaign now through **December 31**:

- Add promotional touts to your website
- Download campaign brochure
- Re-post Facebook posts
- Share “King of HVAC” videos

Visit GoingDuctless.com to learn more!



Project Website

DUCTLESS
HEATING & COOLING SYSTEMS
Trade Partner Resources

CONTACT US | FAQ | **CONSUMER RESOURCES**

Connect with us:

UTILITIES | MANUFACTURERS & DISTRIBUTORS | CONTRACTORS | NEWS & EVENTS | ABOUT US

Driving the adoption of ductless technology.

UTILITY RESOURCES
[Utility Database User Guide](#)
[Quick Guide for Homeowners](#)
[Find Us on Conduit](#)
VIEW ALL RESOURCES

MANUFACTURERS AND DISTRIBUTORS RESOURCES
[Best Practices Guide](#)
[Oriented Contractor List](#)
VIEW ALL RESOURCES

Partner Site:
GoingDuctless.com/Partners

DUCTLESS
HEATING & COOLING SYSTEMS

FIND AN INSTALLER | CONTACT US | FAQ | **PARTNER RESOURCE**

Connect with us:

WHAT'S A DUCTLESS SYSTEM? | TESTIMONIALS | MAKING THE SWITCH | RESOURCES | ABOUT US

Keep it comfy, Northwest

DISCOVER DUCTLESS
The 70s called, and they want their heater back! Discover ductless heating and cooling systems for your home. A ductless system can save you up to 50% on your heating bill compared to electric baseboard, wall and ceiling heat. Upgrading is easy and affordable. Enter now for a chance to win \$10,000 and other prizing for exploring ductless technology.

DISCOVER DUCTLESS AND PLAY TO WIN \$10,000!
CLICK HERE

What your neighbors are saying

"It is quiet, efficient and healthy. The biggest benefit is comfortable, even temperature year-round." – Joy, Vancouver, Wash.
READ MORE

Find an installer

See the growing list of qualified installation professionals in your local community.
FIND AN INSTALLER

Consumer Site:
GoingDuctless.com

How to Get Involved

Contractor Orientation Webinar

- Market opportunities
- Utility incentives
- Marketing resources
- Installation best practices

To enroll, visit:

<http://goingductless.com/partners/news-and-events/calendar>

How to Get Involved

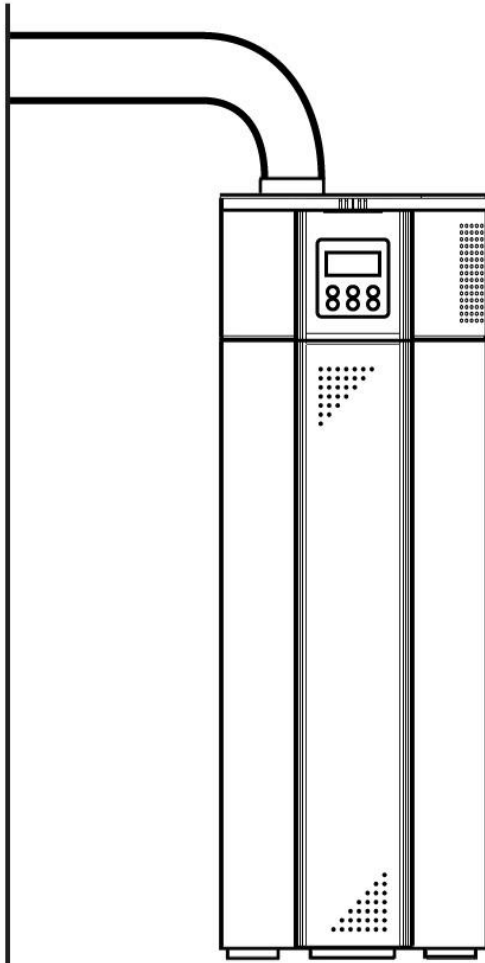
Best Practices Installation Webinar

- Quality assurance findings
- Required tools
- Installation practices
- Lessons learned from the field

To enroll, visit:

<http://goingductless.com/partners/news-and-events/calendar>

Heat Pump Water Heaters



2010-2011 Activities

- Northern Climate Specification
- 225+ retail/wholesale POP placements
- Best Practices Installation Guide
- Installer outreach and support

Heat Pump Water Heaters

Northern Climate Specification - Energy Savings & Customer Satisfaction

- Reliable energy savings in real world, real climate conditions
- Ensure customer satisfaction with hot water delivery, noise, reliability, etc.

Tier 2 Requirements

- Currently, Air Generate ATI66 meets requirements
- Cold climate performance features
- Exhaust ducting options
- Extended warranty (>10 years)
- Condensate Management

Heat Pump Water Heaters

Northern Climate Specification

	Minimum Northern Climate EF	Minimum “Northern Climate” Features	Minimum supported installation locations	Sound levels
Tier 1	1.8	<ul style="list-style-type: none">• ENERGY STAR compliance	<ul style="list-style-type: none">• Semi-conditioned• Unconditioned	dBA < 65
Tier 2	2.0	Tier 1 plus: <ul style="list-style-type: none">• Minimal use of electric heating elements• Freeze protection• Exhaust ducting option• Compressor shut-down/notification• 10 year warranty• Condensate management	<ul style="list-style-type: none">• Conditioned• Semi-conditioned• Unconditioned	dBA < 60
Tier 3	2.4	Tier 2 plus: <ul style="list-style-type: none">• Intake ducting option• Air filter management	<ul style="list-style-type: none">• Conditioned• Semi-conditioned• Unconditioned	dBA < 55

Heat Pump Water Heaters

Regional Goals

Long-term goal:

- Incorporate Northern Climate Specification into Federal standards (DOE and ENERGY STAR®)

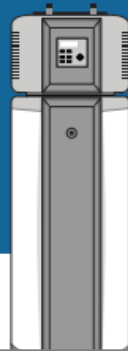
Significant energy savings opportunity:

- Potential to save the region nearly 500 aMW by 2029
- Equivalent to powering 381,500 homes each year

Heat Pump Water Heaters

Suggested Best Practices for Hybrid Water Heater Installations

A Contractor's Guide



The purpose of this guide is to promote quality hybrid water heater installations by providing installers with best practice techniques. With tips on optimizing performance and increasing customer satisfaction, this guide helps ensure each installation is successful. Always refer to manufacturers' instruction manual for detailed installation information.

Installation location

Install the hybrid water heater in a garage that is at least 1000 sq. ft. or a location that is isolated from living spaces, to minimize the amount of cold air and noise generated by the unit. If installation location is smaller, ensure proper ventilation as per manufacturers' specifications. The temperature of installation location should maintain a minimum of 45 degrees. Unit should not be installed outdoors.

Clearance

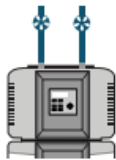
Hybrid water heaters require minimum clearances on both the top and sides of the unit and near the intake and exhaust ports on the sides of the unit. This will help to ensure proper air flow across the coil, and for maintenance of the air filter. Refer to manufacturers' instructions for clearances that apply to the unit you are installing.

Plumbing Connections

- Review manufacturers' plumbing specifications and be aware that some models have maximum water pressure limits.
- Install as per local plumbing codes and obtain appropriate installation permits.
- Ensure that condensate lines, plumbing lines, and drain ports do not conflict with each other.

Pipe Insulation

Due to installation in a garage where additional heat is provided by the hybrid water heater, it is important to fully insulate hot and cold water lines to a minimum of R 3.6.



Reduce your electric water heating cost!



Hybrid water heaters can cut electric water heating costs by 25% to 50%.

Hybrid water heaters are different from standard electric water heaters in a number of ways and are recommended for garage installations.

A hybrid water heater is right for you if:

- Your new hybrid water heater is located in a garage
- Your garage can isolate sound and cool air generated by the unit
- You currently have a standard electric water heater
- You do not downsize from a larger size water heater
- You want to be able to control your water heater - some units feature a "vacation mode"

*Hybrid water heaters are also known as heat pump water heaters

Learn more at www.SmartWaterHeat.org

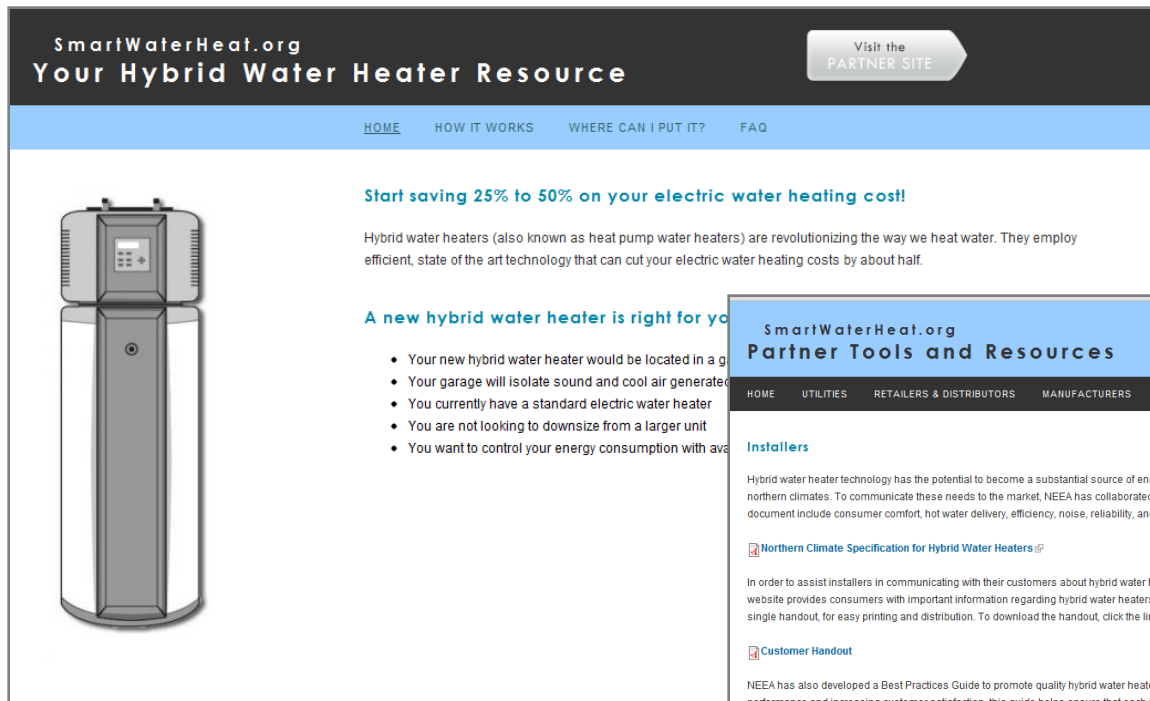


Lessons Learned / Retail Activity

- Educate consumer
- Evaluate installation location
- Install unit as per manufacturer specifications and local codes
- Educate homeowner
- Provide support options to homeowner

Heat Pump Water Heaters

SmartWaterHeat.org



SmartWaterHeat.org
Your Hybrid Water Heater Resource

Visit the PARTNER SITE

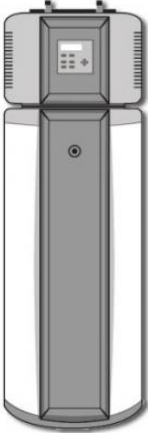
[HOME](#) [HOW IT WORKS](#) [WHERE CAN I PUT IT?](#) [FAQ](#)

Start saving 25% to 50% on your electric water heating cost!

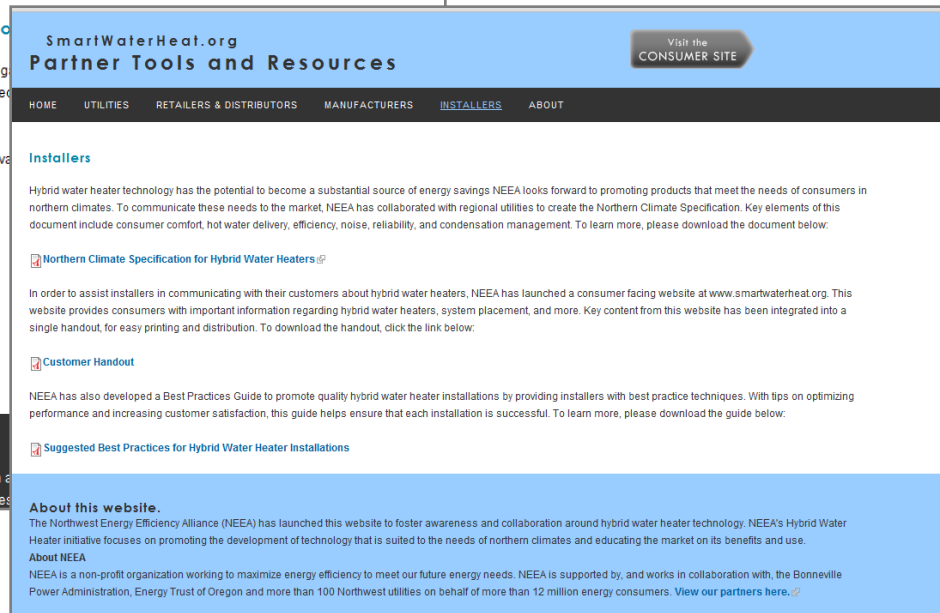
Hybrid water heaters (also known as heat pump water heaters) are revolutionizing the way we heat water. They employ efficient, state of the art technology that can cut your electric water heating costs by about half.

A new hybrid water heater is right for you if:

- Your new hybrid water heater would be located in a garage
- Your garage will isolate sound and cool air generated by the heater
- You currently have a standard electric water heater
- You are not looking to downsize from a larger unit
- You want to control your energy consumption with advanced controls



About this website.
The Northwest Energy Efficiency Alliance (NEEA) has launched this website to foster awareness and collaboration around hybrid water heater technology. NEEA's Hybrid Water Heater initiative focuses on promoting the development of technology that is suited to the needs of northern climates.



SmartWaterHeat.org
Partner Tools and Resources

Visit the CONSUMER SITE

[HOME](#) [UTILITIES](#) [RETAILERS & DISTRIBUTORS](#) [MANUFACTURERS](#) [INSTALLERS](#) [ABOUT](#)

Installers

Hybrid water heater technology has the potential to become a substantial source of energy savings. NEEA looks forward to promoting products that meet the needs of consumers in northern climates. To communicate these needs to the market, NEEA has collaborated with regional utilities to create the Northern Climate Specification. Key elements of this document include consumer comfort, hot water delivery, efficiency, noise, reliability, and condensation management. To learn more, please download the document below:

[Northern Climate Specification for Hybrid Water Heaters](#)

In order to assist installers in communicating with their customers about hybrid water heaters, NEEA has launched a consumer facing website at www.smartwaterheat.org. This website provides consumers with important information regarding hybrid water heaters, system placement, and more. Key content from this website has been integrated into a single handout, for easy printing and distribution. To download the handout, click the link below:

[Customer Handout](#)

NEEA has also developed a Best Practices Guide to promote quality hybrid water heater installations by providing installers with best practice techniques. With tips on optimizing performance and increasing customer satisfaction, this guide helps ensure that each installation is successful. To learn more, please download the guide below:

[Suggested Best Practices for Hybrid Water Heater Installations](#)

About this website.
The Northwest Energy Efficiency Alliance (NEEA) has launched this website to foster awareness and collaboration around hybrid water heater technology. NEEA's Hybrid Water Heater initiative focuses on promoting the development of technology that is suited to the needs of northern climates and educating the market on its benefits and use.

About NEEA
NEEA is a non-profit organization working to maximize energy efficiency to meet our future energy needs. NEEA is supported by, and works in collaboration with, the Bonneville Power Administration, Energy Trust of Oregon and more than 100 Northwest utilities on behalf of more than 12 million energy consumers. [View our partners here.](#)

Heat Pump Water Heaters

2012 Activities

- Additional website features
 - Incentive finder
 - Event calendar
- Product and program news
- Increased product training
- Expanded Best Practices Installation Guide
- Support for ETO and other incentive programs
- Product testing
- Qualified products list



Thank You



NORTHWEST ENERGY EFFICIENCY ALLIANCE

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neea.org

GoingDuctless.com | SmartWaterHeat.org

