SAS/PAES

The ELCAP data at BPA

Residential Characteristics Cross Reference

INSTRUCTIONS

DATASETS

HOUSEHOLD

APPLIANCES

SPACE-HEATING

WATER-HEATING

BUILDING STRUCTURE
ELCAP Data at BPA
Instructions to the Reader

This booklet should be used to identify ELCAP characteristics variables residing on IBM SAS files for the analytic topics appearing below. The DATASETS section provides an overview of the IBM SAS files containing the ELCAP Characteristics data referenced in this document. The following information is included in the DATASETS section:

- SAS file name which contains the data library
- SAS file description (associated survey or activity)
- SAS file name
- Prefix of all variable names which belong to the SAS file

Following the DATASETS section are sections which denote topics of interest. The reader can turn to any of these remaining sections and locate variable descriptions for his/her topic of interest. Currently there are five topics identified. These are:

- SPACE-HEATING
- WATER-HEATING
- STRUCTURE
- APPLIANCES
- HOUSEHOLD

In each of the five sections, the variables related to the topic are listed in distinct categories. An index is provided at the beginning of each section to assist in locating categories of interest.

For each variable listed, the following is provided:

- variable description
- SAS variable name and question number
  (appearing in parentheses)

The reader can infer which data set the variable belongs to by the prefix of the variable name. The cross reference for identifying the dataset name from the variable name is found in the DATASETS section of this booklet.

The reader will also note that, in some cases, no question number is provided with a variable name. This is because the variable was not taken directly from the survey. In these cases the variable is said to be 'derived'. Every effort has been made to provide question numbers to derived variables which are directly related to specific survey questions.
The ELCAP Characteristics Data Base is contained in a SAS library which is held in a file maintained on BPA's IBM mainframe computer. The file containing the library is named `RPEE.RLCAPELCAP.CDB.SASDB`.

Below is a tabulated cross reference which identifies three things:
1) the member name of each data set which is in the library
2) the survey or inspection represented by the member data set
3) the prefix of all variable names belonging to variables stored in the member data set.

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<td>*HVAC Distribution</td>
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* - Data set contains multiple observations per site. The number of observations per site vary from site to site.
Household Characteristics Data

Category Index *

Demographics:

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Age (1)
Size of Household (2)
Household Income (3)
Schooling (3)

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Energy Audit Program Involvement (4)
Weatherization - Doors and Windows (5)
Weatherization - Water Heating (6)
Weatherization - Insulation to Structure (7)

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* Page number in parenthesis
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Household Cross-Reference

DEMOGRAPHICS

Employment

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Age of respondent (first householder).  R85M073  Q-26
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Age groups living at the residence.  FRC015

Actual age of a particular household member (order of variables below indicate the nth household member).  PNW_V3*  Q-130
                                                        *=21,25,29,33,37,41,45,49,53,57

Age category of a particular household member (order of variables below indicate the nth household member).  PNW_V3*  Q-130
                                                        *=22,26,30,34,38,42,46,50,54,58
DEMOGRAPHICS

Size of household
Number of occupants in dwelling.

Number of occupants in dwelling under 6 yrs old.

Number of occupants in dwelling 6-17 years old.

Number of occupants in dwelling 18-25 years old.

Number of occupants in dwelling 26-35 years old.

Number of occupants in dwelling 36-55 years old.

Number of occupants in dwelling 56-65 years old.

Number of occupants in dwelling 18-65 years old.

Number of occupants in dwelling over 65 yrs old.

Is there a second adult householder?
ELCAP Data at BPA
Household Cross-Reference

DEMOGRAPHICS

Household Income

Annual Income.

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<td>E88S134</td>
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Education

Most educated member of the household. FRC012

Highest education level attained by respondent (first householder).

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Highest education attained by second householder.

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CONSERVATION ACTIVITY

Weatherization - General Questions

Conservation measures taken since audit which were recommended. R85T104 Q-98
Conservation measures taken since audit and on own initiative. R85T105 Q-100
R85T106 Q-101
R85T107 Q-101
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What has kept you from taking further conservation measures? R85T108 Q-102

Energy Audit Program Involvement

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R85T098 Q-94
In what year was your home last inspected by an energy professional? PNW_V083 Q-27
In what month was your home last inspected by an energy professional? PNW_V082 Q-27
How likely is it that you would let an energy professional inspect your home? PNW_V081 Q-26
In what period was your home last inspected by an energy professional? PNW_V084 Q-28
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CONSERVATION ACTIVITY

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Storm doors added since audit.  
Storm doors added in last three years.  
Storm windows/insulated glass recommended.  
Storm windows/insulated glass added since audit.  
Storm windows/ins glass added in last 3 yrs.  
Plastic over windows recommended.  
Plastic over windows added since audit.  
Plastic over windows added in last three years.  
Weatherstripping recommended.  
Weatherstripping added since audit.  
Weatherstripping added in last three years.  
Caulking recommended.  
Caulking added since audit.  
Caulking added in last three years.
CONSERVATION ACTIVITY

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CONSERVATION ACTIVITY

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Energy

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R85T095  Q-91  
R86S002  Q-1  
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It is hard to make this home energy efficient.  
PNW_V070  Q-22E  
R86S021  Q-6E  

Need to change lifestyle to save enough energy to make a difference in bills.  
PNW_V073  Q-22H  
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R86S019  Q-6C  

First action you would take to reduce electric utility bill.  
R85T096  Q-92  

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PNW_V067  Q-22B  
R86S018  Q-6B  

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PNW_V072  Q-22G  
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PNW_V066  Q-22A  
R86S017  Q-6A  

Turning down thermostat is worthwhile when no one home for two hours or more.  
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R86S020  Q-6D  

People have right to use as much energy as they want and can pay for.  
PNW_V071  Q-22F  
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ELCAP Data at BPA
Household Cross-Reference

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Year respondent first moved into residence. PNW_V015 Q-7
R85M064 Q-22B
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ELCAP Data at BPA
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OTHER

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Have there been periods when no electricity was used for a week or more since September 1, 1981?  PNW_V203  Q-74

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(9/81 to 5/83)

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Ethnic origin of a 1st household member.  PNW_V361  Q-132

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- Refrigerators - Presence/number of (1)
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- Refrigerators - Accessories/attached freezer (2)
- Refrigerators - Changes (2)
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- Changes (6)

Clothes Dryers:
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- Changes (7)
- Miscellaneous (7)

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* Page number in parenthesis
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* Page number in parenthesis
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Appliance Cross-Reference

REFRIGERATORS/FREEZERS

Combined Refrigerator/Freezer Information

Type of refrigerator/freezing equipment. RI33003 Q-24

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Volume of a refrigerator at residence in cubic feet. PNW_V276 Q112
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Refrigerators - Location

Heating zone where a refrigerator is located. RI33006 Q-24

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1 Applies only if RI024A ranges from 1 to 5, see General Information.
REFRIGERATORS/FREEZERS

Refrigerators - Accessories/attached freezer

Location of freezer unit on the refrigerator.  
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Manufacturer of a refrigerator at the residence.  
RI33007  Q-24\(^1\)

Model Number of a refrigerator at the residence.  
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Wattage of a refrigerator at the residence.  
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RI61053  Q-7

Important features in refrigerator purchased since 1983.  
RI61059  Q-7
RI61060  Q-7

\(^1\) Applies only if RI024A ranges from 1 to 5, see General Information.
ELCAP Data at BPA
Appliance Cross-Reference

REFRIGERATORS/FREEZERS

Freezers - General Information

Type of refrigerator/freezing equipment. RI33003 Q-24

Freezers - Size/number

Volume of a separate freezer at residence in cubic feet. PNW V283 Q112
PNW V284 Q112
RI33012 Q242
R85M042 Q12B

Number of separate freezers in the home. PNW V282 Q-115
E87S078 Q-18B
E88S072 Q-18B

Number of separate electric freezers used in the home. E87S080 Q-18B

Number of separate gas freezers used in the home. E87S079 Q-18B

Number of separate other fuel freezers used in the home. E87S081 Q-18B

Freezers - Accessories

Is a freezer at the residence upright or horizontal? PNW V285 Q-117
PNW V286 Q-117

Is a freezer at the home frost-free? PNW V287 Q-118
PNW V288 Q-118

Manufacturer of a freezer at the residence. RI33007 Q-242

Model Number of a freezer at the residence. RI33008 Q-242

Year of manufacture of a freezer at the residence. RI33009 Q-242

Wattage of a freezer at the residence. RI33010 Q-242

Location of nameplate on a freezer at the residence. RI33006 Q-242

Ice-maker included with a freezer at the residence? RI33005 Q-242

2 Applies only if RI024A ranges from 6 to 7, see General Information.
REFRIGERATORS/FREEZERS

Freezers - Location
Heating zone where a freezer is located. RI33006 Q-24\(^2\)

Freezers - Changes
Freezer replaced or added since 1983? R85T080 Q-76
Number of freezers purchased in the last year? EB7S108 Q-19
Kept and using old freezer after purchase? EB7S109 Q-19

\(^2\) Applies only if RI024A ranges from 6 to 7, see General Information.
ELCAP Data at BPA
Appliance Cross-Reference

DISHWASHERS

Number/presence of

Dishwashers present at residence? PNW_V014 Q-6F
Number of dishwashers at residence. E87S094 Q-18
                                               E88S076 Q-18F
Number of electric dishwashers at residence. E87S096 Q-18
Number of non-electric dishwashers at residence. E87S097 Q-19
Number of natural gas dishwashers at residence. E87S095 Q-18
Dishwasher used on own electric or gas metered lines. PNW_V292 Q-119

Accessories

Dishwasher has water heating element? PNW_V293 Q-120
                                               RI32006 Q-25D
Dishwasher has energy saver switch? PNW_V294 Q-120
                                               RI32005 Q-25C
Is the dishwasher energy saver switch used regularly? PNW_V295 Q-121
Is the dishwasher heating element disconnected or seldom used? PNW_V296 Q-121

Changes

Replaced dishwasher since 1983? R85T087 Q-83
Were dishwashers purchased in last year? E87S116 Q-19
Kept and using dishwasher after purchase last year? E87S117 Q-19

Miscellaneous

Manufacturer of a dishwasher at the residence. RI32003 Q-25
Model number of a dishwasher at the residence. RI32004 Q-25
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Appliance Cross-Reference

CLOTHES WASHERS

Number/presence of
Clothes washer present or used at site? PNW_V012 Q-6
Number of clothes washers at residence. R85M043 Q-12C
RI31007 Q-26H
E87S098 Q-18
E88S077 Q-18H

Number of electric clothes washers at residence. E87S100 Q-18
Number of natural gas clothes washers at residence. E87S099 Q-18

Number of other fuel clothes washers at residence. E87S101 Q-18
Clothes washer used on own electric or gas metered lines? PNW_V289 Q-119

Changes

Replaced clothes washer since 1983? R85T081 Q-77
Were clothes washers purchased in last year? E87S118 Q-19
Kept and using original clothes washer after purchase in last year? E87S119 Q-19
ELCAP Data at BPA
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CLOTHES DRYERS

Number/presence of

Clothes washer present or used at site? PNW_V013 Q-6

Number of clothes dryers at site? E87S102 Q-18
                  E88S078 Q-19

Number of electric clothes dryers at site? RI31008 Q-26
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                E87S104 Q-18

Number of natural gas clothes dryers at site? RI31009 Q-26
                E87S103 Q-18

Number of other fuel clothes dryers at site? E87S105 Q-18

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Were clothes dryers purchased in last year? E87S120 Q-19

Kept and using original clothes dryer after purchase in last year? E87S121 Q-19

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                  RI61054 Q-7

Important features in dryer purchased since 1983. RI61061 Q-7
                RI61062 Q-7

Miscellaneous

Electric clothes dryer used on own metered lines? PNW_V290 Q-119

Gas clothes dryer used on own metered lines? PNW_V291 Q-119
TELEVISIONS

Number/presence of

Number of televisions.  

PNW_V254  Q-98

Is a color television present at the site?  

PNW_V255  Q-99
PNW_V256  Q-99

Number of black and white tvs at residence.  

RI31012  Q-26

Number of color tvs at residence.  

RI31013  Q-26

Number of televisions or computer monitors in home.  

R85M048  Q-12H

Changes

Replaced or added television since 1983?  

R85T086  Q-82

Age

Age (years) of a television present at the site?  

PNW_V257  Q-100
PNW_V258  Q-100
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Number/presence of

Home furnished with stove top burners?  PNW_V010  Q-6
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Fuel used with stove top burners?  PNW_V259  Q-101
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Number of electric stove top ranges.  RI31002  Q-26  E87S084  Q-18
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Changes

Number of stove top ranges purchased in past year.  E87S110  Q-19
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Appliance Cross-Reference

OVENS

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Home furnished with oven?                  PNW_V011  Q-6
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If first oven uses electricity, is it a micro-wave? PNW_V265  Q-106
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Was first oven installed before or after moved in? PNW_V269  Q-108
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Is second oven separate or combined with stove top? PNW_V268  Q-107
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OVENS

Number/electric

Number of ovens.

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E88S074  Q-18

Number of electric ovens.

R85M050  Q-13B
E87S088  Q-18
RI31044  Q-26

Number of electric oven/ranges.

RI31005  Q-26

Number of micro-wave ovens.

RI31006  Q-26
R85M051  Q-13C
E87S090  Q-18
E88S075  Q-18

Number of electric micro-wave ovens.

E87S092  Q-18

Number of toaster ovens.

R85M053  Q-13E

Number/non-electric

Number of gas ovens.

R85M049  Q-13A
E87S087  Q-18
RI31045  Q-26

Number of gas oven/ranges.

RI31005  Q-26

Number of other fuel ovens.

E87S089  Q-18

Number of gas micro-wave ovens.

E87S091  Q-18

Number of other fuel micro-wave ovens.

E87S093  Q-18

Number of convection ovens.

R85M052  Q-13D
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MISCELLANEOUS APPLIANCES

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R85T083 Q-79

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RI61064 Q-7

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R85M046 Q-12F

Bought heater for water bed since 1983? RI61056 Q-6
R85T084 Q-80

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RI31028  Q-26

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PNW V312  Q-126

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RI31032  Q-26

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R85T069  Q-73

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RI31024  Q-26

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* = 35-43
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**FUELS USED**

**Main/Backup Fuels Present**

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FUELS USED

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PNW_V172  Q-61

Amount of wood used for space heating last winter.  
R85T065  Q-61

Number of cords burned in past year?  
PNW_V189  Q-68

Number of logs burned in past year?  
PNW_V188  Q-67

Percent of wood burned purchased?  
PNW_V190  Q-69

Percent of wood on hand purchased last year.  
R85T066  Q-62

Importance of availability of conventional fuel in choosing to heat with wood.  
R85M087  Q-34D

Importance of comfort when choosing to heat with wood.  
R85M092  Q-34I

Importance of conventional fuel cost on choosing wood heat.  
R85M085  Q-34B

Importance of delivery cost on choosing to heat with wood.  
R85M084  Q-34A

Importance of distance to gather wood on choosing wood heat.  
R85M086  Q-34C

Importance of equipment cost when choosing wood heating.  
R85M093  Q-34J

Importance of inconvenience when gathering wood on choosing to heat with wood.  
R85M088  Q-34E

Importance of maintaining woodstove when choosing wood heat.  
R85M090  Q-34G

Importance of heating whole house when choosing wood heat.  
R85M089  Q-34F

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R85M091  Q-34H
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**FUELS USED**

**Miscellaneous**

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FRC006
R85M037 Q-8

Equipment used if additional fuel is gas or kerosene. PNW_V182 Q-62

Equipment used most for space heating if fueled by gas. PNW_V158

Fossil fuel space heating system available. FRC016

Equipment used in HVAC system. (Mult obs) RI24006 Q-17D

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R85M038 Q-9

Changes

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Heating equipment installed when moved in? PNW_V168 Q-57

Year heating equipment used most of the time installed. PNW_V169 Q-58

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EQUIPMENT/GENERAL

Miscellaneous

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**ELECTRIC EQUIPMENT**

**Systems Present**

Electric baseboard heating available? FRC007
Electric central forced air heating available? FRC007
Electric individual room force air heating available? FRC007
Electric radiant heating available? FRC007
Electric space heating system available? FRC007
Electric heatpump heating available? FRC007

Equipment used most for space heating if fueled by electricity. PNW_V159 Q-50
Equipment used if additional fuel is electricity. PNW_V183 Q-63

**Changes**

Purchased electric heating or cooling system in past year? RI61057 Q-6E

First feature of electric heating or cooling system purchased in past year. RI61067 Q-7I

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Systems Present

Wood space heating system available? R85T060 Q-58
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Equipment used if additional fuel is wood. PNW_V184 Q-64

Equipment used most for space heating if fueled by wood PNW_V160 Q-51

Number of free-standing wood stoves used. E87S066 Q-15A
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Number of other wood burning equipment items used. E87S071 Q-15F
                                             E88S069 Q-16F

Number of wood furnaces used. E87S068 Q-15C
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                                             E88S067 Q-16D

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- R85M009 Q-3A
- R85T121 Q-115
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- E87S025 Q-6A
- E87S202
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- PNW_V199 Q-72C
- R85M010 Q-3B
- R85T122 Q-116
- E87S028 Q-7A
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Temperature in house while nobody home.

- PNW_V196 Q-72B
- R85M011 Q-3C
- R85T123 Q-117

Maximum temperature in house while awake.

- PNW_V195 Q-72
- E87S027 Q-6C

Maximum temperature in house while asleep.

- PNW_V201 Q-72
- E87S030 Q-7C

Maximum temperature in house while nobody home.

- PNW_V198 Q-72

Minimum temperature in house while asleep.

- PNW_V200 Q-72
- E87S029 Q-7B

Minimum temperature in house while awake.

- PNW_V194 Q-72
- E87S026 Q-6B

Minimum temperature in house while nobody home.

- PNW_V197 Q-72

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- PNW_V069 Q-22

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Date Installed
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- Bedrooms (3)
- Dens (4)
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Vintage

Year dwelling was built.

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<th>Year</th>
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<tbody>
<tr>
<td>PNW_V023</td>
<td>Q-14</td>
</tr>
<tr>
<td>RI10005</td>
<td>Q-1D</td>
</tr>
<tr>
<td>R85M062</td>
<td>Q-21</td>
</tr>
<tr>
<td>R85T006</td>
<td>Q-4</td>
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<tr>
<td>E885002</td>
<td>Q-1</td>
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Estimated period dwelling was built.

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<tr>
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<td>Q-1E</td>
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Decade when dwelling built.

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Size

Volume heated by a specific heating system.

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<tr>
<td>RI44007</td>
<td>Q-11E</td>
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<tr>
<td>RI44011</td>
<td>Q-11I</td>
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<tr>
<td>RI10007</td>
<td>Q-1F</td>
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Volume of unheated zone in dwelling.

<table>
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<th>Year</th>
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</thead>
<tbody>
<tr>
<td>PNW_V007</td>
<td>Q-4</td>
</tr>
<tr>
<td>PNW_V006</td>
<td>Q-3</td>
</tr>
<tr>
<td>PNW_V005</td>
<td>Q-2</td>
</tr>
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</table>

Number of conditioned levels in dwelling.

Miscellaneous

Detached or attached if 2-4 units

<table>
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<th>Code</th>
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<tbody>
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<td>PNW_V007</td>
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Number of housing units in building

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<tr>
<td>PNW_V006</td>
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Type of dwelling

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<tbody>
<tr>
<td>PNW_V005</td>
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</tbody>
</table>
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Number of rooms not heated. PNW_V047 Q-18
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E88S043 Q-4H

Number of bathrooms at higher temperature. E87S038 Q-8H
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Number of bathrooms in living area? E88S044 Q-5H
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Number of toilets in conditioned zone. RI45014 Q-13M

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Number of bathroom/showers in conditioned zone? RI45012 Q-13K

Number of bathroom/showers in unconditioned zone? RI45013 Q-13L
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Room Breakdowns-Bedrooms

<table>
<thead>
<tr>
<th>Number of bedrooms.</th>
<th>PNW_V034</th>
<th>Q-17E</th>
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<tbody>
<tr>
<td></td>
<td>R85M015</td>
<td>Q-5A</td>
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<td>R85T025</td>
<td>Q-23</td>
</tr>
<tr>
<td></td>
<td>E87S011</td>
<td>Q-4-G</td>
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<td>E88S038</td>
<td>Q-4-G</td>
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<tr>
<td>Number of bedrooms at higher temperature.</td>
<td>E87S037</td>
<td>Q-8G</td>
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<td>E88S040</td>
<td>Q-8G</td>
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<tr>
<td>Number of bedrooms at lower temperature.</td>
<td>E87S047</td>
<td>Q-9G</td>
</tr>
<tr>
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<td>E88S041</td>
<td>Q-9G</td>
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<tr>
<td>Number of bedrooms not heated.</td>
<td>PNW_V035</td>
<td>Q-18</td>
</tr>
<tr>
<td></td>
<td>R85M016</td>
<td>Q-6A</td>
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<tr>
<td></td>
<td>R85T026</td>
<td>Q-24</td>
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<td>R86S005</td>
<td>Q-3B</td>
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<td>E87S057</td>
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<td>E88S042</td>
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<tr>
<td>Number of bedrooms in living area.</td>
<td>E88S039</td>
<td>Q-5G</td>
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<tr>
<td></td>
<td>E87S021</td>
<td>Q-5G</td>
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<tr>
<td>Number of bedrooms in conditioned zone.</td>
<td>RI45010</td>
<td>Q-13I</td>
</tr>
<tr>
<td>Number of bedrooms in unconditioned zone.</td>
<td>RI45011</td>
<td>Q-13J</td>
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</table>
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**Room Breakdowns-Dens**

<table>
<thead>
<tr>
<th>Room</th>
<th>Code</th>
<th>Temp</th>
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<tr>
<td>PNW V036</td>
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<tr>
<td>R85T037</td>
<td>Q-35</td>
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<tr>
<td>R85M027</td>
<td>Q-5G</td>
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<tr>
<td>E87S010</td>
<td>Q-4F</td>
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</tr>
<tr>
<td>E88S033</td>
<td>Q-4F</td>
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<tr>
<td>Number of dens at higher temperature.</td>
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<tr>
<td>E87S036</td>
<td>Q-8F</td>
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</tr>
<tr>
<td>E88S035</td>
<td>Q-8F</td>
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<tr>
<td>Number of dens at lower temperature.</td>
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<tr>
<td>E87S046</td>
<td>Q-9F</td>
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<tr>
<td>E88S036</td>
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<tr>
<td>Number of dens not heated.</td>
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<tr>
<td>PNW V037</td>
<td>Q-18</td>
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<tr>
<td>R85T038</td>
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<tr>
<td>R85M028</td>
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<td>R86S007</td>
<td>Q-3D</td>
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<td>E87S056</td>
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<td>E88S037</td>
<td>Q-10F</td>
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<tr>
<td>Number of dens in living area.</td>
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<tr>
<td>E88S034</td>
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<tr>
<td>E87S020</td>
<td>Q-5F</td>
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<tr>
<td>Number of den/sewing rooms in conditioned zone.</td>
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<tr>
<td>RI45016</td>
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<tr>
<td>Number of den/sewing rooms in unconditioned zone.</td>
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<tr>
<td>RI45017</td>
<td>Q-13P</td>
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</table>
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Room Breakdowns-Dining Rooms

Number of dining rooms.

<table>
<thead>
<tr>
<th>Code</th>
<th>Area</th>
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<tbody>
<tr>
<td>PNW V028</td>
<td>Q-17</td>
</tr>
<tr>
<td>R85M019</td>
<td>Q-5C</td>
</tr>
<tr>
<td>R85T029</td>
<td>Q-27</td>
</tr>
<tr>
<td>E87S007</td>
<td>Q-4C</td>
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<tr>
<td>E88S018</td>
<td>Q-4C</td>
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</tbody>
</table>

Number of dining rooms at higher temperature.

<table>
<thead>
<tr>
<th>Code</th>
<th>Area</th>
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</thead>
<tbody>
<tr>
<td>E87S033</td>
<td>Q-8C</td>
</tr>
<tr>
<td>E88S020</td>
<td>Q-8C</td>
</tr>
</tbody>
</table>

Number of dining rooms at lower temperature.

<table>
<thead>
<tr>
<th>Code</th>
<th>Area</th>
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</thead>
<tbody>
<tr>
<td>E87S043</td>
<td>Q-9C</td>
</tr>
<tr>
<td>E88S021</td>
<td>Q-9C</td>
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Number of dining rooms not heated.

<table>
<thead>
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<th>Code</th>
<th>Area</th>
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</thead>
<tbody>
<tr>
<td>PNW V029</td>
<td>Q-18</td>
</tr>
<tr>
<td>R85M020</td>
<td>Q-6C</td>
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<tr>
<td>R85T030</td>
<td>Q-2B</td>
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<tr>
<td>R86S008</td>
<td>Q-3E</td>
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<tr>
<td>E87S053</td>
<td>Q-10C</td>
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<tr>
<td>E88S022</td>
<td>Q-10C</td>
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Number of dining rooms in living area.

<table>
<thead>
<tr>
<th>Code</th>
<th>Area</th>
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</thead>
<tbody>
<tr>
<td>E88S019</td>
<td>Q-5C</td>
</tr>
<tr>
<td>E87S017</td>
<td>Q-5C</td>
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</table>

Number of dining rooms in conditioned zone.

<table>
<thead>
<tr>
<th>Code</th>
<th>Area</th>
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<tbody>
<tr>
<td>RI45004</td>
<td>Q-13C</td>
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Number of dining rooms in unconditioned zone.

<table>
<thead>
<tr>
<th>Code</th>
<th>Area</th>
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<tbody>
<tr>
<td>RI45005</td>
<td>Q-13D</td>
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</table>
### BUILDING SUMMARY

#### Room Breakdowns-Family Rooms

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Q</th>
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<tr>
<td>Number of family rooms</td>
<td>PNW V038</td>
<td>Q-17</td>
</tr>
<tr>
<td></td>
<td>R85M029</td>
<td>Q-5H</td>
</tr>
<tr>
<td></td>
<td>R85T039</td>
<td>Q-37</td>
</tr>
<tr>
<td></td>
<td>E87S009</td>
<td>Q-4E</td>
</tr>
<tr>
<td></td>
<td>E88S028</td>
<td>Q-4E</td>
</tr>
<tr>
<td>Number of family rooms at higher temperature.</td>
<td>E87S035</td>
<td>Q-8E</td>
</tr>
<tr>
<td></td>
<td>E88S030</td>
<td>Q-8E</td>
</tr>
<tr>
<td>Number of family rooms at lower temperature.</td>
<td>E87S045</td>
<td>Q-9E</td>
</tr>
<tr>
<td></td>
<td>E88S031</td>
<td>Q-9E</td>
</tr>
<tr>
<td>Number of family rooms not heated.</td>
<td>PNW V039</td>
<td>Q-18</td>
</tr>
<tr>
<td></td>
<td>R85M030</td>
<td>Q-6H</td>
</tr>
<tr>
<td></td>
<td>R85T040</td>
<td>Q-38</td>
</tr>
<tr>
<td></td>
<td>R86S009</td>
<td>Q-3F</td>
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<tr>
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<td>E87S055</td>
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</tr>
<tr>
<td></td>
<td>E88S032</td>
<td>Q-10E</td>
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<tr>
<td>Number of family rooms in living area.</td>
<td>E88S029</td>
<td>Q-5E</td>
</tr>
<tr>
<td></td>
<td>E87S019</td>
<td>Q-5E</td>
</tr>
<tr>
<td>Number of family rooms in conditioned zone.</td>
<td>RI45018</td>
<td>Q-13Q</td>
</tr>
<tr>
<td>Number of family rooms in unconditioned zone.</td>
<td>RI45019</td>
<td>Q-13R</td>
</tr>
</tbody>
</table>
BUILDING SUMMARY

Room Breakdowns-Kitchen/Dining Rooms

Number of kitchen/dining rooms.  
PNW V030  Q-17
R85T031  Q-29
R85M021  Q-5D
E87S005  Q-4A
E88S008  Q-4A

Number of kitchen/dining rooms at higher temperature.  
E87S031  Q-8A
E88S010  Q-8A

Number of kitchen/dining rooms at lower temperature.  
E87S041  Q-9A
E88S011  Q-9A

Number of kitchen/dining rooms not heated.  
PNW V031  Q-18
R85M022  Q-6D
R85T032  Q-30
R86S010  Q-3G
E87S051  Q-10A
E88S012  Q-10A

Number of kitchen/dining rooms in living area.  
E88S009  Q-5A
E87S015  Q-5A

Number of kitchen/dining rooms in conditioned zone.  
RI45006  Q-13E

Number of kitchen/dining rooms in unconditioned zone.  
RI45007  Q-13F
### BUILDING SUMMARY

**Room Breakdowns-Kitchens**

**Number of kitchens.**

<table>
<thead>
<tr>
<th>Room Code</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>PNW V032</td>
<td>Q-17</td>
</tr>
<tr>
<td>R85M023</td>
<td>Q-5E</td>
</tr>
<tr>
<td>R85T033</td>
<td>Q-31</td>
</tr>
<tr>
<td>E87S006</td>
<td>Q-4B</td>
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<tr>
<td>E88S013</td>
<td>Q-4B</td>
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**Number of kitchens at higher temperature.**

<table>
<thead>
<tr>
<th>Room Code</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>E87S032</td>
<td>Q-8B</td>
</tr>
<tr>
<td>E88S015</td>
<td>Q-8B</td>
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</table>

**Number of kitchens at lower temperature.**

<table>
<thead>
<tr>
<th>Room Code</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>E87S042</td>
<td>Q-9B</td>
</tr>
<tr>
<td>E88S016</td>
<td>Q-9B</td>
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</table>

**Number of kitchens not heated.**

<table>
<thead>
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<th>Room Code</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNW V033</td>
<td>Q-18</td>
</tr>
<tr>
<td>R85M024</td>
<td>Q-6E</td>
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<tr>
<td>R85T034</td>
<td>Q-32</td>
</tr>
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<td>R86S011</td>
<td>Q-3H</td>
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<tr>
<td>E87S052</td>
<td>Q-10B</td>
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<td>E88S017</td>
<td>Q-10B</td>
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**Number of kitchens in living area.**

<table>
<thead>
<tr>
<th>Room Code</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>E88S014</td>
<td>Q-5B</td>
</tr>
<tr>
<td>E87S016</td>
<td>Q-5B</td>
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**Number of kitchens in conditioned zone.**

<table>
<thead>
<tr>
<th>Room Code</th>
<th>Quantity</th>
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<tr>
<td>RI45008</td>
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**Number of kitchens in unconditioned zone.**

<table>
<thead>
<tr>
<th>Room Code</th>
<th>Quantity</th>
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<tr>
<td>RI45009</td>
<td>Q-13H</td>
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BUILDING SUMMARY

Room Breakdowns-Living Rooms

Number of living rooms.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
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<tbody>
<tr>
<td>PNW_V027</td>
<td>Q-18</td>
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<tr>
<td>R85M017</td>
<td>Q-5B</td>
</tr>
<tr>
<td>R85T027</td>
<td>Q-25</td>
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<tr>
<td>E87S012</td>
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<tr>
<td>E88S023</td>
<td>Q-4D</td>
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</table>

Number of living rooms at higher temperature.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
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<tbody>
<tr>
<td>E87S034</td>
<td>Q-8D</td>
</tr>
<tr>
<td>E88S025</td>
<td>Q-8D</td>
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Number of living rooms at lower temperature.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
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<tbody>
<tr>
<td>E87S044</td>
<td>Q-9D</td>
</tr>
<tr>
<td>E88S026</td>
<td>Q-9D</td>
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Number of living rooms not heated.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
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<tbody>
<tr>
<td>PNW_V027</td>
<td>Q-18</td>
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<tr>
<td>R85M018</td>
<td>Q-5B</td>
</tr>
<tr>
<td>R85T028</td>
<td>Q-26</td>
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<tr>
<td>R86S012</td>
<td>Q-3I</td>
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<tr>
<td>E87S054</td>
<td>Q-10D</td>
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<tr>
<td>E88S027</td>
<td>Q-10D</td>
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</table>

Number of living rooms in living area.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
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<tbody>
<tr>
<td>E88S024</td>
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</tr>
<tr>
<td>E87S018</td>
<td>Q-5D</td>
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</table>

Number of living rooms in conditioned zone.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>RI45002</td>
<td>Q-13A</td>
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Number of living rooms in unconditioned zone.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI45003</td>
<td>Q-13B</td>
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### BUILDING SUMMARY

#### Room Breakdowns-Other Large Rooms

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Level</th>
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<tbody>
<tr>
<td>Number of other large rooms.</td>
<td>PNW V044</td>
<td>Q-17</td>
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<tr>
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<td>R85M033</td>
<td>Q-5J</td>
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<tr>
<td></td>
<td>R85T043</td>
<td>Q-4J</td>
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<tr>
<td></td>
<td>E87S014</td>
<td>Q-4J</td>
</tr>
<tr>
<td></td>
<td>E88S053</td>
<td>Q-4J</td>
</tr>
<tr>
<td>Number of other large rooms at higher temperature.</td>
<td>E87S040</td>
<td>Q-8J</td>
</tr>
<tr>
<td></td>
<td>E88S055</td>
<td>Q-8J</td>
</tr>
<tr>
<td>Number of other large rooms at lower temperature.</td>
<td>E87S050</td>
<td>Q-9J</td>
</tr>
<tr>
<td></td>
<td>E88S056</td>
<td>Q-9J</td>
</tr>
<tr>
<td>Number of other large rooms not heated.</td>
<td>PNW V045</td>
<td>Q-18</td>
</tr>
<tr>
<td></td>
<td>R85M034</td>
<td>Q-6J</td>
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<td>R85T044</td>
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</tr>
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<td></td>
<td>E88S057</td>
<td>Q-10J</td>
</tr>
<tr>
<td>Number of other large rooms in living area.</td>
<td>E88S054</td>
<td>Q-5J</td>
</tr>
<tr>
<td></td>
<td>E87S024</td>
<td>Q-5J</td>
</tr>
<tr>
<td>Number of other large rooms in conditioned zone.</td>
<td>RI45024</td>
<td>Q-13W</td>
</tr>
<tr>
<td>Number of other large rooms in unconditioned zone.</td>
<td>RI45025</td>
<td>Q-13X</td>
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</table>
BUILDING SUMMARY

Room Breakdowns - Other Small Rooms

Number of other small rooms.  PNW_V042  Q-17
                          R85T041  Q-39
                          R85M031  Q-5I
                          E87S013  Q-4I
                          E88S048  Q-4I

Number of other small rooms at higher temperature.  E87S039  Q-8I
                                                       E88S050  Q-8I
Number of other small rooms at lower temperature.  E87S049  Q-9I
                                                       E88S051  Q-9I

Number of other small rooms not heated.  PNW_V043  Q-18
                                        R85T042  Q-40
                                        R85M032  Q-6I
                                        R86S013  Q-3J
                                        E87S059  Q-10I
                                        E88S052  Q-10I

Number of other small rooms in living area.  E88S049  Q-5I
                                                E87S023  Q-5I

Number of other small rooms in conditioned zone.  RI45022  Q-13U

Number of other small rooms in unconditioned zone.  RI45023  Q-13V

Number of utility rooms.  PNW_V040  Q-17

Number of utility rooms not heated.  PNW_V041  Q-18

Number of utility rooms in conditioned zone.  RI45020  Q-13S

Number of utility rooms in unconditioned zone.  RI45021  Q-13T
BUILDING SUMMARY

Structural Changes - additions/renovations

Any additions to living space in last two years? R85T011 Q-9
Who did construction of added living space in past two years? R85T012 Q-10
Are rooms added to living space in past two years heated? R85T013 Q-12
Have structural additions been made in last year? E87S061 Q-11
E88S059 Q-12
Types of rooms added to living space in past year? R85T013 Q-11
Bathroom added in past year? RI61005 Q-2C
Bedroom added in past year? RI61006 Q-2B
Dining room added in past year? RI61009 Q-2G
Family room added in past year? RI61004 Q-2A
Garage added in past year? RI61007 Q-2E
Kitchen added in past year? RI61008 Q-2F
Other rooms added in past year. RI61010 Q-2H
Description of other rooms added in past year. RI61011 Q-2H
Dwelling substantially renovated since occupied. PNW_V025 Q-16
Other structural changes since home was built. E88S090 Q-20E
Has any renovation work been done in past two years? R85T016 Q-14
What type of renovation work was done in the past two years? R85T018 Q-16
Who did the renovation work in the past two years? R85T017 Q-15
Renovations in past year. RI61024 Q-3
First motive for renovating. RI61044 Q-4U
Second motive for renovating. RI61045 Q-4U
Third motive for renovating. RI61046 Q-4U
FLOORS

Size - all floors

Floor area of building. FRC004
Area of all floors including basement. PNW_V473 Q-0T
Area or perimeter of floor section. RI43012 Q-16J
Perimeter of floor section. RI43006 Q-16D

Size - by space heating

Floor area in conditioned zone of building. FRC005
Area of floor in conditioned zone. RI44005 Q-11A
Area of floor in conditioned sub-zone. RI44006 Q-11B
Area of floor in unconditioned zone. RI44010 Q-11G
ELCAP Data at BPA
Building Cross-Reference

FLOORS

Size - first floor

How floor measurements were obtained. PNW_V474 Q-R1
Area of first floor. PNW_V469 Q-OT
First floor full or half. PNW_V433 Q-OB
Area of first floor unit X. PNW_V442 Q-OB
Length of first floor unit A. PNW_V434 Q-OB
Length of first floor unit B. PNW_V436 Q-OB
Length of first floor unit C. PNW_V438 Q-OB
Length of first floor unit D. PNW_V440 Q-OB
Width of first floor unit A. PNW_V435 Q-OB
Width of first floor unit B. PNW_V437 Q-OB
Width of first floor unit C. PNW_V439 Q-OB
Width of first floor unit D. PNW_V441 Q-OB
ELCAP Data at BPA
Building Cross-Reference

FLOORS

Size - second floor

Area of second floor. PNW_V470 Q-OT
Area of second floor unit X. PNW_V454 Q-OB
Second floor attic. PNW_V445 Q-OB
Second floor full or half. PNW_V444 Q-OB
Length of second floor unit A. PNW_V446 Q-OB
Length of second floor unit B. PNW_V448 Q-OB
Length of second floor unit C. PNW_V450 Q-OB
Length of second floor unit D. PNW_V452 Q-OB
Width of second floor unit A. PNW_V447 Q-OB
Width of second floor unit B. PNW_V449 Q-OB
Width of second floor unit C. PNW_V451 Q-OB
Width of second floor unit D. PNW_V453 Q-OB
FLOORS
Size - third floor
Area of third floor. PNW_V471 Q-OT
Area of third floor unit X. PNW_V466 Q-OB
Third floor attic. PNW_V457 Q-OB
Third floor full or half. PNW_V456 Q-OB
Length of third floor unit A. PNW_V458 Q-OB
Length of third floor unit B. PNW_V460 Q-OB
Length of third floor unit C. PNW_V462 Q-OB
Length of third floor unit D. PNW_V464 Q-OB
Width of third floor unit A. PNW_V459 Q-OB
Width of third floor unit B. PNW_V461 Q-OB
Width of third floor unit C. PNW_V463 Q-OB
Width of third floor unit D. PNW_V465 Q-OB
Area of other floors. PNW_V472 Q-OT
ELCAP Data at BPA
Building Cross-Reference

FLOORS

Thermal Properties

R-value of insulation in floor section. RI43011 Q-16I

Changes

Month structural addition completed. E87S063 Q-13A
E88S061 Q-14A

Year structural addition completed. E87S064 Q-13B
E88S062 Q-Y14B

Addition to floor space since home built. E88S087 Q-20B

Square feet of added living space in past two years. R85T011 Q-13

Insulation added above unheated basement in past two years? R85T048 Q-46

Addition of floor space in past year? RI61003 Q-1

Square feet added in past year. RI61002 Q-2I
E87S062 Q-12
E88S060 Q-13

Added floor insulation in last year. RI61021 Q-2R
E87S124 Q-20C
E88S109 Q-21S

R-value of floor insulation added in past year. RI61022 Q-2S

Added floor insulation since home built. E88S110 Q-21T

Floor insulation recommended by audit. PNW_V092 Q-30A

Floor insulation added after audit. PNW_V093 Q-30B

Floor insulation added since May 1980. PNW_V094 Q-31AB
<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Q</th>
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<tbody>
<tr>
<td>Is a vapor barrier present in the floor section.</td>
<td>RI43007</td>
<td>Q-16E</td>
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<tr>
<td>Material used for insulation in floor section.</td>
<td>RI43009</td>
<td>Q-16G</td>
</tr>
<tr>
<td>Thickness of insulation in floor section.</td>
<td>RI43010</td>
<td>Q-16H</td>
</tr>
<tr>
<td>Type of insulation in floor section.</td>
<td>RI43008</td>
<td>Q-16F</td>
</tr>
<tr>
<td>What percent of floor above unheated basement is insulated.</td>
<td>R85T047</td>
<td>Q-45</td>
</tr>
<tr>
<td>Percent of area above basement insulated.</td>
<td>PNW_V141</td>
<td>Q-38</td>
</tr>
<tr>
<td>Number of floors in living area.</td>
<td>PNW_V408</td>
<td>Q-0-5</td>
</tr>
<tr>
<td>Number of floors in living area completely below ground.</td>
<td>PNW_V409</td>
<td>Q-0-6</td>
</tr>
<tr>
<td>Number of floors in living area partly below ground.</td>
<td>PNW_V410</td>
<td>Q-0-7</td>
</tr>
<tr>
<td>If building with more than 2 units, floor the unit is on.</td>
<td>PNW_V411</td>
<td>Q-0-8</td>
</tr>
<tr>
<td>Number of units on second floor.</td>
<td>PNW_V455</td>
<td>Q-0B</td>
</tr>
<tr>
<td>Number of units on the first floor.</td>
<td>PNW_V443</td>
<td>Q-0B</td>
</tr>
<tr>
<td>Number of units on third floor.</td>
<td>PNW_V467</td>
<td>Q-0B</td>
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</tbody>
</table>
WALLS

Size - including windows and doors

Gross area of wall(s). RI46011 Q-7J

Size - excluding windows and doors

Net area of wall(s). RI46013 Q-7L
Wall area with south exposure. FRC026
Wall area with southeast exposure. FRC030
Wall area with southwest exposure. FRC028

Size - windows and doors

Window and door area of wall(s). RI46012 Q-7K

Insulation

Insulation material in wall(s). RI46008 Q-7G
Insulation thickness in wall(s). RI46009 Q-7H
Type of insulation in wall(s). RI46007 Q-7F
Percent insulation in outside walls. PNW_V131 Q-32
R85T019 Q-17
Percent of walls insulated in heated basement. PNW_V143 Q-40
WALLS

Thermal Properties

Insulation R-value in wall(s).  
R-value of outside wall insulation.  

Changes

Addition of new interior walls since home built.  
Removal of existing walls since home built.  
Number of wall renovations in past year.  
R-value of wall renovations in past year.  
Added wall insulation since home built.  
Insulation added to outside walls in past two years?  

Added wall insulation in past year.  
R-value of wall insulation added in past year.  
Added insulation to walls in heated basement in past year.  
Outside wall insulation recommended by audit.  
Outside wall insulation added after audit.  
Outside wall insulation added since May 1980.  

ELCAP Data at BPA  
Building Cross-Reference

RI46010 Q-7I  
R85T021 Q-19  

E88S088 Q-20C  
E88S089 Q-20D  
RI61039 Q-4P  
RI61040 Q-4Q  
E88S108 Q-21R  
R85T020 Q-18  

PNW_V132 Q-33  
R16I019 Q-2P  
E87S123 Q-20B  
E88S107 Q-21Q  

RI61020 Q-2Q  
PNW_V144 Q-41  
PNW_V086 Q-30A  
PNW_V087 Q-30B  
PNW_V088 Q-31AB
# ELCAP Data at BPA
## Building Cross-Reference

**WALLS**

**Miscellaneous**

<table>
<thead>
<tr>
<th>Description</th>
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<th>Type</th>
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<tbody>
<tr>
<td>Direction faced by wall(s).</td>
<td>RI46006</td>
<td>Q-7E</td>
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<tr>
<td>Outside finish of walls.</td>
<td>RI46004</td>
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<tr>
<td>Outside wall primarily aluminum siding.</td>
<td>PNW_V417</td>
<td>Q-0-9</td>
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<tr>
<td>Outside wall primarily brick.</td>
<td>PNW_V413</td>
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<tr>
<td>Outside wall primarily composition siding.</td>
<td>PNW_V419</td>
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<td>Outside wall primarily concrete.</td>
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<td>Outside wall primarily glass.</td>
<td>PNW_V420</td>
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<tr>
<td>Outside wall primarily other.</td>
<td>PNW_V421</td>
<td>Q-0-9</td>
</tr>
<tr>
<td>Outside wall primarily steel siding.</td>
<td>PNW_V418</td>
<td>Q-0-9</td>
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<tr>
<td>Outside wall primarily stone.</td>
<td>PNW_V414</td>
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</tr>
<tr>
<td>Outside wall primarily stucco.</td>
<td>PNW_V416</td>
<td>Q-0-9</td>
</tr>
<tr>
<td>Outside wall primarily wood.</td>
<td>PNW_V412</td>
<td>Q-0-9</td>
</tr>
</tbody>
</table>
WINDOWS

Size - all windows including sash

Area of window section. \quad \text{RI47012} \quad \text{Q-5J}

Size - all windows excluding sash

Net area of windows facing south. \quad \text{FRC027}
Net area of windows facing southeast. \quad \text{FRC031}
Net area of windows facing southwest. \quad \text{FRC029}

Insulation

Are most windows covered with plastic? \quad \text{PNW_V151} \quad \text{Q-46}
Percent of windows covered with plastic. \quad \text{PNW_V155} \quad \text{Q-47}
Are most windows insulated or made of thermopane? \quad \text{PNW_V149} \quad \text{Q-46}
Percent of windows insulated or made of thermopane. \quad \text{PNW_V153} \quad \text{Q-47}
Are most windows storm windows? \quad \text{PNW_V150} \quad \text{Q-46}
Percent of windows classified as 'storm'. \quad \text{PNW_V154} \quad \text{Q-47}
Are most windows described by 'other' category? \quad \text{PNW_V152} \quad \text{Q-46}
Percent of windows described as 'other'. \quad \text{PNW_V156} \quad \text{Q-47}
Do windows have more than single pane glass? \quad \text{R85T054} \quad \text{Q-52}
Do you use plastic over windows in the winter? \quad \text{R85T056} \quad \text{Q-54}
Do you use storm windows in the winter? \quad \text{R85T055} \quad \text{Q-53}
Type of caulking in window section. \quad \text{RI47011} \quad \text{Q-51}
Type of storm window(s) in window section. \quad \text{RI47007} \quad \text{Q-5E}
Type of weatherstripping in window section. \quad \text{RI47010} \quad \text{Q-5H}
## ELCAP Data at BPA
### Building Cross-Reference

**WINDOWS**

**Changes - additions/replacements**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replaced windows in the past year.</td>
<td>E88S091</td>
<td>Q-21A</td>
</tr>
<tr>
<td>Replaced windows since home built.</td>
<td>E88S092</td>
<td>Q-21B</td>
</tr>
<tr>
<td>Area of windows added in past year.</td>
<td>RI61014</td>
<td>Q-2K</td>
</tr>
<tr>
<td>Number of windows added in past year.</td>
<td>RI61013</td>
<td>Q-2J</td>
</tr>
<tr>
<td>Installed double/triple pane windows in last year.</td>
<td>E87S126</td>
<td>Q-20E</td>
</tr>
<tr>
<td>Added storm windows since home built.</td>
<td>E88S102</td>
<td>Q-21L</td>
</tr>
<tr>
<td>Added storm windows in past year.</td>
<td>E88S101</td>
<td>Q-21K</td>
</tr>
<tr>
<td>Installed storm windows in last year.</td>
<td>E87S125</td>
<td>Q-20D</td>
</tr>
<tr>
<td>Number of storm window renovations in past year.</td>
<td>RI61028</td>
<td>Q-4D</td>
</tr>
<tr>
<td>Storm windows recommended by audit.</td>
<td>PNW_V101</td>
<td>Q-30A</td>
</tr>
<tr>
<td>Storm windows added after audit.</td>
<td>PNW_V102</td>
<td>Q-30B</td>
</tr>
<tr>
<td>Storm windows added since May 1980.</td>
<td>PNW_V103</td>
<td>Q-31AB</td>
</tr>
<tr>
<td>Plastic over windows recommended by audit.</td>
<td>PNW_V104</td>
<td>Q-30A</td>
</tr>
<tr>
<td>Plastic over windows added after audit.</td>
<td>PNW_V105</td>
<td>Q-30B</td>
</tr>
<tr>
<td>Plastic over windows added since May 1980.</td>
<td>PNW_V106</td>
<td>Q-31AB</td>
</tr>
</tbody>
</table>
ELCAP Data at BPA
Building Cross-Reference

WINDOWS

Changes - renovating/weatherizing

Caulking recommended by audit. \hspace{1cm} PNW_V116 Q-30A
Caulking added after audit. \hspace{1cm} PNW_V117 Q-30B
Caulking added since May 1980. \hspace{1cm} PNW_V118 Q-31AB
Weatherstriped windows in past year. \hspace{1cm} E88S097 Q-21G
Weatherstriped windows since home built. \hspace{1cm} E88S098 Q-21H
Weatherstriped windows added after audit. \hspace{1cm} PNW_V114 Q-30B
Weatherstriped windows since May 1980. \hspace{1cm} PNW_V115 Q-31AB
Weatherstripping windows recommended by audit. \hspace{1cm} PNW_V113 Q-30A
Number of window renovations in past year. \hspace{1cm} RI61025 Q-4A
Number of aluminum sash window renovations in past year. \hspace{1cm} RI61030 Q-4F
Number of double pane window renovations in past year. \hspace{1cm} RI61027 Q-4C
Number of single pane window renovations in past year. \hspace{1cm} RI61026 Q-4B
Number of wood sash window renovations in past year. \hspace{1cm} RI61029 Q-4E
WINNDS

Miscellaneous

Air space width in window section. RI47005 Q-5C
Type of window shading. RI47009 Q-5G
Amount of sill decay in window section. RI47015 Q-5M
Conditioned zone location of the window section. RI47014 Q-5L
Direction window section is facing. RI47008 Q-5F
Number of panes in window section. RI47004 Q-5B
Type of sash in window section. RI47006 Q-5D
Percent of area that is sash in the window section. RI47013 Q-5K
Type of window section. RI47003 Q-5A
CEILING/ROOF

Size

Area of roof section. RI41011 I Q-8I

Insulation

Percent of roof-ceiling-attic with insulation. PNW V133 Q-34
R85T022 Q-20
Type of insulation if roof section. RI41007 Q-8E
Insulation material in roof section. RI41008 Q-8F
Insulation thickness in roof section. RI41009 Q-8G
Type of vapor barrier in roof section. RI41006 Q-8D

Thermal Properties

Insulation R-value in roof section. RI41010 Q-8H
R-value of roof-ceiling-attic insulation R85T124 Q-22
ELCAP Data at BPA
Building Cross-Reference

CEILING/ROOF

Changes

Added attic insulation since home built. E88S106 Q-21P
Insulation added to roof-ceiling-attic in past two years? R85T023 Q-21
Added attic insulation in past year. E88S105 Q-210
Added roof-ceiling insulation in past year. E87S122 Q-20A
Added roof-ceiling-attic insulation in past year. PNW_V134 Q-35
Ceiling insulation added in past year. RI61017 Q-2N
R-value of ceiling insulation added in past year. RI61018 Q-20
RI61038 Q-40
Number of ceiling renovations in the past year. RI61037 Q-4N
Roof insulation recommended by audit. PNW_V089 Q-30A
Roof insulation added after audit. PNW_V090 Q-30B
Roof insulation added since May 1980. PNW_V091 Q-31AB

Miscellaneous

Type of ceiling in roof section. RI41004 Q-8B
Type of roofing material in roof section. RI41003 Q-8A
### FOUNDATION/BASMENT

**Size**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of basement in building.</td>
<td>PNW_V468</td>
<td>Q-0T</td>
<td></td>
</tr>
<tr>
<td>Area of basement unit X.</td>
<td>PNW_V431</td>
<td>Q-OB</td>
<td></td>
</tr>
<tr>
<td>Average depth below grade of the crawl space or basement floor.</td>
<td>RI54006</td>
<td>Q-27D</td>
<td></td>
</tr>
<tr>
<td>Perimeter of crawl space, slab, or basement.</td>
<td>RI54007</td>
<td>Q-27E</td>
<td></td>
</tr>
<tr>
<td>Length of basement unit A.</td>
<td>PNW_V423</td>
<td>Q-0B</td>
<td></td>
</tr>
<tr>
<td>Length of basement unit B.</td>
<td>PNW_V425</td>
<td>Q-0B</td>
<td></td>
</tr>
<tr>
<td>Length of basement unit C.</td>
<td>PNW_V427</td>
<td>Q-0B</td>
<td></td>
</tr>
<tr>
<td>Length of basement unit D.</td>
<td>PNW_V429</td>
<td>Q-0B</td>
<td></td>
</tr>
<tr>
<td>Width of basement unit A.</td>
<td>PNW_V424</td>
<td>Q-0B</td>
<td></td>
</tr>
<tr>
<td>Width of basement unit B.</td>
<td>PNW_V426</td>
<td>Q-0B</td>
<td></td>
</tr>
<tr>
<td>Width of basement unit C.</td>
<td>PNW_V428</td>
<td>Q-0B</td>
<td></td>
</tr>
<tr>
<td>Width of basement unit D.</td>
<td>PNW_V430</td>
<td>Q-0B</td>
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</tbody>
</table>

**Insulation**

<table>
<thead>
<tr>
<th>Description</th>
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<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation on perimeter of crawl space, basement or slab?</td>
<td>RI54008</td>
<td>Q-27F</td>
<td></td>
</tr>
<tr>
<td>Is there a vapor barrier between the conditioned space of the house and the ground?</td>
<td>RI54010</td>
<td>Q-27H</td>
<td></td>
</tr>
</tbody>
</table>

**Thermal Properties**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-value of perimeter insulation in crawl space, basement or slab.</td>
<td>RI54009</td>
<td>Q-27G</td>
<td></td>
</tr>
</tbody>
</table>

**Changes**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Added insulation above unheated basement in past year?</td>
<td>PNW_V142</td>
<td>Q-39</td>
<td></td>
</tr>
<tr>
<td>Basement finished since home built?</td>
<td>E88S086</td>
<td>Q-20A</td>
<td></td>
</tr>
</tbody>
</table>
ELCAP Data at BPA
Building Cross-Reference

FOUNDATION/BASEMENT

Miscellaneous

Foundation includes a basement.  
PNW_V135  Q-36  
R85T045  Q-43

Percent of basement heated.  
PNW_V140  Q-37  
R85T046  Q-44

Number of units in the basement.  
PNW_V432  Q-0B

Basement half or full.  
PNW_V422  Q-0B

Foundation includes a concrete slab.  
PNW_V138  Q-36

Foundation includes an enclosed crawlspace.  
PNW_V136  Q-36

Foundation includes an open crawlspace.  
PNW_V137  Q-36

Foundation includes other type foundation.  
PNW_V139  Q-36

General type of building foundation.  
RI54003  Q-27A

Material comprising building foundation.  
RI54004  Q-27B

Vent area of the crawl space.  
RI54011  Q-27I

Earth or shrubs in contact with foundation?  
RI54005  Q-27C
DOORS

Size - all door types

Area of door(s). RI42011 Q-6J

Size - glass area

Glass area of door(s). RI42012 Q-6K

Insulation

Type of caulking in door(s). RI42009 Q-6H
Type of storm door(s). RI42010 Q-6I
Type of weatherstripping in door(s). RI42008 Q-6G

Thermal Properties

Estimate r-value of door(s). RI42013 Q-6L

Changes - additions/replacements

Number of doors added in past year. RI61015 Q-2L
Area of doors added in past year. RI61016 Q-2M
Added storm doors since home built. E88S104 Q-21N
Added storm doors in past year. E88S103 Q-21M
Storm doors added after audit. PNW_V099 Q-30B
Storm doors recommended by audit. PNW_V098 Q-30A
Storm doors added since May 1980. PNW_V100 Q-31AB
Replaced doors since home built. E88S094 Q-21D
Replaced doors in past year. E88S093 Q-21C
DOORS

Changes - renovating/weatherizing

Number of door renovations in past year. RI61031 Q-4G
Number of sliding glass door renovations in past year. RI61032 Q-4H
Number of storm door renovations in past year. RI61034 Q-4K
Number of other door renovations in past year. RI61035 Q-4L
Description of other door renovations in past year. RI61036 Q-4M
Number of door insulations in past year. RI61033 Q-4I
Weatherstripped doors in past year. E88S099 Q-21I
Weatherstripped doors since home built. E88S100 Q-21J

Miscellaneous

Number of doors connecting heated and unheated areas. PNW_V145 Q-42
Number of outside doors excluding sliding glass. R85T050 Q-48
# sliding glass doors connecting heated & unheated areas. PNW_V147 Q-44
# sliding glass doors with more than single pane. R85T052 Q-50
Number of sliding glass doors with more than single pane. R85T053 Q-51
Number of sliding glass doors with insulated glass. PNW_V148 Q-45
Number of outside doors with storms installed in winter. R85T051 Q-49
Number of storm doors connecting heated and unheated areas. PNW_V146 Q-43
Composition of core in door(s). RI42004 Q-6B
Direction door is facing. RI42007 Q-6F
Exterior finish of door(s). RI42003 Q-6A
Type of framing in door(s). RI42005 Q-6C
DUCTING

Size-Insulation-Thermal Properties

Type of duct/pipe insulation.  

Length of insulated pipes/ducts in unconditioned areas.  

Length of pipes/ducts in unconditioned areas.  

R-value of pipe/duct insulation.  

Changes

Heating duct insulation added after audit.  

Heating duct insulation added since May 1980.  

Heating duct insulation recommended by audit.  

Miscellaneous

Building zone(s) where pipes or ducts are located.  

Duct joints taped or sealed?  

Heating or cooling identifier code for HVAC system connected to ducts/pipes.  

Type of duct or pipe associated with HVAC equipment.
CONSUMER BEHAVIOR/ATTITUDES

Energy Efficiency

Perceived energy efficiency of the home.  

It is hard to make home energy efficient.

Miscellaneous

How would you reduce your electric bill?  
Window(s) open in bedroom while sleeping?

Audit and weatherization

Estimated time when home was last inspected by energy professional.

First conservation step taken due to energy inspection.
First conservation step taken due to own initiative.
Greatest motive for participating in energy conservation program.

Has an energy audit of home been conducted.
Has energy professional inspected your home?
Heard of federal tax credit for home weatherization.
Heard of low interest loan for home weatherization.
Heard of state tax benefit for home weatherization.
How did you know of the energy inspection program?
Energy Inspection representative.
Likelihood of energy audit of home in the future.
CONSUMER BEHAVIOR/ATTITUDES

Audit and weatherization (cont'd)

Made use of federal tax credit for home weatherization. PNW_V075 Q-24
Made use of low interest loan for home weatherization. PNW_V079 Q-24
Made use of state tax benefit for home weatherization. PNW_V077 Q-24
Month home was last inspected by energy professional. PNW_V082 Q-27
Year home was last inspected by energy professional. PNW_V083 Q-27
Second conservation step taken due to own initiative. R85T107 Q-101
Were conservation steps taken due to own initiative. R85T105 Q-99
When was first energy inspection conducted? R85T100 Q-95A
When was second energy inspection conducted? R85T101 Q-95B
Who conducted the energy inspection of your home? R85T102 Q-96