

NEW TRADE ALLY ORIENTATION

INSULATION 2024

PUD 

AGENDA

- Introductions
- Benefits of joining the network
- Expectations
 - Contractor
 - PUD
- Conservation at the PUD
 - Why Energy Efficiency
 - Programs
 - Rebates and Application Process
- Next Steps



BENEFITS OF BECOMING A PUD REGISTERED TRADE ALLY

BENEFITS

- Competitive Advantage
 - **Only** PUD Registered Contractors can offer Single Family program rebates
- Online Contractor Directory
 - Customer traffic
- Credibility
 - Ability to leverage PUD Logo
- PUD Program Outreach



ONLINE CONTRACTOR DIRECTORY

- Directory on PUD's website where customers can search contractors by
 - Contractor Type (Insulation, Windows, Heating)
 - Performance (Completed Jobs)
 - Years in Network
 - **List is randomly sorted, so contractors at the top of list vary each time it is opened.**

*Keep contact info updated

*Must meet program requirements to stay included



ONLINE DIRECTORY

Clean Crawls

PUD registered trade ally since 2008
139 jobs in the last year

*Specialties: Duct Sealing, Insulation,
Single Family*

☎ 425-357-7485

🌐 cleancrawls.com

✉ info@cleancrawl.com

📍 3707 124th ST NE Bldg A#1
Marysville, WA, 98271

HOME COMFORT ALLIANCE LLC DBA MM COMFORT SYSTEMS

PUD registered trade ally since 2009
6 jobs in the last year

*Specialties: Air Source, Ductless Heat
Pumps*

☎ 425-881-7920

🌐 www.mmcomfortsystems.com

✉ info@mmcomfortsystems.com

📍 9680 153rd Ave NE
Redmond, WA, 98052

Arrow Insulation & Electric

PUD registered trade ally since 2020
35 jobs in the last year

*Specialties: Duct Sealing, Ductless Heat
Pumps, Financing, Indoor Air Quality,
Insulation, Insulation Removal &
Replacement, Multifamily, Rodent
Exclusion, Vapor Barrier Removal &
Replacement*

☎ 877-658-9276

🌐 goarrowinc.com

✉ Service@GoArrowInc.com

📍 PO Box 1233
Mount Vernon, WA, 98273

Crawl Pros

PUD registered trade ally since 2017
2 jobs in the last year

*Specialties: Duct Sealing, Insulation,
Single Family*

☎ 253-507-7682

🌐 crawlpros.com

✉ cscp@crawlpros.com

📍 109 S 25th Street
Tacoma, WA, 98402

Attic Projects Seattle

PUD registered trade ally since 2023

☎ 425-516-1055

🌐 www.atticprojectsseattle.com

✉ office@atticprojects-sea-n.com

📍 2111 1/2 38th St, Everett, WA
98201

Classic Insulation & Pest Control

PUD registered trade ally since 2008
0 jobs in the last year

Specialties: Insulation, Single Family

☎ 877-844-2847, 425-259-0008,
360-629-3955

🌐 www.classicpestpro.com

✉ info@classicinsulation.com

📍 1404 Riverside Drive Suite C
Mt. Vernon, WA, 98273



REGISTERED
TRADE ALLY

CREDIBILITY & RECOGNIZABILITY

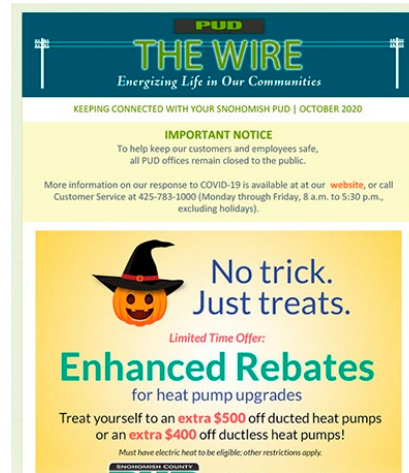
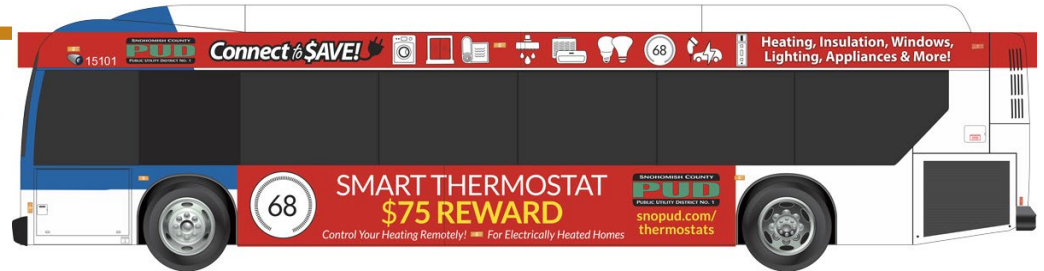
- Promote
 - Authorized participation in PUD energy efficiency programs
 - Ability to offer rebates
- Use **online** & in **print** materials
 - All use must be **pre-approved by PUD**
 - See **usage guidelines** on www.snopud.com/TAResources



**REGISTERED
TRADE ALLY**

PROGRAM OUTREACH

- Promotional Materials
- Newsletters
- Television Commercials
- Print & Digital Ads
- Community Fairs/Events
- Transit Ads
- Social Media



EXPECTATIONS OF CONTRACTORS

EXPECTATIONS: PRE-INSTALLATION

- Solicit New Business
 - Perform outreach and promote PUD initiatives
- Provide Energy Efficiency Expertise
 - What solution is best for customer?
 - Provide estimate and discuss costs
- **Qualify & Guide Customers**
 - Know program benefits and eligibility requirements
 - Navigate program processes and paperwork for customer



EXPECTATIONS: PERFORMANCE

- Commitment to Quality and Partnership
- Install to “Best Practices”
- Customer Satisfaction
 - Resolve any complaints



EXPECTATIONS: PERFORMANCE

- Install work to meet PUD program specifications
 - Determined largely by BPA requirements
- Volume
 - Minimum 2 jobs/year
- Timeliness & Paperwork
 - Complete “Call Backs” within 30 days
 - Keep insurance and licenses current

B O N N E V I L L E
P O W E R A D M I N I S T R A T I O N



EXPECTATIONS OF PUD

EXPECTATIONS: PUD

- Monitor contractor performance
- Provide timely feedback
- Support contractors with a goal of shared success
- Partner with contractor to make sure program is a good fit
- Promptly notify contractors of program updates
- Market conservation programs
- Foster open communication



ENERGY ADVISOR LINE

(425) 229-5598



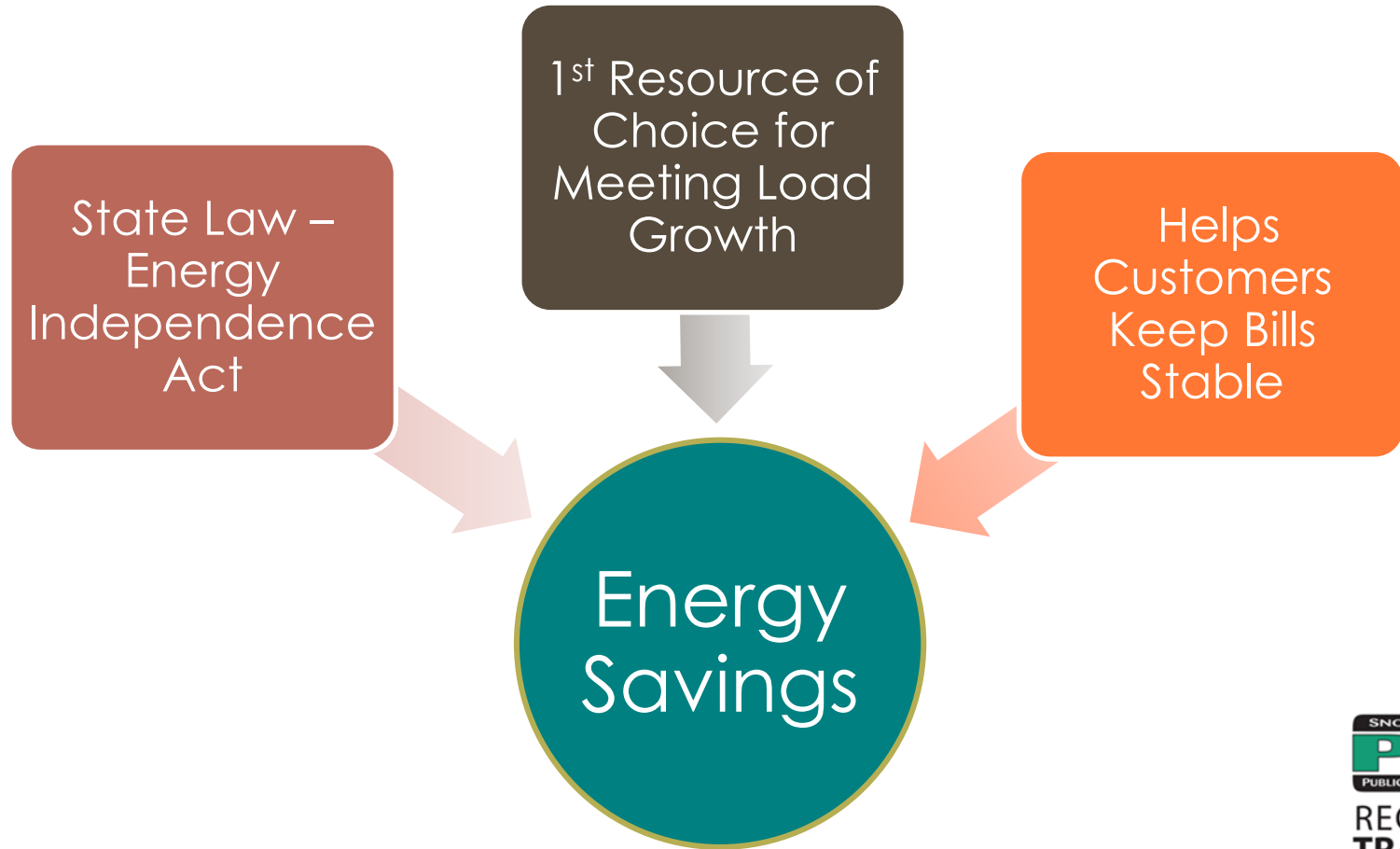
We welcome all questions!
Eligibility...Equipment...Specifications...Sizing
Calculator

CALL BEFORE YOU INSTALL



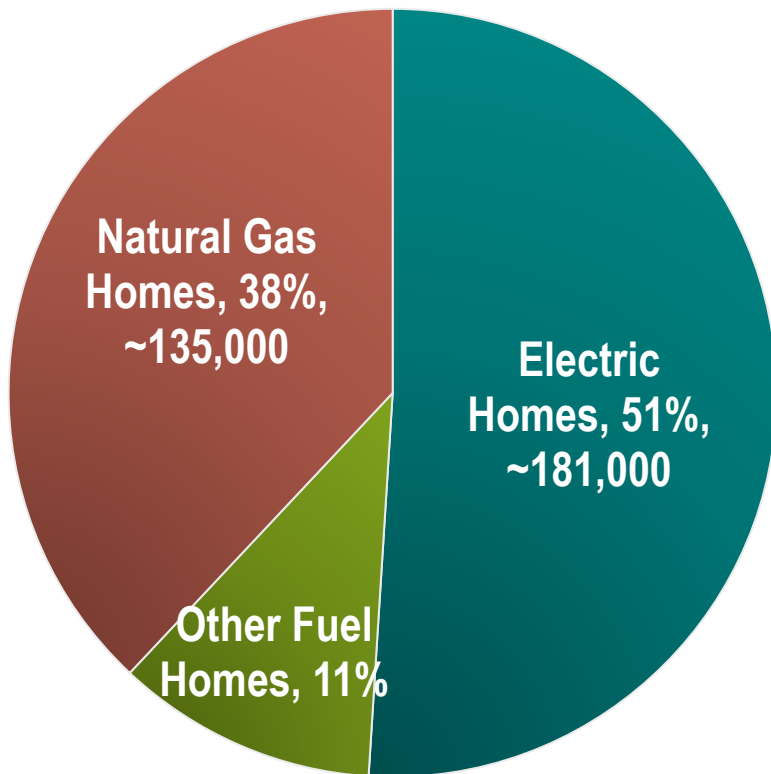
CONSERVATION AT THE PUD

WHY PUD INVESTS IN ENERGY EFFICIENCY

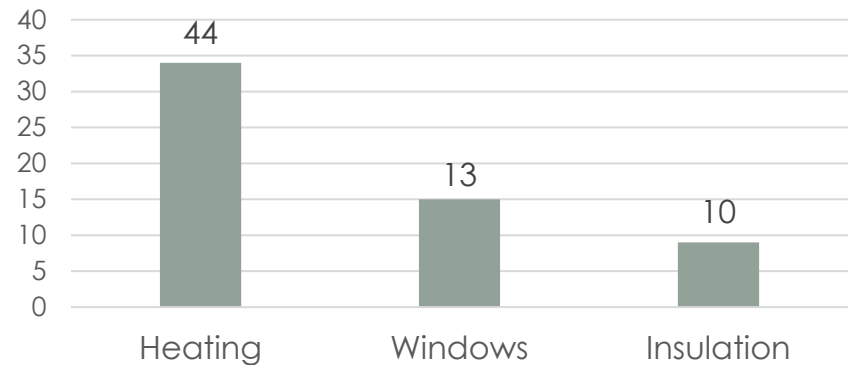


MARKET POTENTIAL FOR ENERGY CONSERVATION

% Heat Source Type in SnoPUD Service Territory

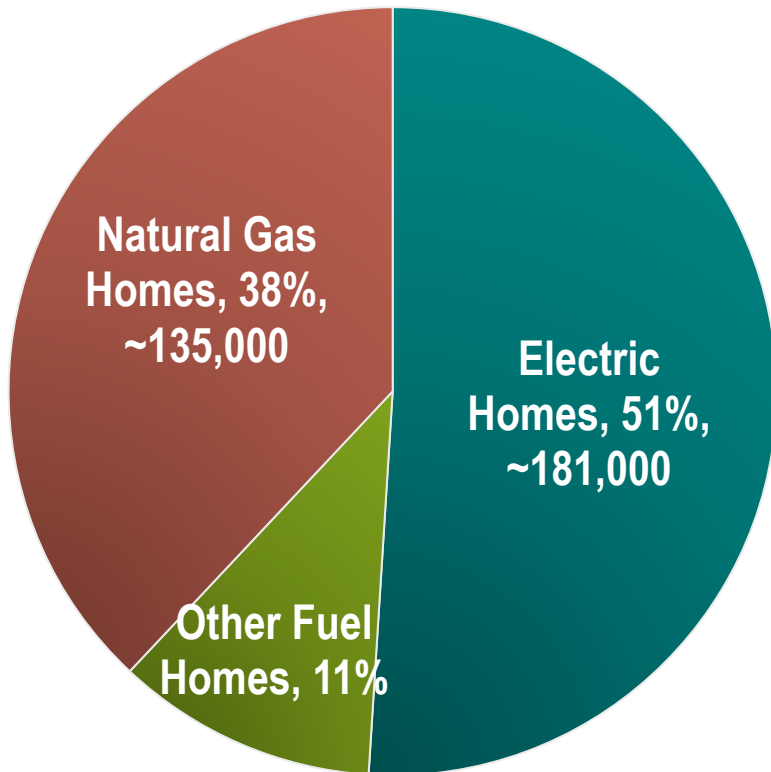


2022 Contractors by Measure

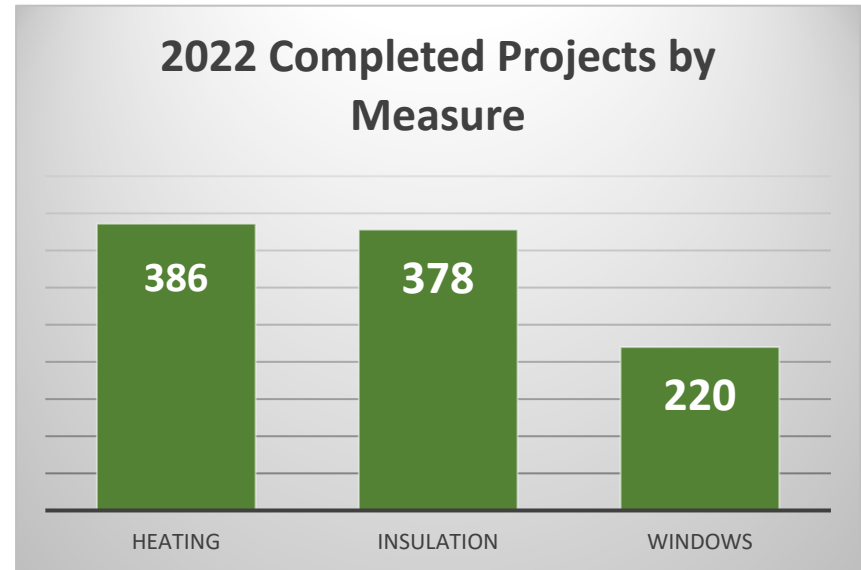


MARKET POTENTIAL FOR ENERGY CONSERVATION

% Heat Source Type in SnoPUD Service Territory



2022 Completed Projects by Measure



PROGRAMS / MEASURES

Single Family (Existing Homes)

- Weatherization and Heating Measures
- SF Rebate Eligibility
- Rebate Amounts
- Rebate Process

Retail Instant Rebates

- Appliances, **electric hybrid water heaters**, smart thermostats



WEATHERIZATION & HEATING MEASURES

Heat Pumps

- Air Source



Insulation

- Attic
- Wall
- Floor
- Duct



Windows



REBATE PROCESS

- Contractor determines customer eligibility
- No waiting for PUD pre-approval
 - Customer and contractor determine installation schedule
- Contractor ensures installation meets PUD program specifications
 - All jobs subject to verification
- Work is completed before applying for rebate

Unsure? Call before you install!

(425) 229-5598



INSTANT REBATE REQUIREMENTS

- **Customer invoice/receipt must show “PUD Instant Rebate”**
- Contractor assumes risk for non-qualifying installations submitted
- Option for Customer credit at signature line

Unsure? Call before you install

(425) 229-5598



PROJECT DEVELOPMENT INCENTIVE

- In 2022 we added a Project Development Incentive or PDI for our contractors.
- The PDI is payable to the contractor to offset the administrative costs of participating in our program(s).
- **Eligibility to receive the PDI:**
 - **Application must be submitted in the most current workbook (2022).**
 - **Rebate must be paid to the contractor and taken off the customer invoice.**
 - **Rebate application must be submitted within the 90-day window from completion.**
 - **Call-backs must be completed with-in 30-days.**
 - **PDI may not exceed Rebate.**
 - **Rebate must meet all program requirements and be approved for payment.**
 - **PDI amounts:**
 - Heating \$175.00/rebate
 - Weatherization \$125.00/rebate



NEXT STEPS

DECIDE IF PUD PROGRAM IS A FIT

Does the PUD Registered Trade Ally Network fit your company's business?

- Job Volume Requirements (2/yr)
- Single Family Existing Homes
- PUD Program Specifications
- PUD Service Territory
- Customer Qualification & PUD Instant Rebate
- Management of Timelines and Paperwork



IF “YES”, THEN.....

- Review & Sign Trade Ally Agreement & Rider(s)
- Provide Liability & Auto Insurance Certificates
(with endorsements & additional insured)
- Provide Contractor & Master Business License
- Provide W-9
- Attend PUD Installer & Sales training for relevant measures
 - (included in this training)

Provide all documentation within 30 days of this presentation.



INSULATION & DUCT SEALING INSTALLER & SALES TRAINING

WINTER 2024

PUD 

AGENDA

- Introduction
- Single Family program
 - Process & paperwork
 - Specifications
 - Quality control
- Meeting program requirements
- PUD Resources



SINGLE FAMILY PROGRAM



SNOHOMISH COUNTY
PUD
PUBLIC UTILITY DISTRICT NO. 1
REGISTERED
TRADE ALLY

ELIGIBILITY: SINGLE FAMILY

- **“Single Family” definition** includes
 - Residences of up to 4 attached dwellings, including manufactured and modular homes, ADUs and townhouses. Townhouses share walls but do not vertically overlap, and are not subject to the # of units cap.
- **Permanently installed electric heat as primary heat source**
 - Wood/propane/gas stoves and inserts not applicable
- **An active PUD account**
 - Snohomish County or Camano Island
- Only **living areas of the home**
- Not a remodel program
- Installation by **PUD Registered Trade Ally** required





Gas vent

Gas meter

Outdoor unit

Tankless gas water heater

REBATES

| Eligible Measure | Incentive |
|---------------------------------------------------|---------------------------------------------------------------------|
| Attic, Floor, and Wall Insulation | \$1 per SQ FT – Pre '76, R-0 \$0.50 per SQ FT – other qualifying |
| Duct Sealing & Insulation | \$5.00 Per Lineal Foot up to \$450 |
| Duct Sealing & Insulation - Manufactured homes | \$200 Single wide MH \$400 Double wide MH |

All programs & rebates
subject to change. Check
www.snopud.com for
current offerings.



INSULATION MINIMUMS

| Area | Existing Insulation | Post insulation <i>Fill cavity or Maximum Achievable</i> |
|----------------------------|---------------------|-----------------------------------------------------------------|
| Attic | < R-11 | R-19 or R-49 |
| | R-11 to R-19 | R-49 |
| Floor | <R-11 | R-19,25,30 |
| | R-11 to R-19 | R-30 |
| Manufactured Home – Floor* | < R-11 | R-11 or R-22 |
| | R-11 | R-22 |
| Wall | R-0 closed cavity | Min. R-11 |
| | R-0 open cavity | Min. R-13 |
| Ducts | Strip and Seal | R-8 |

* Note: Manufactured Homes not eligible for Wall or Attic insulation rebates.



PROCESS & PAPERWORK:

PROCESS : STEP BY STEP

1. **Contractor** meets with **customer**, determines eligibility, provides estimate, wins the job.
2. **Contractor & customer** agree to price, payment terms, and installation schedule.
3. **Contractor** completes installation to PUD specifications & provides PUD Instant Rebate on customer invoice.
4. **Contractor & customer** complete the PUD Rebate Application and submit to **PUD** with supporting documentation.
5. **PUD** reviews application, contacts **customer** if inspection required, and pays **contractor** when job passes.



REBATE APPLICATION

- Complete ALL relevant sections
- Include ALL supporting documents
- Submit within 90 days of installation
- Provide PUD Instant Rebate, show on invoice
- Use the current version:

www.snopud.com/TAResources

Heating Rebates
Rebates are available to PUD customers who replace their primary electric heating system with an efficient electric heat pump. Customers with existing gas furnace or boiler are not eligible. For more information on this program: snopud.com.

Weatherization Rebates
Rebates are available for the addition of new insulation, windows, and duct sealing that meet or exceed PUD program requirements. For more information on this program: snopud.com/weatherization

INSULATION

EXISTING SINGLE FAMILY HOMES REBATE APPLICATION

CUSTOMER INFORMATION
HOMEOWNER NAME (EMAIL ADDRESS)
DAYTIME PHONE NUMBER (WITH AREA CODE) PREFERRED CONTACT METHOD () HOME () WORK () CELL () PHONE () EMAIL ()

HOME INFORMATION (ALL FIELDS ARE REQUIRED)
INSTALLATION ADDRESS (CITY / STATE)
MAILING ADDRESS (SAME AS ADDRESS ABOVE) (CITY / STATE)
REBATE IS FOR () PRIMARY RESIDENCE () RENTAL TYPE OF HOME () SINGLE FAMILY () MULTIFAMILY ()
SQUFT # OF DWELLINGS YEAR BUILT ELECTRIC HEAT SOURCE TYPE () Ductless Heat Pump () Zonal (Baseboard, wall/mnt) () Furnace () Heat Pump ()
CONTACT PERSON (if not homeowner) () CONTRACTOR ()

PUD REGISTERED CONTRACTOR INFORMATION
CONTRACTOR COMPANY
DAYTIME PHONE NUMBER (WITH AREA CODE) (EMAIL ADDRESS)

SIGNATURE
I, the homeowner, request one or more rebates for measure(s) installed in the home by the licensed installer(s) and other required documentation. I understand and agree to the Additional Conditions, and the conditions for participation in Residential Energy Efficiency Program(s) of the Public Utility District No. 1 of Snohomish County ("PUD") will make the final determination. Program(s) are subject to change without notice and (iii) rebate applications may be subject to audit. I agree to receive my rebate via (check one):
 Instant Rebate (provided on the PUD Registered Contractor's invoice) and rebate(s) due to me. OR
 Credit to my PUD utility account, which may take up to six (6) weeks to process.
SIGNATURE Homeowner Signature: _____
 Electronic Signature: By checking the signature box, inserting my name, and printing my name, I certify that I understand and agree to the above terms.

Weatherization Rebates
Heating Rebates
TOTAL REBATE AMOUNT

Please submit this completed, signed application to:
Residential Energy Services (E2), Snohomish County PUD

How to Apply
1. Complete the following application. Your PUD Registered Contractor will enter your application in complete. Incomplete applications cannot be processed.
2. Review this checklist before submitting. If you have any questions, please call the PUD Energy Hotline at 425-783-1700.
3. Email or mail your completed application with all supporting documents, including a copy of the invoice, to the PUD Energy Hotline at 425-783-1700.
4. Your PUD Registered Contractor will deduct the amount of your PUD rebate from your invoice before this application is submitted. The Contractor will then collect payment from Snohomish PUD on your behalf after this application has been processed and the work has passed any required inspection.

Need Help?
Call the Energy Hotline at 425-783-1700, Monday to Friday, 8 AM to 5 PM (toll-free in Western Washington and outside the local Everett calling area 1-877-783-1000).

SUPPORTING DOCUMENTS

| Documents Required | Measure Type |
|----------------------------------------------|-------------------------------------|
| Invoice showing PUD Instant Rebate deducted | ALL |
| Installation verification photos | |
| NFRC Stickers or Manufacturer Packing Slip | WINDOWS |
| PUD Insulation Certificate | INSULATION/ DUCT SEALING |
| PUD Knob & Tube Report (if applicable) | |
| PUD Heat Pump Start-up Checklist (if applic) | HEAT PUMPS |
| PUD Sizing Calculator (if applic) | |
| Duct Testing Affidavit (if applic) | |



VERIFICATION PHOTOS

Insulation

- Insulated attic and floor areas – Pre & Post
- Ventilation added (preferred)
- Outside wood plugs (wall insulation)

Please ensure all photos are legible

COMPLETING THE APPLICATION

- Include ALL home information
 - Square footage, Year Built, Home Type, Electric Heat Source etc.
- Check “Instant Rebate” OR “Customer Credit”
 - Discuss with customer, align with invoice
- Have customer sign OR insert name and check the box
- Complete ALL relevant rebate fields
- Use the checklist (“How to Apply”) and application notes to ensure all necessary documents are included

Incomplete applications will not be processed



ITEMIZED INVOICE

- Must match the selection shown on the Rebate Application (signature section)
- Include details outlined under “POP Requirement” on Application
- For Instant Rebates: must include **total installed cost**, “**PUD Instant Rebate**” amount (as deduction from the total), and **customer owed balance** (or customer balance paid).
 - Include a summary such as the following if necessary.

| | |
|---------------------------|-----------------|
| Total installed cost | \$2,000 |
| <u>PUD Instant Rebate</u> | <u>(\$400)</u> |
| Customer owed/paid amount | \$1,600 |



WHO GETS THE REBATE?

✓ INSTANT REBATE (99%)

- Payment sent to **contractor** after job passes inspection
- Invoice shows “PUD Instant Rebate” deducted from customer’s total cost

✓ CUSTOMER CREDIT

- Credit to customers PUD account after job passes inspection
- Invoice shows that customer paid for job in full – no PUD Rebate shown



SPECIFICATIONS

ATTENTION TO DETAIL



ATTIC INSULATION

R0/R19 to R49



SNOHOMISH COUNTY
PUD
PUBLIC UTILITY DISTRICT NO. 1
REGISTERED
TRADE ALLY

EXISTING BATT IN ATTIC

1/3 Rule



SNOHOMISH COUNTY
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PUBLIC UTILITY DISTRICT NO. 1
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TRADE ALLY

ATTIC INSULATION

Recessed Light Rules

{IC & NON IC}

(101.250, .260)



SNOHOMISH COUNTY
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ATTIC INSULATION

Sealing Penetrations (101.253)



SNOHOMISH COUNTY
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ATTIC INSULATION

Masonry
Chimneys
(101.277)



Metal Flues
(101.275)



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ATTIC INSULATION

- Sealing Ceiling Ducts (101.280)
- Water Pipe Insulation (101.312)



SNOHOMISH COUNTY
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TRADE ALLY

ATTIC INSULATION

Knob & Tube Wiring (101.285)



KNOB AND TUBE SURVEY REPORT

| CUSTOMER INFORMATION | |
|----------------------|-------------------------|
| HOMEOWNER NAME | PHONE (with area code) |
| SERVICE ADDRESS | CITY / STATE / ZIP CODE |

1. CONDITION OF CONDUCTOR(S) ADEQUATE? Yes No If No, explain required corrections:

2. ANY IMPROPER CONNECTIONS? Yes No If Yes, explain required corrections:

3. CIRCUITS PRESENTLY OVERLOADED? Yes No If Yes, explain required corrections:

All circuits in areas to be insulated must be protected with the appropriate size breakers or S-type fuses. Identify below the panel location of circuits in the area(s) to be weatherized, the method used, the amperage, and wire size:

| Circuit # | Breaker or S-Type fuse? | Amps. | Wire Gauge | Circuit # | Breaker or S-Type fuse? | Amps. | Wire Gauge |
|-----------|-------------------------|-------|------------|-----------|-------------------------|-------|------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Areas Approved For Insulating (Initials ONLY. Check marks are unacceptable)

WALLS CEILINGS FLOORS ALL AREAS

LICENSED ELECTRICAL CONTRACTING FIRM: _____

FIRM'S ADDRESS: _____ PHONE: _____

LICENSE #: _____ BONDING CO.: _____

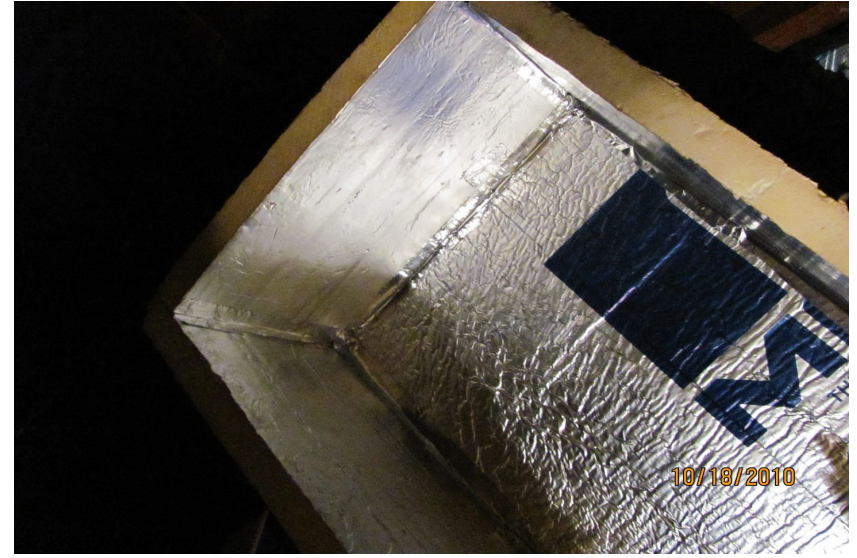
I personally surveyed the above home's wiring on _____ (date) and certify that all circuits are sized in accordance with the 60° column of Table 310.15(B)(16) of the current NEC.

Name of Journeyman Electrician (Signature of Journeyman Electrician)

If repairs, alterations or extensions of or to the electrical system are made, they shall be inspected by an electrical inspector as defined in RCW 19.28.070 (a copy of the electrical inspector's report shall be submitted with this Knob and Tube Survey Report).

ATTIC INSULATION

Attic Access
(101.295, .300, .305, .310)



LADDER ACCESS



ATTIC INSULATION

- Exhaust Fans {Bath}
(101.271, .272, .315)
- Kitchen Exhaust
(101.320)
- Dryer Exhaust **(101.325)**



TYPES OF VENTS : ROOF/GABLE

Venting {1/300, 1/150}
(101.335, .340)



GABLE VENTS

Old and/or damaged vent would need to be re-screened



TYPES OF VENTING

Round



Rectangle



GABLE VENTS

Restricted Air Flow



SOFFIT VENTS



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SOFFIT VENTS



SNOHOMISH COUNTY
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PERFORATED SOFFIT VENT



SNOHOMISH COUNTY
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REGISTERED
TRADE ALLY

EAVE VENTS



SNOHOMISH COUNTY
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TRADE ALLY

BLOCKED EAVE VENTS



VENTING CALCULATIONS



Venting Calculations

To determine the net free ventilating area of a vent, divide the gross ventilating (do not include metal frame edges) area by the Area Factor below.

| <u>Covering</u> | <u>Area Factor</u> |
|-----------------------|--------------------|
| ¼ inch hardware cloth | 1.0 |
| w/ rain louvers | 2.0 |
| #8 mesh screen | 1.25 |
| w/ rain louvers | 2.25 |
| #16 mesh screen | 2.0 |
| w/ rain louvers | 3.0 |
| Rain louvers only | 2.0 |

| <u>Bird blocks per hole factor</u> | | | |
|------------------------------------|-------|-------|------------|
| | ¼" | 1/8" | 1/16" mesh |
| 1" | .0055 | .0044 | .0027 |
| 1.5" | .0123 | .0098 | .0061 |
| 2" | .0218 | .0174 | .0109 |
| 2.5" | .0341 | .0273 | .0170 |
| 3" | .0491 | .0393 | .0245 |

| <u>Continuous Soffit Vent (per lineal foot)</u> | | | |
|-------------------------------------------------|------|------|------------|
| | 1/4" | 1/8" | 1/16" mesh |
| 2" | .17 | .13 | .08 |
| 3" | .25 | .20 | .13 |
| 4" | .33 | .27 | .17 |

| <u>Bird blocks per notch factor</u> | | | |
|-------------------------------------|-------|-------|------------|
| | 1/4" | 1/8" | 1/16" mesh |
| 1" | .0035 | .0029 | .0018 |
| 1.5" | .0078 | .0063 | .0039 |
| 2" | .0139 | .0111 | .0069 |
| 2.5" | .0217 | .0174 | .0109 |

Continuous Ridge Vent 8 lineal feet = 1 square foot

Manufactured Eave Vents

| | 1/4" | 1/8" | 1/16" |
|-------------------|------|------|-------|
| 24" oc 21.5"x2.5" | .37 | .30 | .19 |
| 21.5"x4.5" | .67 | .54 | .34 |
| 16" oc 13.5"x2.5" | .23 | .19 | .12 |
| 13.5"x4.5" | .42 | .34 | .21 |

Gable Vents with louvers

| | 1/4" | 1/8" | 1/16" | Plastic w/slits |
|---------|------|------|-------|-----------------|
| 8"x8" | .22 | .20 | .15 | .10 |
| 8"x12" | .33 | .30 | .22 | .15 |
| 8"x16" | .44 | .40 | .30 | .20 |
| 12"x12" | .50 | .44 | .33 | .23 |
| 12"x18" | .75 | .67 | .50 | .34 |
| 14"x24" | 1.17 | 1.04 | .78 | .53 |

| <u>Roof Jacks (8mesh)</u> | <u>8 mesh circular</u> |
|---------------------------|------------------------|
| AF-41 .22 | 6" - .16 8.5" - .32 |
| AF-50 .28 | 6.5" - .18 9" - .35 |
| AF-61 .34 | 7" - .21 9.5" - .39 |
| R-92 .51 | 7.5" - .25 10" - .44 |
| R-144 .80 | 8" - .28 10.5" - .48 |

Full Screen Crawlspace Vents

| | |
|-----------------------------|-----|
| 16"x8" (14.5"x5.5" opening) | .65 |
| 16"x6" (14.5"x4.5" opening) | .45 |

Plastic Pre-made Floor Vents

| | |
|------------------------------------|-----|
| 16"x6" (2 squares 6.75"x4.5" each) | .42 |
|------------------------------------|-----|

Soffit or Floor Vents Louvered

| | |
|---------------------------------|-----|
| 16"x8" (2 squares) 1/16" mesh | .22 |
| 16"x8" (2 squares) 1/8" mesh | .30 |
| 16"x8" (2 squares) 1/4" mesh | .34 |
| 16"x8" (2 squares) louvers only | .34 |
| 16"x6" (2 squares) 1/16" mesh | .17 |
| 16"x6" (2 squares) 1/8" mesh | .22 |
| 16"x6" (2 squares) 1/4" mesh | .25 |
| 16"x6" (2 squares) louvers only | .25 |
| 16"x4" (2 squares) 1/16" mesh | .10 |
| 16"x4" (2 squares) 1/8" mesh | .13 |
| 16"x4" (2 squares) 1/4" mesh | .15 |
| 16"x4" (2 squares) louvers only | .15 |

All new attic vents shall have 1/8" mesh screening. Soffit vents can also have louvers. Any existing attic vents that need to be repaired shall use 1/8" mesh screening.

Any new floor venting shall be 1/4" mesh Screening as shall any existing vents that need to be repaired or replaced.

ATTIC INSULATION

Baffling (101.345, .350)

- No face stapling
- No bending on bottom
- Bottom edge over top plate
- Extend above final depth
- Keep vent clear of insulation



ATTIC INSULATION

Coverage Chart & Bag
(101.385, .390)



| PROJECT INFORMATION | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| INSTALLATION ADDRESS | DATE OF INSTALLATION |
| CONTRACTOR NAME | CONTRACTOR PHONE (with area code) |
| CONTRACTOR REPRESENTATIVE | |
| CONTRACTOR ADDRESS | CITY / STATE / ZIP CODE |
| ATTIC | |
| 1. ESTIMATED R-VALUE OF BEGINNING INSULATION LEVEL: | |
| 2. R-VALUE ADDED (DEPTH & TYPE OF INSULATION): | |
| 3. NUMBER OF BAGS USED: | |
| 4. FINAL R-VALUE OF INSULATION: | |
| 5. TOTAL AREA (SQ FT OF SPACE INSULATED): | |
| 6. NUMBER OF RECESSED LIGHTS TINNED: | |
| 7. BATH FANS VENTED OUT: <input type="checkbox"/> YES <input type="checkbox"/> NO If Yes, Number: | |
| 8. KITCHEN FANS VENTED OUT: <input type="checkbox"/> YES <input type="checkbox"/> NO If Yes, Number: | |
| 9. VENTING ADDED: <input type="checkbox"/> YES <input type="checkbox"/> NO If Yes, Number & Size: | |
| 10. INSULATED AREA WAS VENTED TO: <input type="checkbox"/> 1-300 <input type="checkbox"/> 1-150 | |
| WALLS | |
| 1. R-VALUE ADDED (WALL DEPTH & TYPE OF INSULATION): | |
| 2. TOTAL AREA (SQ FT OF SPACE INSULATED): | |
| 3. NUMBER OF BAGS USED: | |
| 4. AREAS NOT INSULATED: <input type="checkbox"/> YES <input type="checkbox"/> NO If Yes, WHICH AREAS AND REASON (e.g., existing insulation, water pipes, heaters, etc.): | |

(continued on other side)

PRESCRIPTIVE AIR SEALING

| Item | Sealing requirements between conditioned and unconditioned space or the outdoors |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attic hatch/door | Install weather-stripping to create an effective air seal between the attic access frame and hatch/door. |
| Pull down stair cover | Install a gasket or weather-stripping between frame and door or install an airtight cover between the stairs and attic. |
| Duct penetrations | Apply mastic, caulk, or other airtight seal around the perimeter of duct boots between the boot and the ceiling. |
| Recessed cans (non-IC) | Install foam, caulk or another airtight seal between fixture and ceiling. Or install an airtight drywall box or another non-flammable air-sealed insulation box. Maintain a 3 inch clearance on all sides and above the fixture. Extend the box above the new insulation so that no insulation covers the top |
| Recessed Cans (IC) | Seal between the interior finish and the fixture. Don't seal over the fixture with spray foam or seal openings in the fixture. An airtight box or prefabricated cover is acceptable. Insulate over the fixture with fibrous insulation. |
| Bath fans | Apply foam, caulk, or other airtight seal around the fixture perimeter. |
| Bath fans with heat source | Use fire-resistant caulk. If the opening is larger than 1 inch, span the gap with sheet metal. |
| Electrical and plumbing penetrations | Apply foam, caulk or other airtight seal around perimeter of electrical fixtures and plumbing penetrations. |
| Knee wall doors | Attach weather-stripping permanently to create an effective air seal between the attic access frame and the hatch or door. Install a latch or handle if necessary. |
| Open wall cavities | Install foam, caulk, or rigid board at the top of balloon-framed walls and to open walls between split-level attic areas. |

UNDER FLOOR INSULATION

- R0/11 to R30 or fill cavity **(101.500, .510)**
- Decay/Water Leaks **(101.515, .520)**
- Venting 1/150 Wet, 1/300 Dry **(101.525, .527)**
- 6 Mil Black Ground Cover **(101.530)**
- Unheated Basement **(101.535)**



UNDER FLOOR INSULATION

Floor Support
(101.550, .551 & Matrix)



IMPROPER FLOOR SUPPORT



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TRADE ALLY

ROUTINE HUMAN CONTACT



FLOOR SUPPORT MATRIX



FLOOR SUPPORT MATRIX

| FLOOR TYPE | SUPPORT MATERIAL | MATERIAL REQUIREMENT | MAXIMUM SPACING | ACCEPTABLE PATTERN | MINIMUM FASTENER TYPE | MINIMUM FASTENER DEPTH INTO JOIST/BEAM |
|---------------------------|------------------|----------------------------------------------|-----------------|-------------------------------------------------------------|---------------------------------------------------|----------------------------------------|
| JOISTS UP TO 32" | LATH | 1/4" X 1.5" | 20" O.C. | Across floor joists | Corrosion resistant nail/staple 1/4" crown 18 AWG | 5/8" |
| | TWINE | 150 lbs. polyeaster, polypropolene, or nylon | 12" O.C. | Shoelace/ Zig Zag | Corrosion resistant staple 3/8" crown 18 AWG | 5/8" |
| | WIRE | Corrosion Resistant 20 AWG. Wire | 18" O.C. | Shoelace/ Zig Zag | Corrosion resistant staple 3/8" crown 18 AWG | 5/8" |
| POST & BEAM OVER 32" O.C. | LATH | 3/8" X 1.5" | 20" O.C. | Across floor beams up to 48", over 48" needs center support | Corrosion resistant staple 3/8" crown 18 AWG | 5/8" |
| | TWINE | 150 lbs. polyeaster, polypropolene, or nylon | 12" O.C. | Shoelace with center support | Corrosion resistant staple 3/8" crown 18 AWG | 5/8" |
| | WIRE | Corrosion Resistant 20 AWG. Wire | 18" O.C. | Shoelace with center support | Corrosion resistant staple 3/8" crown 18 AWG | 5/8" |

MOBILE HOME FLOOR INSULATION

- Blown in requirements (101.600)
- Batts (101.700)
- Road Barrier (101.720)



UNDER FLOOR INSULATION

- Clothes Dryer Exhaust
Exhaust
(101.540)
 - Over 6' rigid hard metal pipe
- Kitchen Range Exhaust
Exhaust
(101.543)



EXTERIOR CRAWLSPACE ACCESS DOORS

Bad



Good



INTERIOR ACCESS DOOR



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FLOOR VENTING

Crawl Access Vent



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FLOOR VENTING



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FLOOR VENTS



FLOOR VENTING



FLOOR VENTING

Complete Below Grade Venting



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FLOOR VENTING

Complete Below Grade Venting



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FLOOR VENTING

Complete Below Grade Venting



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FLOOR VENTING



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UNDER FLOOR INSULATION

- Water Pipe Insulation (101.575)
- Enclosed Floor Insulation (101.595)
- Floors & Human Contact (101.597, .598)



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PRESCRIPTIVE AIR SEALING

| Item | Sealing requirements between conditioned space and unconditioned space or the outdoors |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crawlspace hatch/door | Permanently attach weather-stripping to create an effective air seal between the crawlspace hatch door and its frame. Install rigid framing material and weather-stripping if the hatch isn't supported by a frame on all 4 sides. |
| Duct penetrations | Seal with mastic, caulk, or other airtight seal around perimeter of duct boots between the boot and the subfloor. |
| Plumbing and electrical penetrations | Seal with foam or caulk. Use a rigid, moisture resistant material to span gaps larger than 1". |
| Other open cavities | Use rigid material to cover openings greater than 1". Seal rigid material to the floor with caulk. |



UNFINISHED WALLS

- R-11 minimum (101.815)
- Support and/or cover (101.830)



WATERPIPES/HEATERS/CHIMNEYS



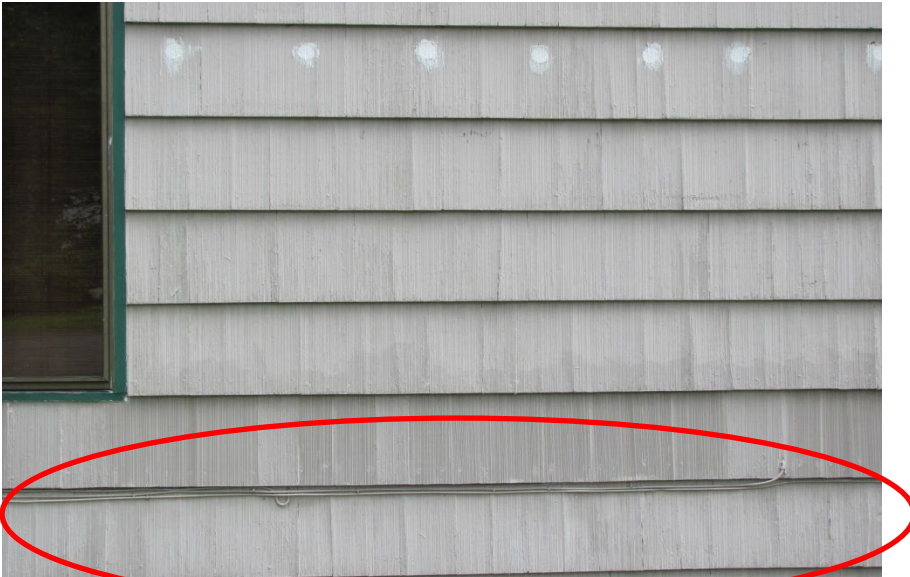
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WALLS - BLOWN IN

- Siding Type {Wood, Shake, Vinyl/Aluminum} **(101.915)**
- Two Holes per Cavity **(101.930, .940)**
- Cavities with Existing Insulation **(101.935)**
- Space Heater/Water Pipe Cavities **(101.943, .944)**
- Knob & Tube Wiring **(101.945)**

WALLS - BLOWN IN

- Plug & Spackle (101.950)
 - No drilling through shake



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BLOWN WALLS



HVAC DUCTS

- R-8 Minimum Requirement **(101.1100)**
- Duct Sealing **(101.1000)**



HVAC DUCTS



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HVAC DUCTS

Floor Penetration



HVAC DUCTS

Before



After



DUCT INSULATION

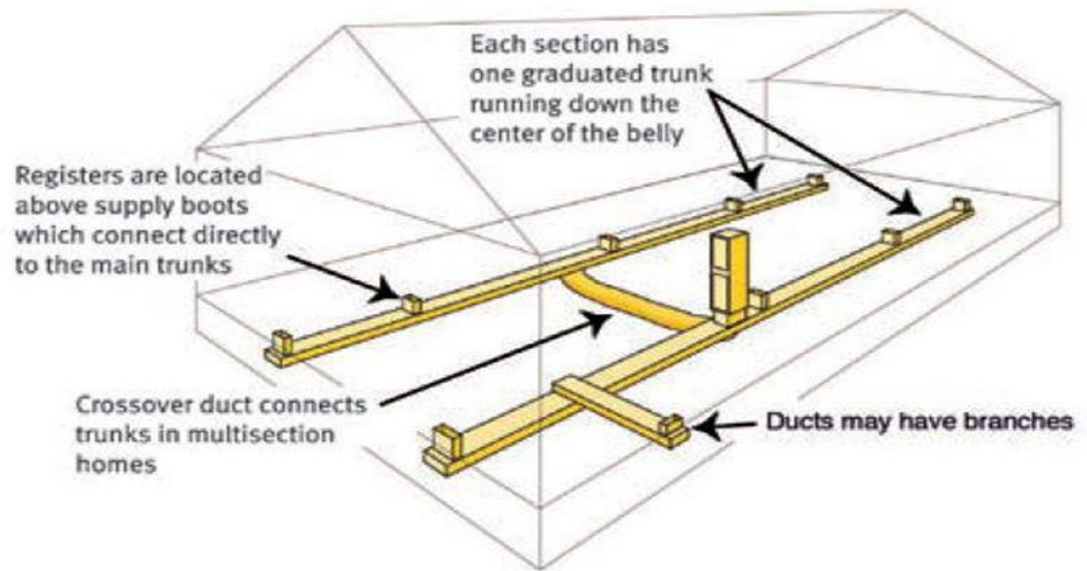
Spec
101.1100



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MOBILE HOME DUCT REQUIREMENTS

- Crossover
- Boots
- Register
- End Caps
- Any exposed ducting



Typical floor duct system

HVAC DUCTS



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HVAC DUCTS

- Repairing Ducts **(101.1000)**
- Ducts in Human Contact **(101.1100)**
- Duct Support {twine/strapping} **(101.1000 .4)**
 - Flex Supported every 4' with 1 ½" strap
- R-4 Flex Ducts {replace} **(101.1100)**
 - Final Minimum R-Value R-8

QUALITY CONTROL

INSPECTION REQUIREMENTS

- All jobs subject to verification* before rebate payment is made
- Inspection will result in
 - Pass – payment is authorized
 - Not passed – needed fixes communicated to contractor
 - **Must be corrected within 30 days**
- High pass rate may lead to lower rate of inspection

****NOTE: Photographs required as proxy for on-site verification during COVID-19 restrictions***



COMMON ERRORS: INSULATION - ATTIC

- Not enough venting
- Kitchen exhaust duct/cap not metal
- Heat producing fixtures not protected
- No knob & tube report
- R-value requirement not met
- Incorrect type/size of screening
- Exhaust duct not insulated
- Exhaust fan dampers
- Incorrect duct material
- Fan/ducting not sealed to ceiling

COMMON ERRORS: INSULATION - FLOOR

- Not enough venting
- Kitchen exhaust duct/cap not metal
- Not properly supported
- Not all areas insulated
- R-Value requirement not met
- Protective covering not installed
- Incorrect type of screen
- Exhaust duct not insulated
- Incorrect exhaust duct material
- Exhaust fan and ducting not sealed
- Gaps/voids in insulation



COMMON ERRORS: INSULATION - DUCTS

- R-value requirement not met
- Not all areas insulated
- Protective covering not installed (human contact)
- Excessive flex ducting >30 ft
- Penetrations not sealed
- Missing mastic
- Not properly supported
- Gaps and voids in insulation

COMMON ERRORS:

INSULATION (BLOWN) – WALL & FLOOR

- Cavities with water pipes and or wall heaters blown
- No knob & tube report
- Not all areas insulated
- Spackling was not done
- No coverage chart
- Did not pick-up site
- Spackling didn't setup

MEETING PROGRAM REQUIREMENTS

WARRANTY REQUIREMENTS

- 2-year minimum all inclusive labor and materials required (101.040)
- Leave warranty information with homeowner



RESOURCES

PUD ENERGY ADVISOR LINE

For timely help with

- **Eligibility** – you have a scenario that isn't covered by our standard eligibility requirements or customer qualification description
- **Specifications** – you have an installation or equipment question that isn't covered in the specification guide
- **Sizing Calculator** – you have a special situation or are having trouble using the Calculator
- **“Call before you install”**

(425) 229-5598



IMPORTANT: TRADE ALLY RESOURCES

www.snopud.com/TAResources

- ALL Application Forms
- Supporting Docs: Bid Forms, Extension Request, Insulation Certificate...
- Technical Specifications: Weatherization, Heating, Venting
- Contractor FAQ (Frequently Asked Questions)
- Sample Rebate Applications
- Newsletters, Bulletins, Logo Usage guidelines
- Contractor Agreement & Monitoring procedures
- Program Info:
 - www.snopud.com/weatherization



REGISTERED TRADE ALLY LOGO

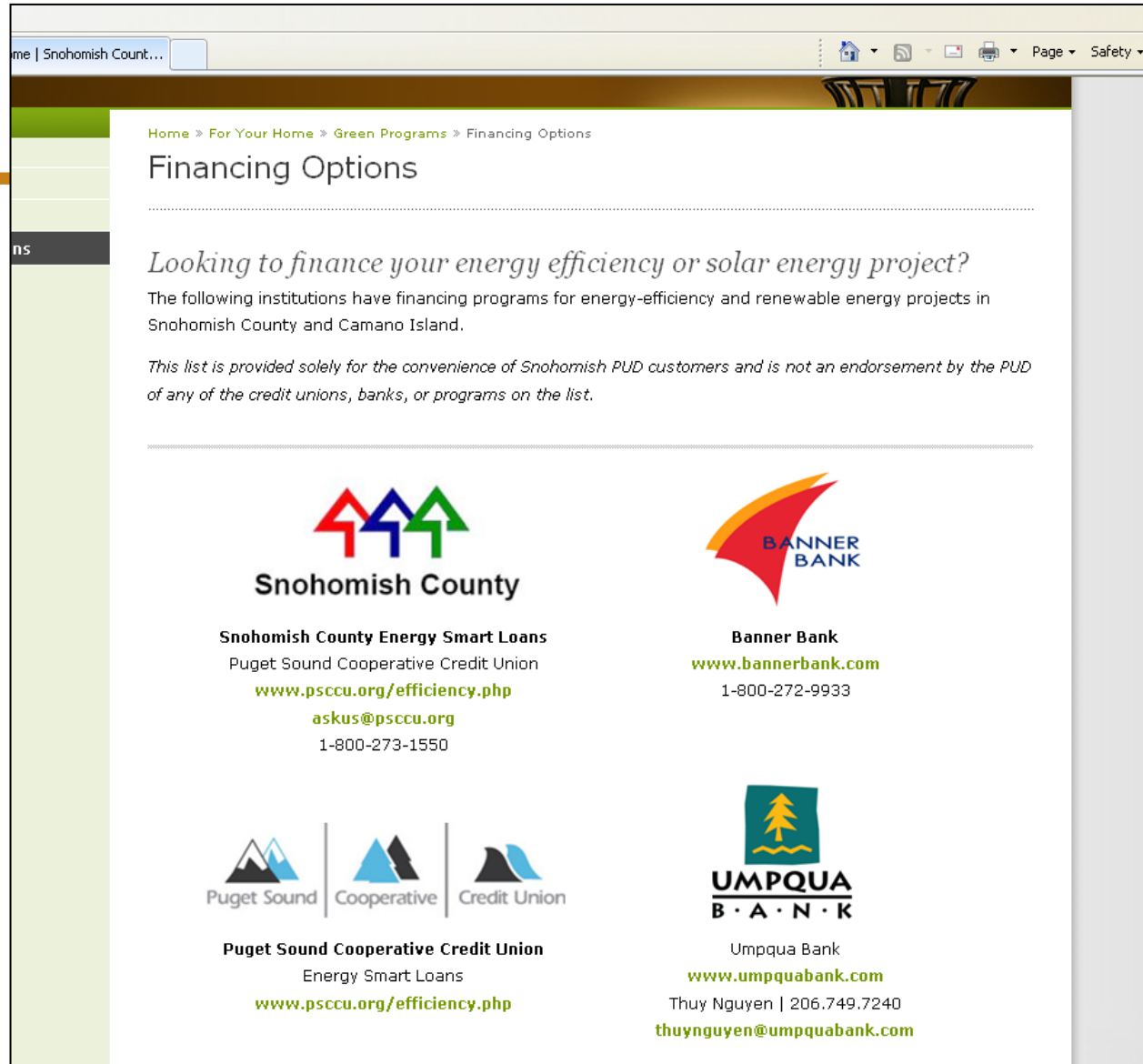
- **Promote** your authorized participation in PUD energy efficiency initiatives, and ability to offer rebates
- Use **online** & in **print** materials
- All use must be **pre-approved**
- See **usage guidelines** on www.snopud.com/TAResources



Cori Mitchell
425-783-1716
cdmitchell@snopud.com

FINANCING OPTIONS

Link from
[www.snopud.com/
TAResources](http://www.snopud.com/TAResources)



me | Snohomish Count... | Page | Safety


Home » For Your Home » Green Programs » Financing Options

Financing Options

Looking to finance your energy efficiency or solar energy project?


The following institutions have financing programs for energy-efficiency and renewable energy projects in Snohomish County and Camano Island.

This list is provided solely for the convenience of Snohomish PUD customers and is not an endorsement by the PUD of any of the credit unions, banks, or programs on the list.




Snohomish County


Snohomish County Energy Smart Loans
Puget Sound Cooperative Credit Union
www.pscu.org/efficiency.php
askus@pscuc.org
1-800-273-1550



Banner Bank
www.bannerbank.com
1-800-272-9933



Puget Sound Cooperative Credit Union
Energy Smart Loans
www.pscu.org/efficiency.php



Umpqua Bank
www.umpquabank.com
Thuy Nguyen | 206.749.7240
thuynghuyen@umpquabank.com

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edwalstad@snopud.com



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- **Office Coordinators**
 - Kim Anderson
 - Carol Jodock
- **Fax** **425-267-6762**
- **Energy Advisor line** **425-229-5598**
- **Mailing Address**

Residential Programs
PO BOX 1107 MS E2
Everett, WA 98206-1107



THANK YOU

**... for helping our
customers save
energy!**