

# Energy Smart Awareness

## 2012 Northwest Ductless Heat Pump Transition Plan

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## *DHP Transition overview*

- Roles: RTF, NEEA, BPA, and Utility
- Utility Reporting Process
- BPA Qualified Products List
- DHP Form Template
- Quality Control and Quality Assurance
- Role of EE Central
- Program Marketing

# Program Components in Transition

Currently	RTF	NEEA	Fluid Market Strategy under contract w/ BPA
	<ul style="list-style-type: none"> <li>•Equipment Spec</li> <li>•Deemed measure</li> </ul>	<ul style="list-style-type: none"> <li>•Quality Assurance site visits</li> <li>•Contractor Training</li> <li>•Registry of Qualified Contractors</li> <li>•Regional Marketing</li> <li>•DHP Utility and Contractor Website</li> </ul>	<ul style="list-style-type: none"> <li>•Registry of installed units</li> <li>•Quality Control</li> <li>•Forms</li> <li>•Pre-approval of units</li> <li>•Custom Forms</li> <li>•Utility and Contractor Coop Marketing</li> </ul>

After April 1, 2012	RTF	NEEA	BPA and EE Central	Utilities
	<ul style="list-style-type: none"> <li>•Equip-ment Spec</li> <li>•Deemed measure</li> </ul>	<ul style="list-style-type: none"> <li>•Quality Assurance site visits</li> <li>•Contractor Training</li> <li>•Registry of Qualified Contractors</li> <li>•Regional Marketing</li> <li>•DHP Utility and Contractor Website</li> </ul>	<ul style="list-style-type: none"> <li>•Registry of installed units</li> <li>•Quality Control via EE Central</li> <li>•Forms (basic template)</li> <li>•List of Qualifying DHPs</li> </ul>	<ul style="list-style-type: none"> <li>•Pre-approval of units</li> <li>•Custom Forms</li> <li>•Initial QC at time of installation</li> <li>•Entering Data into EE Central</li> </ul>

# Utility Reporting Process

- Contractors and homeowners will submit data (i.e., forms) directly to the Utility
- Utilities will be responsible for entering required data into EE Central
- Homeowner/Contractor forms will become part of the utility's customer record
- EE Central will be used as the DHP Registry of approved installations

# BPA Provided Support

- BPA DHP Qualified Products List
- Generic Form
  - Homeowner and contractor forms – now one form
  - Evaluation data no longer required
  - “AHRI #” is only new data field
  - Utilities can continue to use existing forms
- Both the Products list and the form will be available on [www.BPA.gov/Energy/N/](http://www.BPA.gov/Energy/N/)

# Qualified Products List

## Bonneville Power Administration Ductless Heat Pump Program

### Qualified Products List: Ductless & Mini-Split Heat Pumps

Version 2/22/12

Inverter & 208/230 Volts	AHRI #	Model Status	Manufacturer	Indoor Type	Outdoor Model Number	Indoor Coil Model Number	EER	SEER	Rated Capacity	HSPF	NOTES
Yes	4185166	Active	FUJITSU	Mini-Splits	AOU12RLFW	ASU12RLF	12.50	22.00	16000	11.00	Unit installed in program
Yes	3302799	Active	FUJITSU	Mini-Splits	AOU12RLS	ASU12RLS	14.45	25.00	16000	12.00	Unit installed in program
Yes	4185167	Active	FUJITSU	Mini-Splits	AOU15RLS	ASU15RLS	12.50	21.00	18000	11.00	Unit installed in program
Yes	5069748	Active	FUJITSU	Mini-Splits	AOU15RLS2	ASU15RLS2	12.00	21.50	18000	12.00	Manufacture involved in program
Yes	1040337	Active	FUJITSU	Mini-Splits	AOU18RLQ	ASU18RLQ	10.40	19.00	21600	10.00	Unit installed in program
Yes	883706	Active	FUJITSU	Mini-Splits	AOU18RLX	ABU18RULX	10.90	16.00	21400	8.50	Unit installed in program
Yes	3799056	Active	FUJITSU	Mini-Splits	AOU30RLX	ASU30RLX	10.00	17.50	32000	9.50	Unit installed in program
Yes	883704	Active	FUJITSU	Mini-Splits	AOU42RLX	AUU42RCLX	9.15	15.00	45000	8.50	Manufacture involved in program
Yes	4185165	Active	FUJITSU	Mini-Splits	AOU9RLFW	ASU9RLF	13.80	23.00	12000	11.00	Unit installed in program
Yes	3302798	Active	FUJITSU	Mini-Splits	AOU9RLS	ASU9RLS	17.30	26.00	12000	12.00	Unit installed in program
Yes	3160637	Discontinued	mitsubishi	Mini-Splits	MUZA09NA	MSZA09NA	13.00	17.00	10000	8.20	Unit installed in program
Yes	3160638	Discontinued	mitsubishi	Mini-Splits	MUZA12NA	MSZA12NA	10.30	17.00	13600	8.20	Unit installed in program
Yes	3168239	Discontinued	mitsubishi	Mini-Splits	MUZA15NA	MSZA15NA	8.90	16.00	18000	8.20	Unit installed in program
Yes	3160640	Discontinued	mitsubishi	Mini-Splits	MUZA17NA	MSZA17NA	7.80	16.00	20000	8.20	Unit installed in program
Yes	3160641	Discontinued	mitsubishi	Mini-Splits	MUZ-A24NA	MSZ-A24NA	7.60	16.00	23200	8.20	Unit installed in program
Yes	3059257	Active	mitsubishi	Mini-Splits	MUZD30NA	MSZD30NA	8.00	14.50	32600	8.20	Unit installed in program
Yes	3059258	Active	mitsubishi	Mini-Splits	MUZD36NA	MSZD36NA	7.60	14.50	35200	8.20	Unit installed in program
Yes	3059255	Discontinued	mitsubishi	Mini-Splits	MUZFD09NA	MSZFD09NA	13.80	23.00	10900	10.00	Unit installed in program
Yes	3604581	Discontinued	mitsubishi	Mini-Splits	MUZFD09NA	MSZFE09NA	13.80	23.00	10900	10.00	Unit installed in program
Yes	3059256	Discontinued	mitsubishi	Mini-Splits	MUZFD12NA	MSZFD12NA	12.50	22.00	13600	10.55	Unit installed in program

# Two Page Form

Click Here to Insert Logo or Header

## Ductless Heat Pump Installation Form

Homeowner name:	Utility name:
Site address:	Site City / State / ZIP code:
What type of primary electric resistance heat does the house have? <input type="checkbox"/> Zonal <sup>1</sup> <input type="checkbox"/> Electric Hydronic <input type="checkbox"/> Furnace <sup>2</sup>	
Which of the following describes the home? <input type="checkbox"/> Detached single-family house, duplex, triplex, or four-plex <input type="checkbox"/> Multifamily (5 units or more is a single structure)? <input type="checkbox"/> Manufactured Home <sup>3</sup>	
<sup>1</sup> Zonal heating includes electric, non-ducted ceiling cable, wall, baseboard and an electric hot/water heater attached to a zoned hydronic floor heating system. Homes with an electric forced air furnace, multifamily residences, or manufactured homes currently do not qualify.	
The undersigned utility customer requests and authorizes the specified utility to release billing and usage information for the account listed below to the Bonneville Power Administration (BPA) or its agent. With this authorization, the BPA can request billing information for up to two years pre-installation and two years post-installation. The utility customer also hereby releases the utility company from any and all liability arising from or connected with providing this information. The homeowner also agrees to the terms and conditions listed on the back of this form.	
Account Holder Name:	Electric utility account number:

### Homeowner Signature

By signing, the account holder certifies that he/she is in compliance with  Account Holder signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Installation Information

Contractor Company Name:		Date of Installation:	
Total installed cost, including: equipment, labor, electrical, tax, permit and other (prior to rebate): \$			
Total number of outdoor units installed:		Total number of indoor units installed:	
Outdoor unit manufacturer:	Outdoor unit model number:	AHRI Certificate #:	
Associated indoor units	Indoor unit model number(s)	Associated indoor units	Indoor unit model number(s)
INDOOR UNIT 1 (in main living area)		Unit 3 (if installed)	
Unit 2 (if installed)		Unit 4 (if installed)	

### Contractor Signature Release

By signing below, the contractor certifies that this invoice form and all accompanying documents are complete and accurate. The signature certifies that the contractor is licensed, bonded, insured, has been trained by the manufacturer of the installed product and has received project contractor orientation. By signing this, the contractor has read and understood the terms and conditions printed on the back of this form and/or project information on the Northwest Ductless Heat Pump Project website (www.goingductless.com).

Who is the best person to contact? \_\_\_\_\_ Email contact: \_\_\_\_\_

Installer signature: \_\_\_\_\_ Installer name: \_\_\_\_\_ Date: \_\_\_\_\_

Phone: ( ) -  Work  Cell Alternative phone: ( ) -  Work  Cell

Yes, I have included a copy of the job sales invoice for proof of installation.  
 Yes, I have installed refrigerant line protection on entire length of exterior, insulated refrigerant lines. (For details, see page 2.)  
 Yes, I have installed the system in accordance with Manufacturer specifications, including adherence to proper refrigerant charging.

Please return this form to:  
 Company name  
 Address line 1  
 Address line 2  
 Zip code  
 Email  
 Fax

### Terms and Conditions

**OFFICIAL FORM:** This form and any required additional documentation, including Installation Invoice, must be filed out completely, truthfully and accurately. Project details, including Incentives, are subject to change without prior notice.

**HOMEOWNER ELIGIBILITY:** To be eligible for incentive payment, the home must have permanently installed zonal electric resistance heat as the primary heating system. A qualifying home cannot: (i) be new construction, (ii) have a fossil fuel central forced air or fossil fuel hydronic heating system, nor (iii) have a ducted heat pump system.

**SYSTEM ELIGIBILITY:** To be eligible for incentive payment, ductless heat pumps installed must be: a split system heat pump employing an inverter-driven, variable speed compressor, a variable speed outdoor fan, and a multi-speed or variable speed indoor blower. Additionally, indoor units using any type of field installed duct system are NOT eligible.

**CONTRACTOR ELIGIBILITY:** Contractors must be licensed, bonded and insured, have successfully completed manufacturer sponsored training for equipment being installed and the Project orientation. Upon successful completion of the Project orientation, your company is eligible to participate in the Project. Continued participation in the Project is at the complete discretion of the Project manager, and you may be removed from the Project at will. Contractors must be currently eligible participants in the Project in order for utilities to pay incentives.

**CONTRACTOR REMOVAL:** Non-compliance with Project requirements and/or Quality Assurance Inspections resulting in deviations may trigger a performance review of the installation contractor. This review will be conducted with the Project QA team, utilities, and other Project stakeholders. The performance review may result in suspension or permanent removal from participation in the Project. Findings of the performance review will be communicated, in writing, to the installation contractor and participating utility along with terms of suspension or removal. Suspension or removal is at the sole discretion of the Project, and is not subject to negotiation or modification.

**VERIFICATION AND INSPECTION:** Participating homes are subject to onsite inspections in order to verify that the system meets Project standards and that the home meets eligibility guidelines. Systems will be randomly chosen for onsite inspection, based on the number of completed installations by the contractor. No warranty is implied by this inspection.

**INCENTIVE PAYMENT:** The Project will approve utility incentive payment upon receipt of all complete and correct documentation. The Project will provide approved incentive payment information to the appropriate utility for payment. One incentive per residence is available regardless of the number of units installed in the home.

**TAX LIABILITY:** Neither the utility, BPA, nor the contractor is responsible for any tax liability, which may be imposed on the Participant as a result of payment of any incentives or as a result of obtaining financing.

**ENDORSEMENT:** The Project does not endorse any particular manufacturer, contractor, or product in promoting Ductless Heat Pumps. The fact that the names of particular manufacturers, contractors, or products may appear on Project materials does not constitute an endorsement. Manufacturers, contractors, or products not mentioned are not implied to be unsuitable or defective in any way.

**SAFETY AND BUILDING CODES:** The Participant agrees to pursue compliance with federal, state, and local building and environmental codes for the installation of this product. The contractor certifies products have been installed consistent with manufacturer instructions.

**PROPERTY RIGHTS:** The Participant must have proper authority to install the ductless heat pump system on the designated property, or has obtained any necessary consent from the landlord.

**ACCESS AND EVALUATION:** The Project and its representatives may request access to the property on which the ductless heat pump system was installed, to review and evaluate the system during and after Project completion. The Participant for survey participation and project feedback.

**REFRIGERANT LINE PROTECTION:** At the time of installation, contractor must protect all exterior, insulated refrigerant lines. Protection is either UV resistant tape wrapped around insulated refrigerant lines or rigid line hides installed over insulated refrigerant lines.

# Home Owner Information

## Ductless Heat Pump Installation Form

Homeowner name:		Utility Name:	
Site address:		Site City / State / ZIP code:	
What type of primary electric resistance heat does the house have? <input type="checkbox"/> Zonal <sup>1</sup> <input type="checkbox"/> Electric Hydronic <input type="checkbox"/> Furnace <sup>2</sup>			
Which of the following describes the home? <input type="checkbox"/>		( Detached single-family house, duplex, triplex, or four-plex <input type="checkbox"/> Multifamily (5 units or more is a single structure) <sup>2</sup> <input type="checkbox"/> Manufactured Home <sup>2</sup>	
<sup>1</sup> Zonal heating includes electric, non-ducted: ceiling cable, wall, baseboard and an electric boiler/water heater attached to a zoned hydronic floor heating system. <sup>2</sup> Homes with an electric forced air furnace, multifamily residences, or manufactured homes currently do not qualify.			
<i>The undersigned utility customer requests and authorizes the specified utility to release billing and usage information for the account listed below to the Bonneville Power Administration (BPA) or it's agent. With this authorization, the BPA can request billing information for up to two years pre-installation and two years post-installation. The utility customer also hereby releases the utility company from any and all liability arising from or connected with providing this information. The homeowner also agrees to the terms and conditions listed on the back of this form.</i>			
Account Holder Name:		Electric utility account number:	

### Homeowner Signature

By signing, the account holder certifies that he/she is in compliance with		Account Holder signature:	Date:
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# DHP Installation Information

## Installation Information

Contractor Company Name:		Date of Installation:	
Total installed cost, including: equipment, labor, electrical, tax, permit and other ( <i>prior to rebate</i> ): \$			
Total number of outdoor units installed:		Total number of indoor units installed:	
Outdoor unit manufacturer:	Outdoor unit model number:	AHRI Certificate #:	
Associated Indoor units	Indoor unit model number(s)	Associated Indoor units	Indoor unit model number(s)
Indoor Unit 1 (in main living area)		Unit 3 (if installed)	
Unit 2 (if installed)		Unit 4 (if installed)	

# Quality Control

- Quality Control (QC) will be automated in EE Central as much as possible
- BPA Staff will review claimed units on a random basis
- Utilities will be responsible to determine if unit is on AHRI list of qualifying units and that it is installed in a qualifying application (i.e., single family home with zonal electric heat)

# Quality Assurance Process

- Quality Assurance (QA) will continue to be provided by NEEA, with the intent of pulling a 1.5 to 2 % sample
- Sample comprised of:
  - 1% QA sample to be pulled from EE Central
  - QA inspection of 1 job, in the 1<sup>st</sup> 5 installations, for new contractors
  - QA inspections requested by a utility to deal with a problem contractor, etc.

# Webpage ([www.goingductless.com](http://www.goingductless.com))

- NEEA will continue to maintain the consumer/utility/contractor website w/:
  - Contractor registry
  - Master Installers Program
  - Participating utilities list
  - Utility forms
  - Existing registry for units installed prior to April 1, 2012, and
  - Consumer information

# Marketing

- NEEA will continue to support Regional Marketing efforts
- Utilities may contract directly with Fluid Market Strategies or any implementer for :
  - Marketing assistance
  - Data entry to Bulk Upload File
  - Initial QC/qualifying of units and applications
  - Technical Support beyond that provided by BPA

# Fluid Market Strategies

- Fluid would like to hear from utilities, ASAP, regarding:
  - What your utility plans in terms of an approval processes and what forms you will be using
- Fluid is willing to follow-up, with contractors, to share this new information (i.e., utility forms, contact information, submittal process, etc.) with contractors installing DHPs in **YOUR** service territories.

# Contact Information

## **BPA DHP Program Manager**

Mark E. Johnson

Bonneville Power Administration

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