

**EXHIBIT NO. ____ (MBM-19)
DOCKETS UE-151871/UG-151872
PSE EQUIPMENT LEASING SERVICE
WITNESS: MALCOLM B. MCCULLOCH**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

**Dockets UE-151871
UG-151872**

**TWELFTH EXHIBIT (NONCONFIDENTIAL) TO THE
PREFILED REBUTTAL TESTIMONY OF
MALCOLM B. MCCULLOCH
ON BEHALF OF PUGET SOUND ENERGY**

JULY 1, 2016

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Docket Nos. UE-151871 UG-151872
Puget Sound Energy's
Electric and Natural Gas Equipment Lease Service**

SMACNA DATA REQUEST NO. 030

SMACNA DATA REQUEST NO. 030:

RE: Customer Surveys

Besides any surveys referenced in DRs 028 and 029, has PSE conducted any other, more recent surveys or other studies regarding consumer interest in leasing HVAC or water heater equipment? If so, please provide the same information for them as is requested in DR 028.

Response:

Puget Sound Energy ("PSE") objects to SMACNA Data Request No. 030 as unduly burdensome because it seeks information already in the possession of, obtainable by, or otherwise available to SMACNA. Without waiving such objections, and subject thereto, PSE responds as follows:

Please see pages 4 through 8 of the Prefiled Direct Testimony of Malcolm B. McCulloch, Exhibit No. ____ (MBM-1T), which provides detail regarding the survey conducted in January of 2016 on behalf of PSE by Cocker Fennessy, as well as a summary of the results. Please also see the Third Exhibit to the Prefiled Direct Testimony of Malcolm B. McCulloch, Exhibit No. ____ (MBM-4), and the Second Exhibit to the Prefiled Direct testimony of Ahmad Faruqui Ph.D., Exhibit No. ____ (AF-3), which include the questions asked and associated data results.

Attached as Attachment A to PSE's Response to SMACNA Data Request No. 030, please find PDF and MS Excel files of survey questions PSE issued with regard to the offering of the optional equipment lease service, data captured and a summary of the results. This survey was conducted between December 31, 2015 and January 11, 2016, via an online survey, with an established PSE residential customer panel, as defined in PSE's Response to SMACNA Data Request No. 028.

Attachment A.01	December 31, 2015 Survey Questions
Attachment A.02	December 31, 2015 Survey Data
Attachment A.03	December 31, 2015 Survey Results Summary

Due to the large volume, Attachment A to PSE's Response to SMACNA Data Request No. 030 is provided in electronic format only.

**ATTACHMENT A to PSE's Response to
SMACNA Data Request No. 030**

Lease Acceleration Survey

Dec 31, 2015

Today's survey is about space heating and water heating equipment in your home and should take 5-7 minutes to complete.

Q 1 Do you own or rent your home?

Own/buying

Rent/lease

Other _____

Skip to Controls Section

Skip to Controls Section

Current equipment - Heating

Now please think about your home's heating equipment.

Q 2 What type of system do you use to heat the majority of your home?

Natural gas furnace

Electric furnace

Air source heat pump

Ductless heat pump ("mini split")

Zone or room heating (baseboard, wall heater, floor or ceiling)

Fireplace/wood stove

Other _____

Q 3 Approximately how long has your heating equipment been in your home?

Less than 5 years

6-10 years

11-15 years

16-20 years

More than 20 years

Not sure

Q 4 How do you typically maintain and service your heating equipment? (Cleaning, inspecting, etc.)

I maintain it myself

I hire a service professional to maintain it

I don't typically maintain it [Skip to Q 6]

Q 5 How often do you typically maintain and service your heating equipment?

More than once a year

Once a year

Once every 2 years

Less than once every 2 years

Rarely

Not Sure

[If Q 3="less than 5 years", skip to Q 10]

Q 6 How likely are you to buy new heating equipment for your home in the next 5 years?

Extremely unlikely

Unlikely

Neutral **[Skip to Q 8]**

Likely **[Skip to Q 8]**

Extremely likely **[Skip to Q 8]**

Q 7 Why aren't you likely to buy new heating equipment in the next 5 years? (Select all that apply)

I plan to purchase, but not in the next 5 years

I'll only purchase when the existing unit needs to be replaced

My home isn't suitable for this equipment

My home uses a shared central system

I don't understand what it is

Can't afford upfront cost

Don't want to take out loan or finance it

Don't want to pay with credit card

Other _____

**[If Q 2="natural gas furnace", ask Q 8. (Asking those with gas furnaces about leasing)
Otherwise, skip to Q 10]**

Q 8 Instead of purchasing space heating equipment, imagine you were given the option to lease the equipment.

For a natural gas furnace, you would pay a monthly fixed all-inclusive charge of \$60/month with no upfront costs. These monthly charges would cover the cost of the equipment, installation, permitting fees, and future maintenance and repair costs.

The lease would include:

- No upfront cost
- Energy efficient equipment
- Maintenance every 2 years
- Equipment repairs throughout the lease term
- Covered by a 10-year warranty
- 24-hour customer service
- The ability to transfer the lease when you sell your home
- At lease end, option to own the water heater or replace with new equipment and a new lease

The lease duration would be 17 years (204 months) at an estimated monthly charge of \$60/month. This is compared to buying a furnace for an approximate out-of-pocket installed cost of \$4,750 and paying for maintenance at \$150 per visit.

Q 9 In the next five years, how likely would you be to lease a new furnace given the lease program described above?

Extremely unlikely

Unlikely

Neutral

Likely

Extremely likely

Current equipment – Water Heater

Now please think about your home's water heating equipment.

Q 10 What type of water heater do you have in your home?

- Electric tank
- Natural gas tank
- Propane/LP gas tank
- Tankless
- Other _____

Q 11 Approximately how long has your current water heater been in your home?

- Less than 5 years
- 6-10 years
- 11-15 years
- 16-20 years
- More than 20 years
- Not sure

Q 12 How do you typically maintain and service your water heater?

- I maintain it myself
- I hire a service professional to maintain it
- I don't typically maintain it [Skip to Q 14]

Q 13 How often do you typically maintain and service your water heater?

- More than once a year
- Once a year
- Once every 2 years
- Less than once every 2 years
- Rarely
- Not sure

[If Q 11="less than 5 years", skip to Q 18]

Q 14 How likely are you to buy a new water heater for your home in the next 5 years?

- Extremely unlikely
- Unlikely
- Neutral **Skip to Q 16**
- Likely **Skip to Q 16**
- Extremely likely **Skip to Q 16**

Q 15 Why aren't you likely to buy a new water heater in the next 5 years? (Select all that apply)

- I plan to purchase, but not in the next 5 years
- I'll only purchase when the existing unit needs to be replaced
- My home isn't suitable for this equipment
- My home uses a shared central system
- I don't understand what it is
- Can't afford upfront cost
- Don't want to take out loan or finance it
- Don't want to pay with credit card
- Other _____

**[If Q 10="electric tank" or "gas tank", ask Q 16 - Q 17.
Otherwise, skip to Q 18]**

Q 16 Instead of *purchasing* water heating equipment, imagine you were given the option to *lease* it.

For a tank-style water heater (up to 50 gallons), you would pay a monthly fixed all-inclusive charge of \$18/month with no upfront costs. These monthly charges would cover the costs of the upfront equipment, installation, permitting fees, and future maintenance and repair costs.

The lease would include:

- No upfront cost
- Energy efficient equipment
- Maintenance in years 6 and 15
- Equipment repairs throughout the lease term
- Covered by 6-year warranty
- 24-hour customer service
- The ability to transfer the lease when you sell your home
- At lease end, option to own the water heater or replace with new equipment and a new lease

The contract duration would be 15 years (180 months) at an estimated monthly charge of \$18/month. This is compared to buying a water heater for an approximate out-of-pocket installed cost of \$1,050 and paying for maintenance at \$200 per visit.

Q 17 In the next five years, how likely would you be to *lease* a new water heater given the lease program described above?

- Extremely unlikely
- Unlikely
- Neutral
- Likely
- Extremely likely

Controls/Connectivity

We have one last idea we'd like your feedback on.

Imagine being able to connect WiFi-enabled heating or water heating equipment to your home's WiFi network. This can improve energy efficiency and provide many additional benefits, including;

- Adjust the temperature remotely from your computer, tablet or smart phone
- Remotely set the equipment to cost-saving "Vacation Mode"
- Receive leak detection alerts on your mobile device in the event water is detected outside your water heater
- Monitor your equipment's performance and receive alerts if anything is not working or is working sub-optimally
- Receive time-saving error codes to speed up service calls in the event service is needed

[Rotate blocks Q 18/Q 19 and Q 20/Q 21]

Q 18 How interested would you be in being able to control your *heating equipment* remotely as described above?

Not at all interested

Not very interested

Somewhat interested [Skip to Q 20]

Very interested [Skip to Q 20]

Q 19 Why wouldn't you be interested in these features for your heating equipment?

Q 20 How interested would you be in being able to control your *water heater* remotely as described above?

Not at all interested

Not very interested

Somewhat interested [Skip to Q 22]

Very interested [Skip to Q 22]

Q 21 Why wouldn't you be interested in these features for your water heater?

Q 22 The next question about allows us to compare responses across income levels. Please be assured that the response you provide is kept completely confidential and results are reported using the average, or pooled answers to the questions, instead of the response of any one individual.

Which of the following categories best describes your *total household* income, before taxes? Please include the income of all of the people living in your home in this figure.

Less than \$75,000 **Skip to Q 23**

\$75,000 or more **Skip to Q 24**

Not sure **Skip to end**

Prefer not to answer **Skip to end**

Q 23 Which category best fits your total household's income?

Less than \$20,000

\$20,000 to \$24,999

\$25,000 to \$29,999
\$30,000 to \$34,999
\$35,000 to \$39,999
\$40,000 to \$44,999
\$45,000 to \$49,999
\$50,000 to \$74,999
Not sure
Prefer not to answer

Q 24 Which category best fits your total household's income?

\$75,000 to \$99,999
\$100,000 to \$124,999
\$125,000 to \$149,999
\$150,000 to \$199,999
\$200,000 to \$249,999
\$250,000 or higher
Not sure
Prefer not to answer

Lease Solutions – Customer
Survey Summary



January 22, 2016

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Methodology

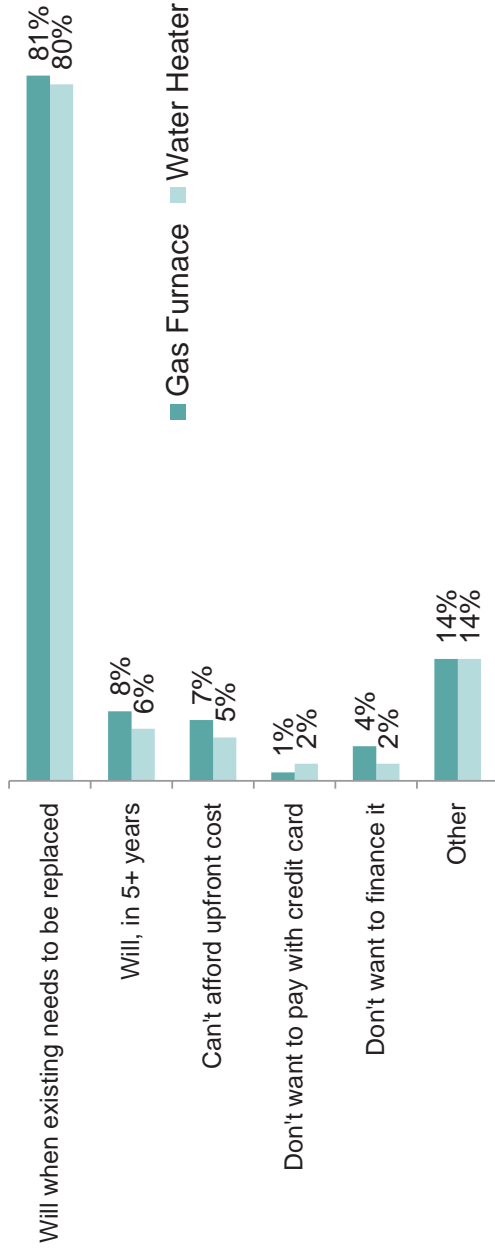
- 1,978 PSE residential Research Panelists were invited to complete an online survey about their likelihood to buy new space and water heat equipment as well as their likelihood to lease this equipment.
- 1,381 respondents completed the survey from December 31, 2015 – January 11, 2016. Average survey time was 4 minutes
- Survey Objectives
 - Reasons for not replacing equipment
 - Likelihood to lease rather than purchase equipment in the next 5 years
 - Frequency of maintaining equipment
 - Interest in connectivity of equipment, allowing remote control and alerts

Summary

- 80% of market waiting for equipment to fail before considering replacement
- Equipment maintenance is not a standard practice
 - Water heaters aren't regularly maintained
 - Furnaces are maintained more frequently, at least every two years
- Connected equipment shows potential
 - Over half said they were somewhat or very interested
 - Security/privacy concerns or already having a programmable thermostat cited as reasons for no interest

Most wait to replace equipment upon failure

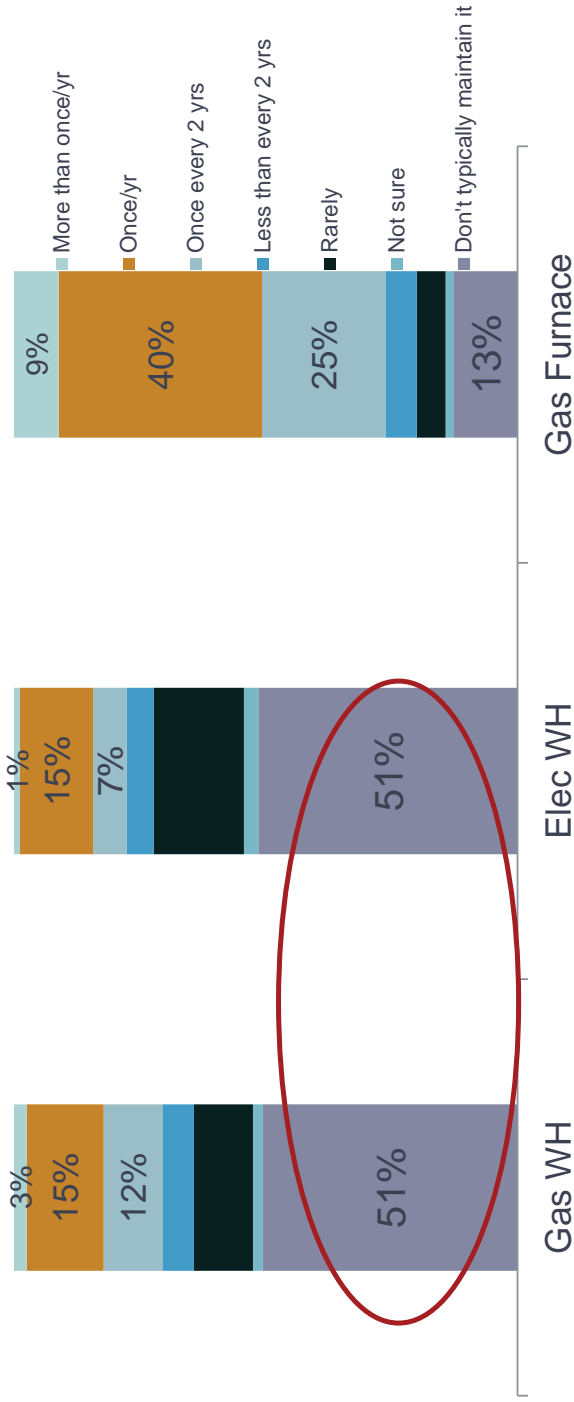
Reasons for not buying in next 5 years



- Most say they're not buying in the next five years because they're waiting for their equipment to fail
- Upfront cost is a barrier
- "Other" reasons included "moving soon" and "equipment is still new"

Equipment maintenance is not standard

How often do you maintain your equipment? (Among homeowners)



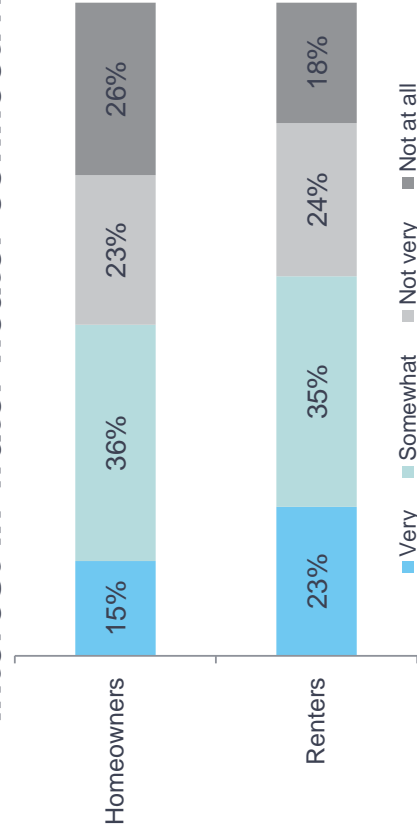
- Half say they don't typically maintain their water heater, potentially diminishing performance
- Furnaces are more regularly maintained, usually by a HVAC professional



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Connectivity shows potential

Interest in water heater connectivity

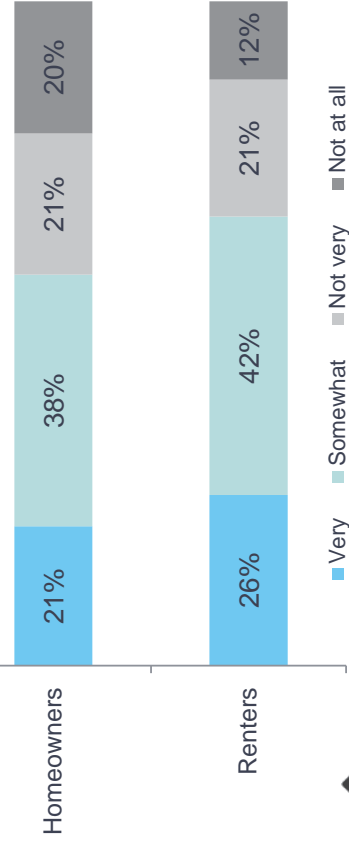


Over half are interested in Wi-Fi enabled connectivity, especially for space heat

Reasons for not being interested tended to follow a few themes:

- Have no need for remote connectivity
- Privacy/security concerns
- Already have a programmable thermostat
- No need to control water heater setting

Interest in space heat connectivity



Space/Water Heat Connectivity

- Imagine being able to connect Wi-Fi-enabled heating or water heating equipment to your home's Wi-Fi network. This can improve energy efficiency and provide many additional benefits, including:
- Adjust the temperature remotely from your computer, tablet or smart phone
 - Remotely set the equipment to cost-saving "Vacation Mode"
 - Receive leak detection alerts on your mobile device in the event water is detected outside your water heater
 - Monitor your equipment's performance and receive alerts if anything is not working or is working sub-optimally
 - Receive time-saving error codes to speed up service calls in the event service is needed



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