

Appendix A. Glossary

- **aMW:** Average megawatts.
- **Energy Factor (EF):** Overall efficiency rating of a water heater; the higher the EF, the more efficient the model.
- **Energy Star:** U.S. government-backed program helping businesses and individuals protect the environment through superior energy efficiency.
- **High Efficiency Water Heater:** Also referred to as **alternative** water heater; water heating units with a high efficiency rating and represent alternative technologies to a standard gas or electric tank water heater; examples include heat pump, tankless, solar, and hybrid water heater technologies.
- **Heat Pump Water Heater (HPWH):** water heater technology that uses heat pump technology to transfer heat from one zone to another to heat water; gain their efficiency by using electricity to move heat versus using the electricity to create it, resulting in EF as high as 3.0; also referred to as a **hybrid** water heater.
- **Hybrid Water Heater:** 1. Alternate name for a heat pump water heater. 2. A water heater that combines fuel sources or other technologies to improve efficiency and performance.
- **Indirect Water Heaters:** Water heater technology using a boiler as the heat source by circulating hot water from the boiler through a heat exchanger in a well-insulated water heater tank.
- **NAICS:** The North American Industry Classification System; the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.
- **NEEA:** Northwest Energy Efficiency Alliance.
- **NWPCC:** Northwest Power and Conservation Council.
- **SIC:** Standard Industrial Classification codes; four digit numerical codes assigned by the U.S. government to business establishments to identify the primary business of the establishment.
- **Tankless Water Heaters:** Water heating technology that heats water as it is used without storing the heated water in a tank; some **hybrid tankless** models have small one to three gallon tanks to deliver instant hot water while the unit heats cold water flowing through the system; also referred to as **on-demand**, **demand**, or **instantaneous** water heaters.

Appendix B. Bibliography

- "A Free Zip Code Database Latitude and Longitude." Last modified October 20, 2011. Accessed October 28, 2011. <http://federalgovernmentzipcodes.us/>.
- "A. O. Smith Corporation SWOT Analysis." *Datamonitor: A. O. Smith Corporation*. (2011): 1-9. <http://www.datamonitor.com>.
- "A. O. Smith Kicks Off High Efficiency Revolution Tour." *Reeves Journal: Plumbing, Heating, Cooling* 91, no. 4 (2011): 22. <http://www.reevesjournal.com>.
- "A.O Smith Water Heaters Named 'Brand of Choice'." *Air Conditioning Heating & Refrigeration News* 203, no. 3 (1998): 85.
- "Bradford White Water Heaters." *Engineered Systems* 28, no. 7 (2011): 64.
- "Product Quality & Customer Support Key to Bradford White's Top Ranking." *Reeves Journal: Plumbing, Heating, Cooling* 91, no. 7 (2011): 50. <http://www.reevesjournal.com>.
- "Report Compares Propane Tankless to Electric Heat Pump Water Heaters." *Appliance Magazine.com*, September 29, 2011. <http://www.appliancemagazine.com/news.php?article=1522514&zone=0&first=1>.
- "Water Heaters: Cutting your hot-water bill just got easier." *Consumer Reports* 75, no. 10 (2010): 30-31. <http://www.consumerreports.org>.
- "2006 Water Heater survey." *Reeves Journal: Plumbing, Heating, Cooling* 86, no. 9 (2006): 38.
- "2007 Industry Statistics Sampler: NAICS 238220- Plumbing, heating, and air-conditioning contractors." *Census Bureau Home Page*. Accessed October 10, 2011. <http://www.census.gov/econ/industry/geo/g238220.htm>.
- "AirTap Products Impress Industry Leaders at ACEEE Hot Water Forum." *PRWeb*, June 13, 2011. <http://www.prweb.com/releases/2011/6/prweb8443738.htm>.
- "Alternative Energy: Pellet stoves and solar water heaters could take decades to pay off." *Consumer Reports*. (2009): 26-28. <http://www.consumerreports.org>.
- "Bradford White." *LP/Gas*, 71, no.7 (2011): 50.
- "Contractor Infocus." *Contractor Magazine* 54, no. 10 (2007): 1.
- "Downturn makes upscale harder sell at Lowe's." *Retailing Today*. 46. no. 11 (2007): 26.
- "Electric models lead water heater shipments." *Engineered Systems* 28, no.5 (2011): 71.

- “GE Geospring Heat Pump Water Heater (\$999.00 was \$1599.00) @ Lowe’s.” Accessed on September 6, 2011.
<http://www.dealitem.com/Deal/3540872/GE-Geospring-Heat-Pump-Water-Heater-999-00-w-as-1599-00.aspx>.
- “Heating and cooling equipment shipment numbers decline in May.” *LP/Gas* 69, no. 8 (2009): 19.
- “Home Depot Turns Copycat in Efforts to Stoke New Growth.” *Wall Street Journal*. 226. no. 100 (2000): A1.
- “January Air Conditioning Shipments Up, Water Heater Shipments Decline.” *Air Conditioning Heating & Refrigeration News* 242, no. 12 (2011): 10.
- “List of Company Identifications.” Accessed on September 27, 2011.
<http://waterheatertimer.org/Plumbing-appliance-company-identification.pdf>.
- “North American Furnace Shipments Up in March.” *Air Conditioning Heating & Refrigeration News* 240, no. 3 (2010): 4.
- “PSE Electric Customers Hit the Energy-Saving Lottery.” *Reuters*, September 22, 2011.
<http://www.reuters.com/article/2011/09/22/idUS196278+22-Sep-2011+BW20110922>.
- “U.S. HVAC Shipments Mostly Up in April.” *Appliance Magazine.com*, June 2, 2010.
<http://www.appliancemagazine.com/news.php?article=1401714&zone=0&first=1>.
- “Workshop Notes.” Presentation at NEEA Heat Pump Water Heater Workshop, Seattle, WA, May 25, 2011.
- A.O. Smith. “A.O. Smith Annual Report 2010.” Accessed October 9, 2011.
http://files.shareholder.com/downloads/AOS/1433554855x0x446615/36997F01-ACAA-4A9F-904E-17A81E6928D1/2010_AOS_Annual_Report.pdf.
- Air-Conditioning, Heating, and Refrigeration Institute. “Historical Statistical Data.” 2010.
<http://www.ahrinet.org/historical+data.aspx>.
- . “Historical Data.” Accessed on August 2, 2011. <http://www.ahrinet.org/historical+data.aspx>.
- . “Monthly Shipments.” Accessed on August 2, 2011. www.ahrinet.org/monthly+shipments.aspx.
- Amarnath, Ammi. “Heat Pump Water Heaters: EPRI Demonstration Project.” Presentation at NEEA Heat Pump Water Heater Workshop, Seattle, WA, May 25, 2011.
- American Council for an Energy-Efficient Economy. “Water Heating.” Last modified January, 2011.
<http://www.aceee.org/consumer/water-heating>.
- . “U.S. Sets First Regional Energy-saving Standards for ACs and Furnaces, Upgrades National Heat

- Pump Standards.” June 10, 2011.
<http://www.aceee.org/press/2011/06/us-sets-first-regional-energy-saving-standards-acs-and-f>
- Association of Home Appliance Manufacturers. “Annual Shipment Trends: Industrial Shipments of Major Home Appliances.” April 9, 2011.
- Bartels, Robert, Denzil Fiebig, and Aurther van Soest. "Consumers and experts: an econometric analysis of the demand for water heaters." *Empirical Economics* 31 (2006): 369-391.
- Beacon Consultants Network, Inc. “NEEA Report: European Heat Pump Water Heater Market.” BCN Inc., Hingham, MA, Rep. 40203, 2010.
- Carlton, Jim. “New Ways to Use Less Energy at Home.” *Wall Street Journal*. September 12, 2011. Accessed on September 12, 2011.
<http://online.wsj.com/article/SB10001424053111903461304576524391474712716.html>.
- Carpenter, Susan. “61% of Americans unaware of energy efficiency rebates, incentives” Last modified October 3, 2011. Accessed on October 6, 2001.
http://latimesblogs.latimes.com/home_blog/2011/10/energy-efficiency-rebates-incentives.html.
- Cassard, Hannah, Paul Denholm, and Sean Ong. “Break-even Cost for Residential Solar Water Heating in the United States: Key Drivers and Sensitivities.” NREL, Golden, CO. Rep. TP-6A20-48986, February 2011.
- Chinho, L., W. Wann-Yih, and W. Zhi-Feng. “A study of market structure: brand loyalty and brand switching behaviours for durable household appliances.” *International Journal of Market Research* 42, no. 3 (2000): 277-300.
- Deerr Allison. “Water Heaters Yesterday and Today.” *Reeves Journal: Plumbing, Heating, Cooling* 89, no. 4 (2009). <http://www.reevesjournal.com>.
- Desjardins, Doug. “Sears.” *Retailing Today*. 47. no. 10 (2008): 20.
- Dow Jones. “Water Heater Companies.” *Factiva* (2011). <http://www.dowjones.com/factiva>.
- Dumas, Erinn. AHRI. “AHRI Releases March 2011 U.S. Heating and Cooling Equipment Shipment Data.” March 2011. <http://www.ahrinet.org>.
- Economic Research Service. United States Department of Agriculture. “2003 Rural-urban Continuum Codes.” Accessed on September 1, 2011.
<http://www.ers.usda.gov/Data/RuralUrbanContinuumCodes/>.
- Electric Power Research Institute. “Center & Office Information.” September 1999.
- . “Energy Efficiency Demonstration: Heat Pump Water Heaters.” March 2011.

- Energy Extension Program. Washington State University. "Energy Efficiency Factsheet: Heat Pump Water Heaters- Residential. 2003. Accessed on October 4, 2011.
http://www.energy.wsu.edu/ftp-ep/pubs/building/res/ht_pmp_water_htrs.pdf
- Erasmus, A. C., M. M. Makgopa, and M. G. Kachale. "Inexperienced Consumers' Judgment of the Quality of Major Household Appliances." *Advances in Consumer Research- European Conference Proceedings*, 2006. 7648-658.
- Euromonitor. "Consumer Lifestyles in the US." Accessed on October 10, 2011.
<http://www.euromonitor.com/consumer-lifestyles-in-the-us/report>.
- Faloon, Kelly. "Look for the Energy Star Label." *Plumbing & Mechanical* 27, no. 7 (2009): 37-44.
- First Research Inc., "Industry Profile: Electrical, Plumbing & Hardware Wholesalers." September 19, 2011.
- . "Industry Profile: Plumbing & HVAC Contractors." September 19, 2011.
- Forecasting Division. Washington State Office of Financial Management. "Ranks of Cities and Towns by Population Size and Population Change with Change Due to Annexation." June 30, 2011.
<http://www.ofm.wa.gov/forecasting/>.
- . Washington State Office of Financial Management. "April 1 Housing Units By Structure Type: 2000-2010." June 30, 2011. <http://www.ofm.wa.gov/forecasting/>.
- . Washington State Office of Financial Management. "April 1 Population Density and Land Area by County." June 30, 2011. <http://www.ofm.wa.gov/forecasting/>.
- . Washington State Office of Financial Management. "April 1 Intercensal Estimates of Population and Housing for State, Counties, and Cities: 2000-2010." September 8, 2011.
<http://www.ofm.wa.gov/forecasting/>.
- Franco, Victor, Alex Lekov, Steve Meyers, and Virginie Letschert. "Heat pump water heaters and American homes: A good fit?" Paper presented at the 2010 ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, CA, August 15, 2010-August 20, 2010.
- Gale Cengage Learning. "Appliances: Water Heater Shipments and Forecasts." *RDS TableBase* (2011).
- Google. A search for "heat Pump Water Heater." Google Trends. Accessed July 14, 2011.
<http://www.google.com/trends>.
- . A search for "hybrid water heater, heat pump water heater." Google Insights for Search. Accessed August 19, 2011. <http://www.google.com/insights/search/>.
- . A search for "on demand water heater, demand water heater." Google Insights for Search.

- Accessed August 19, 2011. <http://www.google.com/insights/search/>.
- . A search for “tankless water heater, demand water heater.” Google Insights for Search. Accessed August 19, 2011. <http://www.google.com/insights/search/>.
- Gotaas, Mary. "Thawing conditions: Renewed housing activity will heat demand for new appliances." *IBISWorld Industry Report 33522* (2011). <http://www.ibisworld.com>.
- Green, Ed. "General Electric reaches application quota in first hour ." *Business First*, September 28, 2011.
<http://www.bizjournals.com/louisville/news/2011/09/28/general-electric-reaches-application.html>
- Gregory, K. “Rebate-inspired shoppers not in a water heater mood.” *USA Today*. November 15, 2010. http://www.usatoday.com/MONEY/usaedition/2010-11-16-appliances16_ST_U.htm.
- Guyette, James E. "Tankless water heaters: Technological advances and heavy advertising net word-of-mouth referrals." *LP/Gas*, January 2006: 29-31.
- Hamilton, Taylor. "Heating up: Renewed housing demand and energy-efficiency initiatives drive equipment sales." *IBISWorld Industry Report 33341* (2011). <http://www.ibisworld.com>.
- Hammerstrom, D. J. “Pacific Northwest GridWise Testbed Demonstration Projects: Olympic Peninsula Project.” PNNL, Richland, WA, Rep. PNNL-17167, 2007.
- Hayes, Sarah, Steven Nadel, Chris Granda, and Katherine Hottel. American Council for an Energy-Efficient Economy. “What Have We Learned from Energy Efficiency Financing Programs?” ACEEE, Washington. D.C., Rep. U115, 2011.
- Hiller, Carl C. Applied Energy Technology. “Heat Pump Water Heater Technology.”
http://apps1.eere.energy.gov/buildings/publications/pdfs/building_america/ns/b9_heat_pump.pdf
- Hong, S. “Differences in Consumer Behavior when Purchasing Life-Changing and Significant Products.” *International Journal of Business Research* 10, no.4 (2010): 145-158.
- Johnson, Katherine. Metering International. “A comparison of Two Utility Approaches to Promote Water Heating Energy Efficiency.” 2009.
- . Johnson Consulting Group. “Developing a Successful Water Heating Program.” Presentation at Demand-Side Management Technology Workshop: Advances in Water Heating, Bismarck, ND, May 26, 2010.
- Johnson, Katherine, David Hendershot, Rach Naleway, Mark Pope, George Willoughby, and Eddie Webster. “Staying out of Hot Water: Best Practices in Implementing Electric and Gas Water

- Heating Programs. Presentation at the 2010 ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, CA, August 16, 2010.
- KEMA. "Residential Water Heater Market." KEMA Inc., Oakland, CA, Prepared for NEEA, Rep. E06-158, 2006.
- Klein, Gary. California Energy Commission. "Saving Water and Energy in Residential Hot Water Distribution Systems." 2008.
- Kopp, Jim. "Tankless water heaters." *Consumer Reports*. 73. no. 10 (2008): 28-29.
<http://www.consumerreports.org>.
- Levine, Wendy. "Tech Topic: Tankless Water Heaters." *Reeves Journal: Plumbing, Heating, Cooling* 88, no. 1 (2008). <http://www.reevesjournal.com>.
- Lowe's Home Improvement. In *Facebook* [Profile Page]. Accessed on September 12, 2011.
<http://www.facebook.com/lowes>.
- Lowes. "Water Heater Reference Guide. Accessed on September 26, 2011.
<http://waterheatertimer.org/images/Water-heater-reference-guide.jpg>.
- Lu, N., D. J. Hammerstrom, S. Patrick. "Grid Friendly Device Model Development and Simulation." PNNL, Richland, WA, Rep. PNNL-18998, 2009.
- Mader, Robert. "Forum Mulls Better Uses of Hot Water." *Contractor Magazine* 58, 6 (2011): 3-8.
- Marketwire. "Grid Cloud Solutions Inc. Reports First Sales of Energy Conservation Leasing Program." *Sys-Con Media*, September 6, 2011. <http://www.sys-con.com/node/1968663>.
- Mateyka, P., & Marlay, M. 2010 U.S. Census Bureau. "The duration and tenure of residence, 1996 to 2009." Paper presented at the 2010 Joint Statistical Meetings, Vancouver, B.C., July 31-August 5, 2010.
- Mintel Marketing. "Retail Distribution and Supply Structure." *In Plumbing – US*. 2007.
- . "Who Does the Home Renovation Work?" *In Home Improvement – US*. 2011.
- Misonzhnik, Elaine. "Righting the Ship." *Retail Traffic*. 40. no. 3 (2011).
- Moin, David. "Sears Issues 1Q Outlook." *Women's Wear Daily*. 201. no. 91 (2011): 12.
- Niemeyer, S. "Consumer voices: adoption of residential energy-efficient practices." *International Journal of Consumer Studies* 34, no.2 (2010): 140-145.
- Northwest Energy Efficiency Alliance. "Standards Update- 2nd Quarter 2011." 2011.

- Olsen, Tommy. "Tech Topic: Hybrid Heat Pump Water Heaters." *Reeves Journal: Plumbing, Heating, Cooling* 91, no. 2 (2011): 36-37. <http://www.reevesjournal.com>.
- Pacific Gas and Electric Company. "Carbon Footprint Calculator Assumptions." Accessed on September 27, 2011. <http://www.pge.com/about/environment/calculator/assumptions.shtml>.
- Paul, D. D., V. V. Gadhari, D. P. Evers, M. E. Goshe, and D. A. Thornton. "Final report: Study on benefits of removal of Calcium water hardness (Calcium and Magnesium ions) from a water supply." Battelle Memorial Institute, Columbus, OH, 2010.
- Petrillo, Alan M. "Hot Water, Cool Benefits." *Reeves Journal: Plumbing, Heating, Cooling* 88, no. 9 (2008): 30. <http://www.reevesjournal.com>.
- . "Making Hot Water Green." *Reeves Journal: Plumbing, Heating, Cooling* 89, no. 9 (2009): 34-37. <http://www.reevesjournal.com>.
- Reeves Journal Staff. "Going Solar." *Reeves Journal: Plumbing, Heating, Cooling* 89, no. 3 (2009): 20-21. <http://www.reevesjournal.com>.
- Ripley, Kathleen. "In the pipeline: Renewed housing and commercial construction will get demand flowing." *IBISWorld Industry Report 23822b* (2011). <http://www.ibisworld.com>.
- . "Taking the heat: The housing market's recovery will fuel demand, despite wholesale bypass." *IBISWorld Industry Report 42372* (2011). <http://www.ibisworld.com>.
- Risk Management Association. "238220 - Plumbing, Heating, and Air-Conditioning Contractors." *RMA Annual Statement Studies* (2010).
- . "333414 - Heating Equipment (except Warm Air Furnaces) Manufacturing." *RMA Annual Statement Studies* (2010).
- . "423720 - Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers." *RMA Annual Statement Studies* (2010).
- Rominger, Dennis. "Energy Star Heat Pump Water Heating Program." Presentation at NEEA Heat Pump Water Heater Workshop, Seattle, WA, May 25, 2011.
- Roulo, Candace. "Increase your high-efficiency water heater knowledge." *Contractor Magazine*, June 2011, 30-32.
- Rudnick, Michael. "A crowded playing field; Lowe's and Home Depot continue to steal market shares for Sears." *HFN*. June 12, 2006: 26.
- Ryan, David, Ray Long, Daniel Lauf, Meredith Ledbetter, and Ari Reeves. U.S. Department of Energy. "Energy Star Water Heater Market Profile." 2010. <http://www.energystar.gov>.

- Sachs, Harvey, Jacob Talbot, and Nate Kaufman. American Council for an Energy-Efficient Economy. "Emerging Hot Water Technologies and Practices for Energy Efficiency as of 2011." ACEEE, Washington. D.C., Rep. A112, 2011.
- Sammer, K., & Wüstenhagen, R. "The influence of eco-labeling on consumer behaviour: results of a discrete choice analysis for washing machines." *Business Strategy & the Environment (John Wiley & Sons, Inc.)* 15, no. 3 (2006): 185-199.
- Savage, Chris, Adriana Stoica. U.S. Department of Commerce. "Full Report on Manufacturers' Shipments, Inventories and Orders." *U.S. census Bureau News*. March 2011.
- Smith, Michael. "Tankless water heater: They're efficient but not necessarily economical." *Consumer Reports*. (2008): 28-29. <http://www.consumerreports.org>.
- Storie, Jeff. "A. O. Smith Voltex Hybrid Unit Generates Immediate Savings." *Reeves Journal: Plumbing, Heating, Cooling* 91, no. 7 (2011): 42. <http://www.reevesjournal.com>.
- Swartz, Kimberly. "Water Heaters Sizzle with Opportunity." *Air Conditioning Heating & Refrigeration News* 241, no. 10 (2010): 12-16.
- Sweet, Jack. "Water Heaters get "Green"." *Reeves Journal: Plumbing, Heating, Cooling* 88, no. 4 (2008): 40. <http://www.reevesjournal.com>.
- Swope, Tobias. D&R International. "2009 ENERGY STAR Qualified Appliance Retail Sales Data." Accessed October 25, 2011. http://www.energystar.gov/index.cfm?c=manuf_res.pt_appliances.
- Thomas, Ed, and Katherine Johnson. Market Development Group, "The Future of Residential Electric Water Heating is Off-Peak." June 2007. <http://www.marketdevelop.com>.
- U.S. Department of Energy, "Energy Star Water Heater Market Profile and Program Design Guide." 2009. http://www.drintl.com/HtmlEmail/Water_Heater_Market_Profile_Sept2009.pdf
- . "Energy Savers: Heat Pump Water Heaters." Last modified February 9, 2011. http://www.energysavers.gov/your_home/water_heating/index.cfm/mytopic=12840.
- U.S. Environmental Protection Agency. "ENERGY STAR Qualified Whole Home Gas Tankless Water Heaters." Accessed October 27, 2011. http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=WH.
- Waiter, Kevin. "Heat Pump Water Heaters: Fact or Fiction." Presentation at NEEA Heat Pump Water Heater Workshop, Seattle, WA, May 25, 2011.
- Wilson, Richard. "White goods, growing market." *ElectronicsWeekly.com: Distribution World*. July

19, 2011.

<http://www.electronicweekly.com/blogs/parallel-processors/2011/07/white-goods-growing-market.html>.

Wolf, A. "TWICE/Campaigners Poll Shows Shoppers Choose Brand Over Price." *TWICE: This Week in Consumer Electronics* 20, no. 25 (2005): 18.

Appendix C. Considerations

During the course of conducting this research, we encountered and discovered the following considerations which impacted the outcome of this study:

- **Lack of participation in online dialogues.** Despite repeated and persistent attempts, our team had great difficulty engaging homeowners and professionals in an online discussion about water heaters. Even financial incentives did little to motivate participation; only a tiny number of engaged professionals proved willing to engage in extended online conversations on the topic. This offered one of many pieces of evidence that consumers rarely give water heaters any thought until they fail.
- **Small number of recent purchasers.** Because neither manufacturers nor utilities shared information with us, we relied on random phone and online surveys to find homeowners who had made a recent water heater purchase. But less than seven percent of all Northwest households buy a water heater in any year. Finding a robust sample of such a small group proved prohibitively expensive. To obtain 300 total phone survey responses, for example, we made 10,000 calls; a robust and representative sample of recent purchasers would have required roughly ten times that number. To compensate for the lack of quantitative data on recent purchasers, we conducted in-depth interviews with shoppers and homeowners, and gathered copious data from potential purchasers to help us characterize the consumer market.
- **Potential self-selection in online responses.** We recruited many of our online survey respondents from randomized survey panels. We also made our surveys available to the public at large, recruiting participants through a variety of online fora. In both cases, self-selection may have biased our survey responses. For the survey panels, the homeowners who were willing to complete the survey may have been particularly interested in certain water heating technologies. Among the general public, online participants may have been biased towards homeowners who are interested in energy efficiency and conservation. Thus, the responses from our online samples--recent purchasers in particular--might not be reflective of the Northwest population as a whole.
- **Lack of participation by major retailers.** Secondary research suggests that major national home improvement stores sell more water heaters than any other category of retailer. But because of increasing industry secrecy, the two largest Northwest chains, Home Depot and Lowe's, declined to give us even estimates of their water heater sales figures for the region. Our retail sample primarily represented smaller hardware stores and plumbing supply houses that sell both to consumers and installers; but without data from the top retailers, it is likely that our retail sample isn't representative of the retail market as a whole. We added the mystery shopping to replace the inability to conduct on site interviews with two of the three big box retailers. We conducted mystery shopping for installers at a home show, as many installers have no or a limited physical location.
- **Potential concentration in the installer market.** Our randomized phone survey of water heater installers identified many plumbing firms that install a small number of water heaters each year. But in some metropolitan markets, a relatively small number of firms installs a significant share of water heaters. When markets are concentrated in this way, randomized surveys tend to over-represent smaller firms, and may miss important information about the most prominent market actors.

- **Margins of error, inconsistent biases.** One of NEEA's goals with this study was to identify ways in which the Northwest water heater market had changed since its previous study. Yet the sample sizes for both this study and NEEA's 2006 study entailed significant margins of error. Similarly, the data collection methods and modalities used in the two studies may have biased results in different directions. Any direct comparisons between our study and the results of the 2006 study should be made with extreme caution.

Appendix D: Consumer Data Tables

Table H-01: Water Heater Fuel by Respondent Type

	Electric	Natural Gas	Other	Respondents
Potential (Online)	310	382	29	727
Potential (Phone)	156	85	0	241
Recent	49	38	0	88
Grand Total	515	505	29	1056
Total Share	48.8%	47.8%	2.7%	

HR9, HR7A, HP4A, HP5. What type of fuel does your water heater use now?

Numbers can total more than the number of respondents, due to some homes having more than one water heater installed.

Table H-02: Water Heater Type Among Homeowner Survey Respondents

	Tankless / On demand	Heat pump / Hybrid	Indirect	Standard water heater	Other	Don't know	Respondents (n)
Potential (Online)	34	7	2	659	21	13	736
Potential (Phone)	3	0	0	241	4	18	266
Recent (Online)	15	8	2	44	1	0	70
Recent (Phone)	3	7	0	18	2	3	33
Grand Total	55	22	4	962	28	34	1105
Total Share	5.0%	2.0%	0.4%	87.1%	2.5%	3.1%	

HR7, HP4. Which type of water heater do you have now?

Numbers can total more than the number of respondents, due to some homes having more than one water heater installed.

Table H-03: Water Heater Tank Size

	Potential (Online)	Potential (Phone)	Total
Less than 40 gallons	12	22	34
40 gallons	141	40	181
50 gallons	232	80	312
65 gallons	59	6	65
75 gallons	32	6	38
80 gallons	58	13	71
120 gallons	4	0	4
Don't know	22	64	86
No tank/tankless	30	0	30
Respondents (n)	590	231	821

HP7B, HP4B. What is the tank size of the water heater you have now?

Table H-04: Manufacturer Installed Base Among Homeowner Survey Respondents

	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Totals	Share
American Water Heater	35	1	3		39	3.5%
AO Smith	37	9	0		46	4.2%
Apollo	1		0		1	0.1%
Bosch	5	1	2	1	9	0.8%
Bradford White	61	2	11	2	76	6.9%
General Electric	19	3	9	7	38	3.4%
Kenmore or Sears	75	11	2		88	8.0%
Maytag	13		0		13	1.2%
Reliant	19	2	3	2	26	2.4%
Rheem or Ruud	85	13	6	2	106	9.6%
Rinnai Tankless unit	15	1	7	1	24	2.2%
State Industries	10	1	0		11	1.0%
Whirlpool	13	1	1		15	1.4%
Other	27	10	10	1	48	4.4%
Don't know	321	211	14	16	562	51.0%
Respondents (n)	736	266	68	32	1102	

HR8A, HP6. What brand of water heater do you have?

	Recent Online	Recent Phone	Total
Chain hardware store (Ace Hardware, True Value Hardware)	1	2	3
Chain store (Sears)	4	6	10
Contractor		5	5
Local (non-chain) hardware store	3		3
National home improvement store (Home Depot, Lowe's)	14	12	26
Online store	3		3
Plumber	27	2	29
Plumbing supply store (George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)	9	4	13
Other	8	2	10
Grand Total	69	33	102

HR16. At what type of store was the water heater purchased?

	Emergency	Planned	Respondents
Recent (Online)	29	40	69
Recent (Phone)	7	7	14
Grand Total	36	47	83

HR13. Did you treat the replacement as an emergency and have it replaced within one or two days?

	No	Yes	Respondents (n)
Recent (Online)	23	17	40
Emergency	14	6	20
Planned	9	11	20
Recent (Phone)	9	3	12
Emergency	4	2	6
Planned	5	1	6
Grand Total	32	20	52

HR12 (vs. HR13). Did you consider a heat pump water heater?

	Did Not Consider	Considered	Respondents (n)
Emergency	18	8	26
Planned	14	12	26
Total	32	20	52

HR12 (vs. HR13). Did you consider a heat pump water heater?

	No	Yes	Respondents (n)
Recent (Online)	23	17	40
Recent (Phone)	17	5	22
Grand Total	40	22	62
Share	65%	35%	

HR12. Did you consider a heat pump water heater?

Table H-08: Consumer Preferences for Starting the Buying Process						
	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Grand Total	Total Share
Call a contractor	29	16	8	6	59	5%
Call a friend or family member	48	23	6	0	77	7%
Call a plumber	108	32	16	3	159	14%
Go to a store	143	111	4	10	268	24%
Research online	368	30	30	9	437	40%
Other	27	38	5	5	75	7%
Don't know	14	15	0	0	29	3%
<i>Respondents (n)</i>	737	265	69	33	1104	

HR14, HP9. What would be the first step you would take to replace your water heater?

Table H-09: Additional Amount Willing to Pay for ENERGY STAR					
	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Grand Total
\$0 to \$49 more	0	37	0	9	46
\$50 to \$100 more	218	49	12	3	282
\$101 to \$200 more	196	47	11	5	259
\$201 to \$300 more	99	7	9	3	118
\$301 to \$400 more	47	9	8	2	66
More than \$500	49	19	9	2	79
Don't know	120	98	15	9	242
<i>Respondents (n)</i>	729	266	64	33	1092

HR29, HP20. A new ENERGY STAR water heater saves you \$200 every year on your annual fuel bill by heating your water more efficiently. They are manufactured by a leading water heater manufacturer and have the same tank life and warranties as your current water heater. Please tell me how much more, if anything, you would be willing to pay for the ENERGY STAR water heater I described?

Table H-10: Likelihood of Paying \$500 More for ENERGY STAR						
	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Grand Total	Total Share
Not at all likely	41	45	3	10	99	9.0%
Not very likely	99	57	10	8	174	15.8%
Somewhat likely	250	109	12	8	379	34.4%
Very likely	106	40	32	5	183	16.6%
Not sure	244	14	10	2	270	24.5%
<i>Respondents (n)</i>	740	265	67	31	1103	

HR30, HP21. After taxes credits and rebates, the ENERGY STAR water heater costs \$500 more than a standard water heater. If this water heater is available when you are shopping for your new water heater, how likely will you be to purchase it?

Table H-11: Important Factors to Consumers When Choosing a Water Heater					
	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Compiled Rating
Availability/in stock	3.8	3.8	3.8	3.9	3.8
Brand	3.1	2.9	3.2	2.7	3.1
Color or design	1.9	1.5	1.7	1.6	1.8
Energy efficiency or operating costs	4.5	4.5	4.5	4.5	4.5
ENERGY STAR Seal	4.3	4.2	4.1	4.0	4.3
Quiet/Noise Level	3.6	3.3	3.0	3.1	3.5
Rebate or other incentive	3.8	3.4	3.3	3.3	3.7
Recommendation from salesperson/contractor	3.4	3.2	3.3	3.0	3.3
Size of the unit	4.1	4.0	3.9	4.0	4.0
Tank life	4.4	4.4	3.9	4.3	4.3
Warranty	4.3	4.0	4.2	4.0	4.2

HR22A-L, HP15A-L. Could you please tell me how important each of the following factors would be on a scale of 1 to 5 with 1 being "not at all important" and 5 being "very important".

Table H-12: Potential Purchasers Who Would Consider Replacing Water Heater				
	Yes	No	Don't know	<i>Respondents (n)</i>
Potential (Online)	298	395	7	740
Potential (Phone)	56	206	4	267
Grand Total	354	601	11	1007
Total Share	35.2%	59.7%	1.1%	

HP7. You said earlier your water heater is ___years old. Have you considered replacing the unit before it fails?

Table H-13: Potential Purchasers Who Would Apply for a Rebate				
	Yes	No	Not sure	<i>Number of Responses</i>
Potential (Online)	685	4	40	729
Potential (Phone)	237	18	11	266
Grand Total	922	22	51	995
Share	93%	2%	5%	

HP23. If rebates were available for a new water heater you purchased, would you apply for one?

Table H-14: Recent Purchasers Who Applied for a Rebate				
	Yes	No	Not sure	<i>Number of Responses</i>
Recent (Online)	30	23	11	64
Recent (Phone)	15	18		33
Grand Total	45	41	11	97
Share	46%	42%	11%	

HR26. Did you or do you intend to apply for a rebate for the new water heater?

Table H-15: Potential Purchasers Who Would Apply for Tax Credit				
	Yes	No	Not sure	<i>Number of Responses</i>
Potential (Online)	642	13	74	729
Potential (Phone)	211	41	14	266
Grand Total	853	54	88	995
Share	86%	5%	9%	

HP24. If you were to purchase a new high efficiency water heater, would you apply for a tax credit?

Table H-16: Recent Purchasers Who Applied for Tax Credit				
	Yes	No	Don't know	<i>Number of Responses</i>
Recent (Online)	37	20	7	64
Recent (Phone)	12	20	1	33
Grand Total	49	40	8	97
Share	51%	41%	8%	

HR27. Did you or do you intend to apply for a tax credit for the new water heater?

Table H-17: Awareness of High Efficiency Water Heater Options				
	Potential (Online)	Potential (Phone)	Grand Total	Total Share
Aware of Heat Pump	376	140	516	52%
Aware of Tankless	139	195	334	33%
Aware of Neither	88	62	150	15%
Total Responses	603	397	1000	

HP16. Are you aware of high efficiency water heaters such as...?

Table H-18: Recent Purchaser Brand Loyalty		
	Total	Share
Bought Same Brand	5	15%
Switched Brand	18	55%
Don't Know	10	30%
Respondents (n)	33	

HR8B. Is this the same brand you had before?

	Less than \$400	\$401 to \$500	\$501 to \$750	\$751 to \$1,000	\$1,001 to \$1,500	More than \$1,500	Don't know	Respondents (n)
Potential (Online)	120	134	133	92	55	24	171	729
Potential (Phone)	47	34	28	13	13	7	124	266
Potential Purchaser	167	168	161	105	68	31	295	995
Potential Purchaser %	16.8%	16.9%	16.2%	10.6%	6.8%	3.1%	29.6%	
Recent (Phone)	6	3	3	2	1	5	3	23
Recent (Online)	12	10	7	12	10	13	0	64
Recent Purchaser	18	13	10	14	11	18	3	87
Recent Purchaser %	20.7%	14.9%	11.5%	16.1%	12.6%	20.7%	3.4%	
Grand Total	185	181	171	119	79	49	298	1082
Total Share	17.1%	16.7%	15.8%	11.0%	7.3%	4.5%	27.5%	

HP19. What do you expect to pay for a new water heater unit, including any installation costs?

	5	4	3	2	1	Respondents (n)
Potential (Online)	49	373	282	24	1	729
Potential (Phone)	34	142	78	12	0	266
Recent (Phone)		10	11	2	0	23
Recent (Online)	23	8	29	4	0	64
Grand Total	106	533	400	42	1	1082
Total Share	9.8%	49.3%	37.0%	3.9%	0.1%	

HP18, HR24A. When it comes to price, is price the most important factor to you in purchasing your new water heater, one important factor but not the only thing you will consider, somewhat of a consideration but other factors will be more important or not important to you at all?

Survey	Average	Respondents (n)
Potential (Online)	3.6	729
Potential (Phone)	3.7	266
Recent (Phone)	3.5	23
Recent (Online)	3.7	64
Aggregate Average	3.6	1082

HP18, HR24A. When it comes to price, is price the most important factor to you in purchasing your new water heater, one important factor but not the only thing you will consider, somewhat of a consideration but other factors will be more important or not important to you at all?

	Potential	Potential	Grand Total	Total Share
Not at all likely	5	17	22	2.2%
Not very likely	5	21	26	2.6%
Somewhat likely	177	84	261	26.3%
Very likely	498	128	626	63.1%
Not sure	44	13	57	5.7%
Respondents (n)	729	263	992	

HP17. Energy efficient water heaters save customers money every year on their annual electric bill by heating water more efficiently. They are manufactured by a leading water heater manufacturer, and have the same tank life and warranties as a standard water heater. Now that you know more, would you be very likely, somewhat likely, not very likely or not likely at all to purchase an energy efficient water heater?

	Potential (Online)	Potential (Phone)	Grand Total	Total Share
A rebate after purchasing	315	120	435	43.7%
A tax credit	159	48	207	20.8%
Interest-free financing	125	22	147	14.8%
Monthly payments through my utility	65	43	108	10.9%
None of the above	31	15	46	4.6%
Don't know	34	18	52	5.2%
Respondents (n)	729	266	995	

HP27. Of all the options available to motivate or encourage customers to purchase an energy efficient water heater, which of these is the most appealing to you?

	Recent (Online)	Recent (Phone)	Grand Total	Total Share
Deteriorating	0	3	3	2.1%
It failed suddenly	32	14	46	32.6%
It was getting old and it was time to replace it before it broke	26	10	36	25.5%
We wanted a different type of water heater	11	0	11	7.8%
We wanted more efficiency	24	8	32	22.7%
Other	6	7	13	9.2%
<i>Respondents (n)</i>	99	42	141	

R5. Why did you replace the unit? (Read if necessary, choose all that apply)

	Potential (Online)	Potential (Phone)	Grand Total	Total Share
Not at all likely	98	90	188	18.9%
Not very likely	130	45	175	17.6%
Somewhat likely	225	70	295	29.6%
Very likely	122	51	173	17.4%
Not sure	154	10	164	16.5%
<i>Respondents (n)</i>	729	266	995	

HP25. If you could finance your water heater through your utility and pay a monthly charge for an energy efficient model, how likely would you be to participate in this program?

	Potential (Online)	Potential (Phone)	Total	Total Share
Not at all likely	92	84	176	17.7%
Not very likely	104	44	148	14.9%
Somewhat likely	236	65	301	30.3%
Very likely	188	67	255	25.6%
Not sure	109	6	115	11.6%
<i>Respondents (n)</i>	729	266	995	

HP26. If you could get interest - free financing for six to 12 months on an energy efficient water heater, how likely would you be to participate in this program?

	A plumber or contractor	A trusted friend	Me or my spouse/partner	Not sure	Other	<i>Respondents (n)</i>
Potential (Online)	24	6	693	12	0	735
Potential (Phone)	5		256		5	266
Recent (Online)	13	3	53	0	0	69
Recent (Phone)	10		23			33
Grand Total	52	9	1025	12	5	1103
Total Share	4.7%	0.8%	92.9%	1.1%	0.5%	

HP12. Who would make the final decision on which new water heater to purchase?

	Recent (Online)	Recent (Phone)	Grand Total	Total Share
Internet	39	13	52	32.3%
Salesperson	14	7	21	13.0%
Utility help desk or utility website	9	4	13	8.1%
Word of mouth	12	7	19	11.8%
Yellow Energy Guide label	11	9	20	12.4%
Other	7	8	15	9.3%
None of the above	14	0	14	8.7%
Don't know	1	6	7	4.3%
<i>Total Responses</i>	107	54	161	

HR20. Which of the following additional sources of information, if any, did you use to decide on which water heater to purchase? (Select all that apply)

Table H-28: Likelihood of Online Research Prior to Purchase				
	Potential (Online)	Potential (Phone)	Grand Total	Total Share
Always	221	23	244	24.5%
Often	219	24	243	24.4%
Sometimes	162	45	207	20.8%
Rarely	92	60	152	15.2%
Never	39	112	151	15.1%
<i>Respondents (n)</i>	<i>733</i>	<i>264</i>	<i>997</i>	

HP14. How often do you research home appliance purchases on the internet?

Table H-29: Preferred Points of Purchase by Potential Purchasers				
	Potential (Online)	Potential (Phone)	Grand Total	Total Share
National home improvement store (e.g. Home Depot, Lowe's)	504	63	567	34.3%
Chain store (e.g. Sears)	210	18	228	13.8%
Chain hardware store (e.g. Ace Hardware, True Value Hardware)	140	15	155	9.4%
Local (non-chain) hardware store	106	12	118	7.1%
Plumbing supply store (e.g. George Morland)	222	16	238	14.4%
Buying Club (e.g. Costco, Sam's Club)	124	2	126	7.6%
Plumber	87	1	88	5.3%
Online store	86	0	86	5.2%
Other	9	3	12	0.7%
Don't know	33	4	37	2.2%
<i>Total Responses</i>	<i>1521</i>	<i>134</i>	<i>1655</i>	

HP9B. What kind of store(s) would you visit?

Table H-30: Preferred Store Types (Actual Recent Purchases)				
	Recent (Online)	Recent (Phone)	Grand Total	Total Share
Chain hardware store (e.g. Ace Hardware, True Value Hardware)	0	1	1	4.5%
Chain store (e.g. Sears)	2	0	2	9.1%
Chain store (e.g. Sears)	0	1	1	4.5%
Local (non-chain) hardware store	2	1	3	13.6%
National home improvement store (e.g. Home Depot, Lowe's)	5	7	12	54.5%
Plumbing supply store (e.g. George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)	1	0	1	4.5%
Other	0	2	2	9.1%
<i>Total Responses</i>	<i>10</i>	<i>12</i>	<i>22</i>	

HR14A. What kind of store did you visit?

	Potential (Online)	Potential (Phone)	Grand Total	Total Share
To do initial research on water heaters	591	117	708	50.6%
To learn more about water heaters after talking with someone or going to a store	317	89	406	29.0%
To purchase a water heater	71	15	86	6.1%
Don't use the Internet when making an appliance decision	45	0	45	3.2%
Don't know	32	123	155	11.1%
Total Responses	1056	344	1400	

HP13. Would you use the internet...? (Select all that apply)

	Recent (Online)	Recent (Phone)	Grand Total	Total Share
American Water Heater	6	0	6	3.2%
AO Smith	9	0	9	4.8%
Bosch	9	2	11	5.9%
Bradford White	14	3	17	9.1%
General Electric	0	7	7	3.7%
Kenmore or Sears	9	0	9	4.8%
Reliant	4	3	7	3.7%
Rheem or Ruud	20	4	24	12.8%
Rinnai Tankless unit	18	1	19	10.2%
Takagi	4	0	4	2.1%
Other	19	8	27	14.4%
Don't know	15	32	47	25.1%
Total Responses	127	60	187	

HR8. What brand(s) did your consider?

	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Grand Total	Total%
Internet	498	43	33	2	576	30.8%
To a store	285	54	13	7	359	19.2%
Friend or family member	264	68	17	10	359	19.2%
Plumber	211	37	29	3	280	15.0%
Contractor	118	26	15	4	163	8.7%
None of the above	0	96	0	15	111	5.9%
Don't know	20	0	1	0	21	1.1%
Total Responses	1396	324	108	41	1869	

HR15, HP10. Would you also talk to or go to... (Please select all that apply)

	Switched	Switched %	Respondents (n)
Recent (Online)	12	17%	70
Recent (Phone)	3	9%	33
Grand Total	15	15%	103

HR10 (vs. HR9). What fuel did you use for your OLD water heater?

	Switched to			Respondents
	Gas	Electric	Other	
Recent (Online)	8	3	1	70
Recent (Phone)	1	2	0	33
Grand Total	9	5	1	103
Total Share	9%	5%	1%	

HR10 (vs. HR9). What fuel did you use for your OLD water heater?

Demographics

H-101 Annual household income in 2010 before taxes						
	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Grand Total	Total Share
Less than \$20,000 per year	14	39	1	3	57	5%
\$20,000 to \$49,000	121	82	7	4	214	20%
\$50,000 to \$74,000	160	58	13	9	240	22%
\$75,000 to \$99,000	134	33	11	2	180	16%
\$100,000 or more	192	24	22	7	245	22%
Decline to answer	108	30	10	9	157	14%
<i>Respondents (n)</i>	729	266	64	34	1093	

H-102 Gender				
	Female	Male	Decline to answer	<i>Respondents (n)</i>
Potential (Online)	351	377	1	729
Potential (Phone)	133	132	0	265
Recent (Online)	29	35	0	64
Recent (Phone)	16	11	0	27
Grand Total	529	555	1	1085
Total Share	49%	51%	0%	

H-103 Educational Background						
	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Grand Total	Total Share
Some high school	0	9	0	1	10	1%
High school graduate	42	72	2	6	122	11%
Trade or technical school	30	15	5	4	54	5%
Some college	134	73	7	5	219	20%
College graduate	247	64	25	11	347	32%
Some graduate school	67	5	4	1	77	7%
Graduate degree	206	23	20	5	254	23%
Decline to answer	3	5	1	1	10	1%
<i>Respondents (n)</i>	729	266	64	34	1093	

H-104 Age						
	Potential (Online)	Potential (Phone)	Recent (Online)	Recent (Phone)	Grand Total	Total Share
25 to 34	61	8	7	2	78	7%
35 to 44	91	23	13	0	127	12%
45 to 54	158	43	13	10	224	20%
55 to 64	239	82	18	12	351	32%
Over 65	178	108	12	9	307	28%
Decline to answer	2	2	1	1	6	1%
<i>Respondents (n)</i>	729	266	64	34	1093	

Appendix E: Supplier Data Tables

Table S-01: Water Heater Units Sold in 2010

Units	Installers (Online)	Installers (Phone)	Retailers	Total
0-25	1	31	50	82
26-50	7	26	22	55
50-75	1	10	9	20
76-100	0	11	5	16
101-200	1	10	7	18
201-499	1	6	2	9
500+	0	2	5	7
<i>Respondents (n)</i>	<i>11</i>	<i>96</i>	<i>100</i>	<i>207</i>
Total units	860	8045	27273	36178
Average units	78	84	273	175

SI4, SR2, SM3. How many residential water heater units did you install last year in your area?

Table S-02: Annual Change in Number of Units Sold (2009 to 2010)

Change	Installers (Phone)	Retailers	Total	Share
Sold Fewer Units	35	45	80	34%
Sold More Units	32	34	66	28%
Sold The Same Number of Units	21	67	88	38%
<i>Respondents (n)</i>	<i>88</i>	<i>146</i>	<i>234</i>	

SI5, SR3. Was this more or fewer water heaters than in the year before? By how many?

Table S-03: Annual Change in Water Heater Volume for Retailers and Installers, 2009 to 2010

	# Units Less	Average Units Less	% Less	# Units More	Average Units More	% More
Installers (Phone)	880	41.9	10%	290	13.2	7%
Retailers	1111	185.2	3%	126	14	4%
Total Units	1991	73.7	6%	416	13.4	5%

SI5, SR3. Was this more or fewer water heaters than in the year before? By how many?

Table S-04: Share of Sales by Water Heater Type

	High Efficiency Water Heater Type			<i>Respondents (n)</i>
	Tankless	Indirect	Heat Pump	
Installers (Online)	29.7%		1.4%	<i>12</i>
Installers (Phone)	13.3%	9.7%	1.0%	<i>96</i>
Manufacturers	27.5%	2.5%	5.0%	<i>2</i>
Retailers	2.4%	1.2%	0.2%	<i>98</i>
Overall Average	9.3%	5.3%	0.7%	208

SI12,13,13a, SR11, SM9,11. What percentage of your gas/electric water heater sales are tankless (or on demand)? Indirect units? Heat pump water heaters (also known as hybrid water heaters)?

Table S-05: Water Heaters as Share of Total Business for Installers

Share	Installers (Online)	Installers (Phone)	Total	Share
1-5% Share	1	47	48	45.7%
6-10% Share	0	30	30	28.6%
11-25% Share	0	12	12	11.4%
26-50% Share	1	4	5	4.8%
100% Share	10	0	10	9.5%
<i>Respondents (n)</i>	<i>12</i>	<i>93</i>	<i>105</i>	

SI7. What percentage do water heater installations make up of your total business?

Table S-06: Top Brands for Suppliers

Brand	Installers (Online)	Installers (Phone)	Retailers	Total	Share
Bradford White	7	67	7	81	26.8%
Reliance	0	0	78	78	25.8%
Rheem or Ruud	8	43	4	55	18.2%
AO Smith	4	37	4	45	14.9%
Navien Tankless	1	14	1	16	5.3%
Rinnai Tankless	2	7	2	11	3.6%
State	1	7	0	8	2.6%
American	0	3	1	4	1.3%
Bosch	1	0	3	4	1.3%
<i>Respondents (n)</i>	<i>24</i>	<i>178</i>	<i>100</i>	<i>302</i>	

SI8, SR7b. Which are your two main water heater brands?

Table S-07: Water Heater Fuel Type

	Electric	Gas	<i>Respondents (n)</i>
Installers (Online)	43.2%	56.8%	<i>11</i>
Installers (Phone)	42.8%	57.2%	<i>100</i>
Manufacturers	25.0%	75.0%	<i>2</i>
Retailers	79.1%	20.9%	<i>95</i>
Total	59.2%	40.8%	208

SI9, SR6, SM7. What percentage of your water heater sales are gas versus electric?

Table S-08: Number of Installs Replacing Electric with Gas

% Groups	Installers (Online)	Installers (Phone)	Total	Total Share
0%	2	35	37	33.0%
1-2%	1	26	27	24.1%
5-9%	5	20	25	22.3%
10-20%	3	13	16	14.3%
21-49%	1	2	3	2.7%
50-100%	0	4	4	3.6%
<i>Respondents (n)</i>	<i>12</i>	<i>100</i>	<i>112</i>	
Overall Average	9.7%	6.9%	7.2%	

SI10. What percentage of your total water heater installations includes replacing an electric water heater with a gas unit?

Table S-09: Projected Sales for 2011 (Number of Units)

	Installers (Online)	Installers (Phone)	Retailers	Total
Total Units	890	7789	19753	28432
Average	81	97	204	151
<i>Respondents (n)</i>	<i>11</i>	<i>80</i>	<i>97</i>	<i>188</i>

SI6, SR4. How many residential water heaters do you expect to install this year?

Table S-10: Share of Suppliers Who Offer Heat Pump Water

	No	Yes	<i>Respondents (n)</i>
Installers (Online)	6	5	<i>11</i>
Installers (Phone)	73	25	<i>98</i>
Manufacturers	1	1	<i>2</i>
Retailers	94	6	<i>100</i>
Grand Total	174	37	211
Total Share	82.5%	17.5%	

SI13, SR11, SM9. Do you install/sell/manufacture heat pump (or hybrid) water heaters?

Table S-11: Comparison of Major Supplier Self-Designation

Units Sold	Major Supplier?		Respondents (n)
	No	Yes	
0-19	22	9	31
20-39	13	14	27
40-99	8	16	24
100-199	3	7	10
200+		6	6
Total Count	46	52	98
Total Share	46.9%	53.1%	

SR5. Was this more or fewer water heaters than in the year before? By how many?

Table S-12: Installations that Include Resold Units vs. Direct Purchase by Consumer

	Resell	Direct	Respondents (n)
Installers (Online)	91.0%	9.0%	9
Installers (Phone)	91.3%	8.7%	102
Total Share	91.3%	8.7%	113

S118a, b. What percentage of your installations are water heaters you resell to customers? What percentage of your installations are water heaters your customers purchase directly from retailers or distributors?

Table S-13: Comparison of Sales to New Construction and Replacement

Market	Installers (Online)	Installers (Phone)	Retailers	Average
New Construction	12.1%	17.1%	8.4%	12.9%
Replacement	86.5%	82.0%	91.4%	86.6%

S122 a, b; SR8, 9. What percentage of water heater installations/sales are for new construction? Replacements?

Table S-14: Comparison of Sales that are Planned and Emergency

	Installers (Online)	Installers (Phone)	Retailers	Average
Planned	75.0%	45.9%	26.8%	38.9%
Emergency	25.0%	54.1%	73.2%	61.1%

S122c, SR10. What percentage of your business is a result of emergency replacements versus planned replacements?

Table S-15: Comparison of Fuel and

	Share
New Electric	5.8%
New Gas	2.2%
Replace Electric	68.9%
Replace Gas	23.1%

SR8, 9. What percentage of your gas/electric water heater sales are for new construction? Replacements?

Table S-16: Top Brands Carried by Small Retailers

Brand	WH Fuel Type			Total Responses	Total Share
	Gas	Electric	Other		
Reliance	55	76	2	133	76.4%
Bradford White	3	8	0	11	6.3%
GE	0	3	1	4	2.3%
AO Smith	2	3	1	6	3.4%
Rheem or Ruud	4	6	2	12	6.9%
Kenmore	2	2	0	4	2.3%
Rinnai	2	0	0	2	1.1%
Total Responses	69	99	6	174	

SR7. What brands do you sell?

Table S-17: Installers Who Discuss High Efficiency Options

Frequency	Installers (Online)	Installers (Phone)	Total Responses	Total Share
All the time	3	43	46	41%
Most of the time	3	27	30	27%
Sometimes	2	27	29	26%
Rarely/Never	1	5	6	5%
<i>Respondents (n)</i>	9	102	111	

SI27. How often do you discuss energy savings and high efficiency appliances with potential water heater customers?

Table S-18: Share of Orders Through Retail Website

	Retailers	Share
None	30	38%
1-9% of sales	23	29%
10-19% of sales	14	18%
20-49% of sales	8	10%
50-90% of sales	4	5%
Average Share	9.3%	

SR24. In your estimation, what percentage of orders result from end users/consumers who visit your website in search of information about water heaters?

Table S-19: Share of Customers Who Shop Around

	Rely on a trusted source	Shop around	Don't Know	<i>Respondents (n)</i>
Installers (Online)	7	2	0	9
Installers (Phone)	48	34	19	101
Retailers	46	39	14	99
Grand Total	101	75	33	209
Total Share	48%	36%	16%	

SI25, SR23. In your opinion, do customers typically "shop around" for water heaters, or do they rely on a trusted source for information?

Table S-20: Suppliers Offering Tax Credit Information

	No	Yes	<i>Respondents (n)</i>
Installers (Online)	3	6	9
Installers (Phone)	29	72	101
Retailers	49	49	98
Grand Total	81	127	208
Total Share	39%	61%	

SI31, SR26. Do you provide customers with information about efficiency tax credits?

Table S-21: Supplier Perception of Top Factors for Consumers

Factor	Replacement Reason		Total Responses	Total Share
	Emergency	Planned		
Cost	32	38	70	22%
Size	34	31	65	21%
Efficiency	15	36	51	16%
Availability	34	9	43	14%
Warranty	10	15	25	8%
Trust supplier	6	11	17	5%
Quality	9	7	16	5%
Ease of Install	7	2	9	3%
Same unit	3	3	6	2%
Other	5	10	15	5%
<i>Respondents (n)</i>	155	162	317	

SI23. What are the most important factors you (and customers) consider when selecting a water heater for emergency replacement?

SI24. What are the most important factors you (and customers) consider in order to get a planned replacement installed?

Table S-22: Number of Mentions for Top Water Heater Market Trends, by Retailers and Manufacturers

	Retailers	Manufacturers	Total Responses	Total Share
Tankless/On Demand	47	1	48	37%
Improving Efficiency	18	2	20	16%
HP/Hybrids	11		11	9%
Price	4		4	3%
Longevity	2		2	2%
Rebates/Tax Credits		2	2	2%
Solar	2		2	2%
Standard Water Heaters	5		5	4%
Other	4		4	3%
Don't know	26		26	20%
<i>Total Responses</i>	<i>119</i>	<i>5</i>	<i>124</i>	

SR16. What do you perceive are the latest trends in water heating products?

Table S-23: Where Consumers Go for Information to Start Shopping

	Installers (Phone)	Retailers	Installers (Online)	Total Responses	Total Share
Big Box Store	10	7	2	19	9%
Hardware Store	1	43	0	44	20%
Installer	26	5	5	36	17%
Internet	34	28	4	66	30%
Utility	1	1	0	2	1%
Other	31	20	0	51	23%
<i>Respondents (n)</i>	<i>103</i>	<i>104</i>	<i>11</i>	<i>218</i>	

SI20, SR22. In your opinion, if a customer needs a new water heater, where do they typically go to get information or start the process?

Table S-24: Incentives That Will Encourage Purchase of High Efficiency Water Heaters

Incentive	Installers (Online)	Installers (Phone)	Manufacturers	Retailers	Total Responses	Total Share
Rebates		30		46	76	30%
Tax Credit	1	21		15	37	15%
Financing		17	2	15	34	13%
Lower Prices		15		14	29	12%
Information		9		12	21	8%
Other	1	6		2	9	4%
None	1	10		3	14	6%
Don't know		15		17	32	13%
<i>Respondents (n)</i>	<i>3</i>	<i>123</i>	<i>2</i>	<i>124</i>	<i>252</i>	

SI33, SR28, SM25. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high efficiency, higher cost water heaters by consumers?

Table S-25: Top Ways NEEA Can Improve High Efficiency Water Heater Adoption

	Installers (Online)	Installers (Phone)	Manufacturers	Retailers	Total Responses	Total Share
Educate Consumers	1	29	2	32	64	24%
Advertising		16		20	36	14%
Rebates	1	20		12	33	12%
Lower Prices		17		10	27	10%
Educate Suppliers		9		17	26	10%
Tax credits		9		3	12	5%
Incentives	2	1		6	9	3%
Other		14		8	22	8%
Don't know/None	1	14		22	37	14%
<i>Respondents (n)</i>	<i>5</i>	<i>129</i>	<i>2</i>	<i>130</i>	<i>266</i>	

SI34, SR29, SM26. NEEA is looking for ways to help improve the market for high efficiency water heaters in the Northwest. Do you have any suggestions for ways that NEEA can help installers like you install/sell/manufacture more high efficiency units?

	Retailers	Total Share
Big Box Stores (Home Depot, Lowe's)	37	38%
Hardware Store (Ace, TruValue)	8	8%
Plumbing Supply Store	9	9%
Us (Respondent)	9	9%
Reliance	5	5%
AO Smith	4	4%
Other	5	5%
Don't know	20	21%
<i>Respondents (n)</i>	<i>97</i>	

SR21. Who in your industry do you see as the overall sales leader? Why?

	No	Yes	<i>Respondents (n)</i>
Installers (Online)	3	6	9
Installers (Phone)	22	54	76
Retailers	29	31	60
Grand Total	54	91	145
Total Share	37%	63%	

SI32b, SR27b. Do you participate in [utility] water heater rebates?

Demographics

	Installers (Online)	Installers (Phone)	Grand Total	Total Share
1	10	100	110	96%
2	2	0	2	2%
3	0	1	1	1%
25	0	1	1	1%
<i>Respondents (n)</i>	<i>12</i>	<i>102</i>	<i>114</i>	
Overall Average	1.2	1.3	1.2	

	Installers (Online)	Installers (Phone)	Grand Total	Total Share
1	1	23	24	21%
2-5	3	58	61	54%
6-15	6	17	23	20%
16 or more	2	4	6	5%
<i>Respondents (n)</i>	<i>12</i>	<i>102</i>	<i>114</i>	

	Installers (Online)	Installers (Phone)	Retailers	Grand Total	Total Share
WA	4	26	35	65	31%
OR	4	4	21	29	14%
ID	3	34	21	58	28%
MT	1	37	20	58	28%
<i>Total Responses</i>	<i>12</i>	<i>101</i>	<i>97</i>	<i>210</i>	

Table S-104 Business Type

	Installers	Retailers	Grand Total	Total Share
Boiler and Furnce Contractors	1	0	1	1%
Builders' Hardware	0	6	6	3%
Fire Sprinkler System Installation	1	0	1	1%
Hardware Store	1	71	72	41%
Heating and Air Conditioning Contractors	13	2	15	9%
Heating Systems Repair and Maintenance	8	0	8	1%
Mechanical Contractor	4	0	4	2%
Plumbing Contractors	50	2	52	30%
Plumbing, Heating, and Air Conditioning	23	0	23	13%
<i>Respondents (n)</i>	<i>94</i>	<i>81</i>	<i>175</i>	

Appendix F. Secondary and Combined Research Tables

Table F-01: Incidence of Top Ten Barriers to High Efficiency Water Heater Adoption				
	Retailers	Installers	All Other Data	Total
Cost	37	98	51	186
Lack of Knowledge/Awareness	26	15	29	70
Cost of Installation	4	17	16	37
Installer Knowledge	0	7	28	35
Size	1	7	24	32
Payback time too long	2	13	9	24
Installation issues	5	6	10	21
Bad Climate	5	3	11	19
No Demand	16	3	0	19
Lack of Availability	12	2	0	14

All Other Data includes Mystery Shops, In Depth Interviews, and On Site Interviews

Table F-02: New Single Family Housing Starts					
	All Four States	Washington	Oregon	Idaho	Montana
2000	52,336	25,471	15,619	9,681	1,565
2001	54,587	26,736	16,323	9,738	1,790
2002	60,547	30,239	17,413	10,845	2,050
2003	65,907	33,091	17,875	12,601	2,340
2004	75,915	36,489	20,728	15,273	3,425
2005	87,878	41,407	23,840	19,172	3,459
2006	73,664	35,611	19,859	14,789	3,405
2007	58,286	30,390	15,310	9,551	3,035
2008	32,488	17,440	7,466	5,673	1,909
2009	23,906	12,991	5,278	4,274	1,363
2010	24,851	14,702	5,259	3,568	1,322

"New Residential Construction, Historic Annual Building Permit data by State," US Census Bureau, http://www.census.gov/const/www/newresconstindex_excel.html

Table F-03: National Sales of Water Heaters

	Electric	Gas	Total	YTD Electric	YTD Gas	Electric Share
1990	3,226,321	3,906,264	7,132,585			45%
1991	3,169,965	3,936,465	7,106,430			45%
1992	3,398,605	4,241,345	7,639,950			44%
1993	3,608,740	4,470,422	8,079,162			45%
1994	3,896,839	4,750,253	8,647,092			45%
1995	3,916,993	4,453,337	8,370,330			47%
1996	4,100,665	4,672,619	8,773,284			47%
1997	4,062,975	4,624,644	8,687,619			47%
1998	4,162,654	4,671,000	8,833,654			47%
1999	4,281,199	4,933,659	9,214,858			46.5%
2000	4,257,433	4,907,007	9,164,440			46.5%
2001	4,333,170	4,931,276	9,264,446			46.8%
2002	4,390,495	4,987,976	9,378,471			46.8%
2003	4,429,880	5,124,265	9,554,145			46.4%
2004	4,572,932	5,053,775	9,626,707			47.5%
2005	4,518,598	4,801,188	9,319,786			48.5%
2006	4,791,640	4,654,436	9,446,076			50.7%
2007	4,470,232	4,384,428	8,854,660			50.5%
2008	4,189,451	4,000,593	8,190,044			51.2%
2009	3,751,994	3,760,657	7,512,651			49.9%
2010	3,736,597	3,918,150	7,654,747	2,577,475	2,725,684	48.8%
2011	3,569,271	3,741,164	7,310,436	2,462,055	2,602,563	48.8%

Estimated from YTD shipments

Sources:

<http://www.ahrinet.org/historical+data.aspx>

<http://www.ahrinet.org/monthly+shipments.aspx>

Table F-04 Northwest Populations Statistics

	Population	Housing Units
Washington	6,724,540	2,885,677
Oregon	3,831,074	1,675,562
Idaho	1,567,582	667,796
Montana	989,415	482,825

Source: 2010 Census, U.S. Census Bureau, <http://quickfacts.census.gov/qfd/index.html>

Appendix G. Survey Questions and Guides

Phone Surveys

Online Surveys

In-depth Interview Questions

Ride Along Questions

Tag Along Questions

Intercept Questions

Mystery Shopping Questions

#4039 - NEEA – Home Water Heater (HWH4039)

LB - CATI

Hello. This is (**insert your name**). I'm calling on behalf of NEEA, the Northwest Energy Efficiency Alliance. Our organization represents both public and private utility companies in the Northwest. Today we are seeking input from homeowners like you to learn more about some of the appliances in your home. We are not trying to sell anything: this survey is just for research purposes.

IF NECESSARY: The survey should take about 10 minutes. This interview is completely confidential and none of your individual responses will be shared with anyone at any time.

INTRO. Are you willing to participate?

1. Agreed to participate
2. Refused to participate (**TERMINATE - Dispo 23**)

Let's get started with a few demographic questions.

QA_2. First, which of the following states do you live in?

1. Washington
2. Idaho
3. Oregon
4. Montana
5. None of the above (**TERMINATE – Dispo 24 -will happen after enter Zip below**)

QA. Can you confirm your zip code is (**show zip from sample**)

1. Yes (**Skip to QB**)
2. No

QA_3. What is your Zip code? (**NUM**)

QB. Interviewer please record gender

1. Male
2. Female

Q1. Have you or someone in your household purchased a new hot water heater in the last year?

1. Yes (**Skip to R2 – count toward RECENT quota**)
2. No
3. Don't know (**Interviewer: Schedule call back time to speak to correct person**)

Interviewer - if call back is refused, please end and code as mid-term refusal.

If Interviewer selects "Don't Know" TERMINATE – Dispo 23 (refusal)

Q1A. Is your home more than 10 years old?

1. Yes (**Skip to PINTRO – survey as POTENTIAL**)
2. No (**TERMINATE – Dispo 25**)

R2. Are you the person who decided which hot water heater to purchase?

IF NEEDED, ADD: Or who selected a contractor if one was involved?

1. Yes
2. No **(see note below)**
3. Don't know **(TERMINATE – Dispo 26)**

Interviewer: If No, Ask: "Who made the decision? Are they available?"

Schedule a callback to interview the correct person.

Interviewer - if call back is refused, please end and code as mid-term refusal.

If Interviewer selects "No" or "Don't Know" TERMINATE – Dispo 26 (DM)

R3. How long ago did you purchase you water heater? Was it...

1. Less than 6 months ago
2. Between 6 and 12 months ago
3. Between 1 and 3 years ago **(Skip to P2 – survey as POTENTIAL)**
4. Between 4 and 6 years ago **(Skip to P2 – survey as POTENTIAL)**
5. At least 7 years ago, prior to the summer of 2004 **(Skip to P2 – survey as POTENTIAL)**
6. (Don't read) Don't know **(See note below)**

Interviewer: If Dont Know, ask for referral of the person who does know. Schedule a call back. If callback is refused code as Dont know above.

If Interviewer codes as "Don't know" TERMINATE – Dispo 27

IF RECENT QUOTA MET, TERMINATE – DISPO 31

R4. Approximately how old was the water heater you replaced? (An estimate is fine)

1. Under 5 years old
2. 5-10 years old
3. 11-15 years old
4. 16-20 years old
5. 21+ years old
6. New construction – first time purchase
7. (Don't read) Don't know

R5. Why did you replace the unit? (Read if necessary, choose all that apply)

1. It was getting old and it was time to replace it before it broke
2. It suddenly failed **[FAIL = 1]**
3. We wanted more efficiency
4. We wanted a different type of water heater (Probe for the difference between the old and new type and record below) **R5_DIF**
5. We were doing a remodel that included a new water heater
6. Other (Please specify below) **R5_OTH**

FAIL = 1 if selected option 2 "It suddenly failed"

R6. Where is your current water heater located?

1. Basement
2. Garage
3. Kitchen
4. Utility Area
5. Other (Please specify below) **R6_OTH**
6. (Don't read) Don't know

R7. Which type of water heater did you purchase? (Read list)

1. Standard water heater
2. Tankless / On Demand **(Skip to R8)**
3. Heat pump / Hybrid **(Skip to R8)**
4. Other (Please specify below) **R7_OTH (Skip to R8)**
5. (Don't read) Don't know **(Skip to R8)**

PAGE1 (R7A-R7B)

R7A. Is the water heater electric or gas?

1. Electric
2. Gas
3. (Don't read) Don't know

R7B. What was the tank size of the water heater you purchased? (Read if necessary)

1. Less than 40 gallons
2. 40 gallons
3. 50 gallons
4. 65 gallons
5. 75 gallons
6. 80 gallons
7. 120 gallons
8. Other (Please specify below) **R7B_OTH**
9. (Don't read) Don't know

R8. What brand(s) did your consider? (DO NOT READ LIST - Select all that apply)

1. Rheem or Ruud
2. AO Smith
3. Maytag
4. State Industries
5. Bradford White
6. American Water Heater
7. Kenmore or Sears
8. Reliant
9. Apollo
10. Rinnai Tankless unit
11. Bosch
12. Takagi
13. Other (Please specify below) **R8_OTH**
14. (Don't read) Don't know
15. Brand not a consideration

R8A. What brand did you finally purchase? (DO NOT READ LIST)

1. Rheem or Ruud
2. AO Smith
3. Maytag
4. State Industries
5. Bradford White
6. American Water Heater
7. Kenmore or Sears
8. Reliant
9. Apollo
10. Rinnai Tankless unit
11. Bosch
12. Takagi
13. Other (Please specify below) **R8A_OTH**
14. (Don't read) Don't know

R8B. Is this the same brand you had before?

1. Yes
2. No
3. (Don't read) Don't know

PAGE2 (R9-R10)

R9. What fuel do you NOW use to heat your water?

1. Electric
2. Natural gas
3. Electric with solar backup
4. Solar
5. Oil/Propane/Wood/Other
6. (Don't read) Don't know

R10. What fuel did you use for your OLD water heater?

1. Electric
2. Natural gas
3. Electric with solar backup
4. Solar
5. Oil/Propane/Wood/Other
6. (Don't read) Don't know

RHEAT = score below

If R9 = 1 and R10 = 1 (**RHEAT** = 1)

If R9 = 2 and R10 = 2 (**RHEAT** = 1)

If R9 = 3 and R10 = 3 (**RHEAT** = 1)

If R9 = 4 and R10 = 4 (**RHEAT** = 1)

If R9 = 5 and R10 = 5 (**RHEAT** = 1)

If R9 = 6 and R10 = 6 (**RHEAT** = 1)

***If RHEAT = 1, skip to R12**

R11. Why did you choose to switch fuels? (Select all that apply)

1. To save money
2. Because we wanted our water heating and heating to be the same
3. We were more comfortable with gas
4. We were more comfortable with electricity
5. Other (Please specify below) **R11_OTH**
6. (Don't read) Don't know

***If R7 = 3 (heat pump/hybrid), skip to R13**

R12. Did you consider a heat pump water heater?

1. Yes
2. No
3. (Don't read) Don't know

***If FAIL = 0, Skip to R14**

R13. Did you treat the replacement as an emergency and have it replaced within one or two days of failure?

1. Yes (**Skip to R14**)
2. No
3. (Don't read) Don't know (**Skip to R14**)

R13A. How long did it take to get your water heater replaced?

1. 3-4 days
2. 5-6 days
3. 7-10 days
4. More than 10 days
5. (Don't read) Don't know

R14. What was the first step you took to replace your water heater? (DON'T READ LIST)

1. Called a plumber (**Skip to R15**)
2. Called a contractor (**Skip to R15**)
3. Researched on the internet / go online (**Skip to R15**)
4. Went to a store
5. Called a friend or family member (**Skip to R15**)
6. Other (Please specify below) **R14_OTH (Skip to R15)**
7. (Don't read) Don't know (**Skip to R16**)

R14A. What kind of store did you visit? (DON'T READ LIST - Select all that apply)

1. Plumbing supply store (George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)
2. Local (non-chain) hardware store
3. Chain hardware store (Ace Hardware, True Value Hardware)
4. Chain store (Sears)
5. National home improvement store (Home Depot, Lowe's)
6. Buying Club (Costco, Sam's)
7. Online store
8. Other (Please specify below) **Q14A_OTH**
9. (Don't read) Don't know

R15. Did you also talk to or go to... (Please select all that apply) **(list will not show what selected in R14)**

1. Plumber
2. Contractor
3. On the internet to do research
4. To a store **RSTORE = 1**
5. A friend or family member
6. None of the above

RSTORE = 1 if selected "To a store" in R15

R16. At what type of store was the water heater purchased?

(Read list if necessary – except don't read 1 and 2)

1. (Don't read) Plumber
2. (Don't read) Contractor
3. At a plumbing supply store (George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)
4. Local (non-chain) hardware store
5. Chain hardware store (Ace Hardware, True Value Hardware)
6. Chain store (Sears)
7. National home improvement store (Home Depot, Lowe's)
8. Buying Club (Costco, Sam's)
9. Online store
10. Other (Please specify below) **R16_OTH**
11. (Don't read) Don't know

***If Q14 <> 4 & RSTORE = 0, Skip to R18**

R17. Did you see any retail store display information about water heaters that was helpful to your purchase?

1. Yes
2. No
3. (Don't read) Don't know

PAGE3 (R18-R19)

R18. How many water heaters did you consider?

1. One
2. 2-3
3. 4 or more
4. (Don't read) Don't know

R19. Who selected the new water heater you purchased?

1. Myself/my spouse did
2. My/Our contractor did
3. (Don't read) Don't know

PAGE4 (R20-R21)

R20. Which of the following additional sources of information, if any, did you use to decide on which water heater to purchase? (Select all that apply)

1. Internet
2. Utility help desk or utility website
3. Salesperson
4. Yellow Energyguide label
5. Word of mouth
6. Other (Please specify below) **R20_OTH**
7. (Don't read) Don't know

R21. Which statement best describes how you typically behave when you have a straight-forward home improvement project? (If needed: It would be something that takes several hours but no more than a day to do)

1. I hire a contractor to take care of everything
2. I purchase the supplies and then hire a contractor to install
3. I purchase the supplies and do the installation myself
4. (Don't read) It depends on the project
5. (Don't read) Don't know

PAGE5 (statement)

Now I'd like to hear more about what factors may have affected you as you were selecting your new water heater. Could you please tell me how important each of the following factors was on a scale of 1 to 5 with 1 being "not at all important" and 5 being "very important". **R22A-R22L randomized**
Interviewer click NEXT to continue

R22A. Price

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22B. Tank life

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22C. Energy efficiency or operating costs

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22D. Size of the unit

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22E. Brand

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22F. Recommendation from salesperson/contractor

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22G. Rebate or other incentive

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22H. Color or design

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22I. Warranty

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22J. Energy Star seal

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22K. Availability / in stock

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R22L. Quiet / Noise level

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

R23. Were there any other factors that affected your decision? (**open end**)

R24. Did you get prices from more than one source? (If necessary: "Source" might be a plumber, contractor, or store)

1. Yes
2. No (**Skip to R24B**)
3. (Don't read) Don't know (**Skip to R25**)

R24A. Was price the most important factor to you in purchasing your new water heater, one important factor but not the only thing you considered, somewhat of a consideration but other factors were more important or not important to you at all?

1. Most important
2. One important factor
3. Somewhat of a consideration
4. Not important at all
5. (Don't read) Don't Know

***Skip to R25**

R24B. Why didn't you shop around? (Select all that apply)

1. I trust my contractor/plumber to make the right decision
2. My contractor got the best price for me
3. No time to research
4. Did not care
5. I used the same brand or supplier I have used in the past
6. Other (Please specify below) **R24B_OTH**
7. (Don't read) Don't know

R25. Were you aware of any of the following water heater tax credits, incentives, or rebates by purchasing your water heater?

R25A. State tax credit

1. Yes
2. No
3. (Don't read) Don't know

R25B. Utility

1. Yes
2. No
3. (Don't read) Don't know

R25C. Manufacturer

1. Yes
2. No
3. (Don't read) Don't know

R25D. Retailer

1. Yes
2. No
3. (Don't read) Don't know

R26. Did you or do you intend to apply for a rebate for the new water heater?

1. Yes
2. No
3. (Don't read) Don't know

R27. Did you or do you intend to apply for a tax credit for the new water heater?

1. Yes
2. No
3. (Don't read) Don't know

R28. What was the approximate cost of your new water heater unit, including any installation costs?

1. Less than \$400 dollars
2. \$401-\$500
3. \$501-\$750
4. \$751-\$1,000
5. \$1,001-\$1,500
6. More than \$1,500
7. Don't know

PAGE6 (R29-R30)

R29. New ENERGY STAR high efficiency water heaters save you \$200 every year on your annual fuel bill by heating your water more efficiently. It is manufactured by a leading water heater manufacturer, and has the same tank life and warranties as your current water heater. Considering the water heater you just purchased, please tell me how much more, if anything, you would have been willing to pay for the ENERGY STAR water heater I described? (Repeat \$200 annual savings if they ask)

1. \$0 to \$49
2. \$50 to \$100 more
3. \$101 to \$200 more
4. \$201 to \$300 more
5. \$301 to \$400 more
6. More than \$500
7. (DON'T READ) Don't know

R30. After taxes credits and rebates, the ENERGY STAR water heater costs \$500 more than the model you purchased. If this water heater had been available when you were shopping for your new water heater, how likely would you have been to purchase it? (READ IN ORDER) (Repeat \$200 annual savings on their fuel bill if they ask)

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not at all likely
5. (Don't read) Don't Know

***Skip to C (demographic section)**

PINTRO. Are you the person in the home who makes purchasing decisions about home appliances, including such items as furnaces and hot water heaters?

1. Yes
2. No **(see note below)**

Interviewer If No, Ask: "Who makes the decisions? Are they available?", schedule a callback to interview the person at the home who approved the plumber's purchase. If a call back is refused, please end and code as mid-term refusal.

If Interviewer selects "No" or "Don't Know" TERMINATE – Dispo 28 (DM2)

IF POTENTIAL QUOTA MET, TERMINATE – DISPO 32

P2. Approximately how old is your existing water heater? (An estimate is fine)

1. Under 5 years old **(TERMINATE – Dispo 29)**
2. 5-10 years old
3. 11-15 years old
4. 16-20 years old
5. 21+ years old
6. (Don't read) Don't Know

PAGE7 (P3-P4)

P3. Where is your current water heater located?

1. Basement
2. Garage
3. Kitchen
4. Utility Area
5. Other (Please specify below) **P3_OTH**
6. (Don't read) Don't know

P4. Which type of water heater do you have now? (Read list)

1. Standard water heater
2. Tankless / On Demand **(Skip to P5)**
3. Heat pump / Hybrid **(Skip to P5)**
4. Other (Please specify below) **P4_OTH (Skip to P5)**
5. (Don't read) Don't know **(Skip to P5)**

PAGE8 (P4A-P4B)

P4A. Is the water heater electric or gas?

1. Electric
2. Gas
3. (Don't read) Don't know

P4B. What is the tank size of the water heater you have now? (Read if necessary)

1. Less than 40 gallons
2. 40 gallons
3. 50 gallons
4. 65 gallons
5. 75 gallons
6. 80 gallons
7. 120 gallons
8. Other (Please specify below) **P4B_OTH**
9. (Don't read) Don't know

PAGE9 (P5-P6)

P5. What fuel do you NOW use to heat your water?

1. Electric
2. Natural gas
3. Electric with solar backup
4. Solar
5. Oil/Propane/Wood/Other
6. (Don't read) Don't know

P6. What brand of water heater do you have? (DO NOT READ LIST)

1. Rheem or Ruud
2. AO Smith
3. Maytag
4. State Industries
5. Bradford White
6. American Water Heater
7. Kenmore or Sears
8. Reliant
9. Apollo
10. Rinnai Tankless unit
11. Bosch
12. Takagi
13. Other (Please specify below) **P6_OTH**
14. (Don't read) Don't know

PAGE10 (P7-P8)

Many homeowners will replace their water heater at some point—either when it fails suddenly or for a number of other reasons.

P7. You said earlier your water heater is [redacted] years old (*pipe answer from P2, if said DK show "You said earlier you were unsure of the age of your water heater"*). Have you considered replacing the unit before it fails?

1. Yes
2. No
3. (Don't read) Don't know

P8. Even if you haven't thought about this yet, how likely are you to buy the same type of water heater? Are you very likely, somewhat likely, not very likely or not likely at all?

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not likely at all
5. (Don't read) Don't know

P9. What would be the first step you would take to replace your water heater? (*DON'T READ LIST*)

1. Call a plumber (**Skip to P10**)
2. Call a contractor (**Skip to P10**)
3. Research on the internet, go online (**Skip to P10**)
4. Go to a store
5. Called a friend or family member (**Skip to P10**)
6. Other (Please specify below) **P9_OTH (Skip to P10)**
7. (Don't read) Don't know (**Skip to P11**)

***If P9 <4, skip to P10**

P9B. What kind of store(s) would you visit? (DON'T READ LIST – Select all that apply)

1. Plumbing supply store (George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)
2. Local (non-chain) hardware store
3. Chain hardware store (Ace Hardware, True Value Hardware)
4. Chain store (Sears)
5. National home improvement store (Home Depot, Lowe's)
6. Buying Club (Costco, Sam's)
7. Online store
8. Other (Please specify below) **P9B_OTH**
9. (Don't read) Don't know

P10. Would you also talk to or go to... (Please select all that apply) **(list will not show what selected in P9)**

1. Plumber
2. Contractor
3. On the internet to do research
4. To a store
5. A friend or family member
6. None of the above

P11. Which statement best describes how you typically behave when you have a straight-forward home improvement project? (If needed: It would be something that takes several hours but no more than a day to do)

1. I hire a contractor to take care of everything
2. I purchase the supplies and then hire a contractor to install
3. I purchase the supplies and do the installation myself
4. (Don't read) It depends on the project
5. (Don't read) Don't know

P12. Who would make the final decision on which new water heater to purchase?

1. Myself/my spouse would
2. My/our contractor would
3. Other
4. Don't know

P13. Would you use the internet... (Select all that apply)

1. To do initial research on water heaters
2. To learn more about water heaters after talking with someone or going to a store
3. To purchase a water heater
4. (Don't read) Don't know

P14. How often do you research home appliance purchases on the internet?

1. Always
2. Often
3. Sometimes
4. Rarely
5. Never
6. (Don't read) Don't know

PAGE11 (statement)

Now I'd like to hear more about what factors may affect you as you in selecting a new water heater.

Could you please tell me how important each of the following factors would be on a scale of 1 to 5 with 1 being "not at all important" and 5 being "very important". **P15A-P15L randomized**

Interviewer click NEXT to continue

P15A. Price

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15B. Tank life

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15C. Energy efficiency or operating costs

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15D. Size of the unit

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15E. Brand

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15F. Recommendation from salesperson/contractor

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15G. Rebate or other incentive

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15H. Color or design

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15I. Warranty

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15J. Energy Star seal

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15K. Availability / in stock

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15L. Quiet / Noise level

1. Not at all important
- 2.
- 3.
- 4.
5. Very important
6. (DON'T READ) Don't know

P15M. Are there any other factors that would affect your decision? (open end)

***If P4 >1 & P4 < 4, skip to P18**

PAGE12 (P16-P17)

P16. Are you aware of high efficiency water heaters such as... (Select all that apply)

1. Hybrid/Heat pump WH
2. Tankless/On demand WH
3. (DON'T READ) Have heard of neither
4. (DON'T READ) Don't know

P17. Energy efficient water heaters save customers money every year on their annual electric bill by heating water more efficiently. They are manufactured by a leading water heater manufacturer, and have the same tank life and warranties as a standard water heater. Now that you know more, would you be very likely, somewhat likely, not very likely or not likely at all to purchase an energy efficient water heater?

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not likely at all
5. (DON'T READ) Don't know

PAGE13 (P18-P19)

Now we're going to talk a bit more about prices of various water heaters.

P18. When it comes to price, is price the most important factor to you in purchasing your new water heater, one important factor but not the only thing you will consider, somewhat of a consideration but other factors will be more important or not important to you at all?

1. Most important
2. One important factor
3. Somewhat of a consideration
4. Not important at all

P19. What do you expect to pay for a new water heater unit, including any installation costs?

1. Less than \$400 dollars
2. \$401-\$500
3. \$501-\$750
4. \$751-\$1,000
5. \$1,001-\$1,500
6. More than \$1,500
7. Don't know

PAGE14 (P20-P21)

P20. A new ENERGY STAR water heater saves you \$200 every year on your annual fuel bill by heating your water more efficiently. They are manufactured by a leading water heater manufacturer and have the same tank life and warranties as your current water heater. Please tell me how much more, if anything, you would be willing to pay for the ENERGY STAR water heater I described? (*DO NOT READ LIST, REPEAT \$200 ANNUAL SAVINGS IF THEY ASK*)

1. \$0 to \$49
2. \$50 to \$100 more
3. \$101 to \$200 more
4. \$201 to \$300 more
5. \$301 to \$400 more
6. More than \$500
7. (DON'T READ) Don't know

P21. After taxes credits and rebates, the ENERGY STAR water heater costs \$500 more than a standard water heater. If this water heater is available when you are shopping for your new water heater, how likely will you be to purchase it? (Repeat annual \$200 savings on their fuel bill if they ask)

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not at all likely
5. (DON'T READ) Don't Know

P22. Are you aware of any of the following water heater tax credits, incentives, or rebates by purchasing an ENERGY STAR water heater?

P22A. State tax credit

1. Yes
2. No
3. (Don't read) Don't know

P22B. Utility

1. Yes
2. No
3. (Don't read) Don't know

P22C. Manufacturer

1. Yes
2. No
3. (Don't read) Don't know

P22D. Retailer

1. Yes
2. No
3. (Don't read) Don't know

PAGE15 (P23-P24)

P23. If rebates were available for a new water heater you purchased, would you apply for one?

1. Yes
2. No
3. (Don't read) Don't know

P24. If you were to purchase a new high efficiency water heater, would you apply for a tax credit?

1. Yes
2. No
3. (Don't read) Don't know

PAGE16 (P25-P27)

P25. If you could finance your water heater through your utility and pay a monthly charge for an energy efficient model, how likely would you be to participate in this program?

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not likely at all
5. (DON'T READ) Don't know

P26. If you could get interest-free financing for six to 12 months on an energy efficient water heater, how likely would you be to participate in this program?

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not likely at all
5. (DON'T READ) Don't know

P27. Of all the options available to motivate or encourage customers to purchase an energy efficient water heater, which of these is the most appealing to you?

1. A rebate after purchasing
2. A tax credit
3. Interest-free financing
4. Monthly payments through your utility
5. (DON'T READ) None
6. (DON'T READ) Don't know

***This is where the 2 surveys meet back up!**

I have only a few questions to characterize your household before we finish...

QC. Do you own your home or do you rent?

1. Own
2. Rent
3. (DON'T READ) DK/Refused

QD. Which of the following best describes your educational background?

1. Some high school
2. High school graduate
3. Trade or technical school
4. Some college
5. College graduate
6. Some graduate school
7. Graduate degree
8. (DON'T READ) DK/Refused

QE. Which of the following categories includes your age?

1. 18 to 24
2. 25 to 34
3. 35 to 44
4. 45 to 54
5. 55 to 64
6. Over 65
7. (DON'T READ) DK/Refused

QF. Lastly, which of the following categories contains your annual household income from all sources in 2010 before taxes?

1. Less than \$20,000 per year
2. \$20,000 to \$49,000
3. \$50,000 to \$74,000
4. \$75,000 to \$99,000
5. \$100,000 or more
6. (DON'T READ) DK/Refused

That's all the questions I have for you. Thank you very much for your time and opinions.

VERNM. For verification, my I have your first name

[INTERVIEWER: READ STATEMENT ABOVE, SAY GOOD BYE TO THE RESPONDENT, THEN

ENTER YOUR INITIALS AND TYPE A "1" IN THE BOX BELOW AND CLICK NEXT]

THANKYOU. Interviewer initials

Installer Phone Interview 13 MINUTES

Respondent ID _____

Respondent Zip _____

Hello, my name is _____ and I'm calling on behalf of the Northwest Energy Efficiency Alliance. Six years ago, NEEA contacted installers like you to study the residential water heater market and since then, there have been many changes. As a market leader, we would like to hear about your observations from the field.

(IF NECESSARY): This will only take a few minutes of your time. Are you willing to participate?

A. Can you confirm that you or your company installs residential water heaters?

YES (CONTINUE)

NO (PROBE TO DETERMINE IF THEY ARE A
RETAILER/DISTRIBUTOR/WHOLESALE OR MANUFACTURER. TRANSITION TO
THE APPROPRIATE SURVEY. IF NONE, TERMINATE.)

(* Identifies key numerically based questions)

Introduction

1. *How many stores/outlets/locations do you have in the Northwest?	_____
2. What parts of OR, ID, WA and MT does [company name] serve? <i>Get some distinction of rural versus well populated for each state.</i>	MT _____ ID _____ OR _____ WA _____
3. *How many installers are on your team? <i>(get a number not a range)</i>	_____

Sales Figures

4. *How many residential water heater units did you install last year in your area? <i>Get the total by state if they serve more than one state. (get a number not a percentage)</i>	_____
5. Was this more or fewer water heaters than in the year before? By how many? <i>Or get percent increase or decrease if no total is available.</i>	More by _____ units OR _____% Fewer by _____ units OR _____%
6. *How many residential water heaters do you expect to install this year? <i>Get percent increase or decrease if no total available.</i>	_____ UNITS OR _____% Increase _____ % Decrease
7. *What percentage do water heater installations make up of your total business?	_____ %

8. Which are your two main water heater brands?	Open Ended	
9. *What percentage of your water heater installations are gas versus electric? <i>(should total 100%)</i>	Gas _____% Elec. _____% Other _____%	
10. *What percentage of your total water heater installations includes replacing an electric water heater with a gas unit?	_____ %	
11. What are the biggest barriers for conversions from electric to gas (other than no gas in building)? <i>Probe for cost and specifics.</i>	Open Ended	
12. *What percentage of the following water heaters do you install that are electric? Gas? Tankless/ on demand units? Indirect?	Tankless/ OD Elec _____% Indirect Elec _____% Don't Know	Tankless/ OD Gas _____% Indirect Gas _____% Don't Know

<p>13. Do you install heat pump (or hybrid) water heaters?</p> <p>13a. If yes, what percentage of your total installs are heat pump units?</p>	<p>1. Yes 2. No 3. Don't Know</p> <p>_____ %</p>	
<p>14. Why do you think this percentage is so low? <i>Probe for ideas as to market barriers specifically around heat pumps.</i></p>	<p>Open Ended</p>	
<p>15. If no to Q13, why not? <i>Probe to understand the barriers to heat pump water heater installations. Complexity? Training? Awareness? Time? Other?</i></p>	<p>Open Ended</p>	

Marketing Activities and Trends

<p>16. What percentage of your water heaters come from the following channels? <i>other, probe for details</i></p>	<p>Retailer ____ % Distributor _____ % Other _____ %</p>
<p>17. How regularly are you in contact with the sales representatives that supply the water heaters you install?</p>	<p>1. Once a week or more 2. Several times a month 3. Once a month 4. Once or twice a quarter 5. Less than once a quarter</p>

<p>18a. What percentage of your installations are water heaters you resell to customers?</p> <p>b. What percentage of your installations are water heaters your customers purchase directly from retailers or distributors</p>	<p>_____ %Resell to customers</p> <p>_____ %Customer Purchase Direct</p>
<p>19a. Do you do any active marketing for your installation services?</p> <p>19b. If yes, What do you do?</p>	<p>1 Yes 2 No</p> <p>Open Ended</p>
<p>20. In your opinion, if a customer needs a new water heater, where do they typically go to get information or start the process? <i>(DO NOT READ)</i></p>	<p>1. Big Box Store (Home Depot, Lowe’s) 2. Hardware Store (TruValue) 3. Installer 4. Internet/Online 5. Public Utility Other, specify</p>
<p>21a. How much do you know about the latest trends in water heaters?</p> <p>21b. <i>[If a lot, or some at 21a.]</i> Where are you getting this information from?</p>	<p>1. A lot 2. Some 3. Not much, just the names of brands 4. Nothing</p> <p>Open Ended</p>

<p>22a. What percentage of water heater installations is for new construction?</p> <p>22b. What percentage of water heater installations is replacements?</p> <p>22c. What percentage of your business is a result of emergency replacements versus planned replacements?</p>	<p>_____ % New Construction</p> <p>_____ % Replacements</p> <p>_____ % Emergence Replacements _____ % Planned Replacements</p>
<p>23. What are the most important factors you (and customers) consider when selecting a water heater for emergency replacement? <i>Try to find out how much thought goes into the equipment choice or if customers leave the decision to the installer.</i></p>	<p>Open Ended</p>
<p>24. What are the most important factors you (and customers) consider in order to get a planned replacement installed? <i>Try to find out how much thought goes into the equipment choice or if customers leave the decision to the installer.</i></p>	<p>Open Ended</p>

<p>25. In your opinion, do customers typically “shop around” for water heaters and make their purchasing decision on their own, or do they rely on a trusted source for information?</p>	<p>1. Shop Around 2. Rely on Trusted Source</p>
<p>26. What are the biggest barriers to getting customers to buy more high efficiency water heaters?</p>	<p>Open Ended</p>
<p>27. How often do you discuss energy savings and high efficiency appliances with potential water heater customers?</p>	<p>1. All the time 2. Most of the time 3. Sometimes 4. Never</p>

Installation Details & Financing

<p>28. *What is the average amount you charge a customer for a <gas/electric> water heating unit?</p>	<p>Gas _____ Electric _____</p>
<p>29a. What is your average cost of installation of a water heater? 29b. Is there a difference between gas and electric? <i>if so, probe to clarify</i> 29c. [If 29b=Yes] What is the difference?</p>	<p>_____ 1. Yes 2. No _____</p>
<p>30. Do you offer warranties on your installations? Or the equipment?</p>	<p>Installation 1. Yes 2. No Equipment 1. Yes 2. No</p>
<p>31. Do you provide customers with information about efficiency tax credits?</p>	<p>1. Yes 2. No</p>

<p>32a. Do any of the utilities in your area offer rebates on water heaters?</p> <p>32b. If yes, do you participate in these water heater rebates?</p> <p>32c. [If 32b=Yes] How?</p>	<p>1. Yes 2. No</p> <p>1. Yes 2. No</p> <p>Open Ended</p>
<p>33. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high efficiency, higher cost water heaters by consumers?</p>	<p>Open Ended</p>
<p>34. NEEA is looking for ways to help improve the market for high efficiency water heaters in the Northwest. Do you have any suggestions for ways that NEEA can help installers like you install more high efficiency units?</p>	<p>Open Ended</p>

Participant Contact Information

<keep Separate from the survey results>

Respondent ID _____

<<If there were other companies (up or down the chain, competitors or not) you should try to get contact names if possible to help us find other interviewees.>>

Are there any other colleagues we should talk to?

If they don't want to share contact names/info:

If you know of any other colleagues who might like to participate, please have them email us at **inquiry@verinnovation.com**. We would be happy to include them in our study.

Closer:

Thank you for participating in the NEEA Water Heater Market Study today. *<Read the following only if they are NOT a part of the employee interviews at Sears>*We will enter you in our drawing for a free iPad.

Respondent Name _____

Respondent Company _____

Respondent Phone Number _____

Referral Names and Contact Info

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Manufacturer Phone Interview

Respondent ID _____

Respondent Zip _____

Hello, my name is _____ and I am contacting you on behalf of the Northwest Energy Efficiency Alliance (also known as NEEA). Six years ago, NEEA contacted manufacturers like you to study the residential water heater market and since then there have been many changes. As a market leader, we would like to hear about your observations in this business.

(IF NECESSARY): This will only take a few minutes of your time. Are you willing to participate?

A. Can you confirm that your company manufactures residential water heaters?

YES (CONTINUE)

NO (PROBE TO DETERMINE IF THEY ARE AN INSTALLER OR A RETAILER/DISTRIBUTOR/WHOLESALE. TRANSITION TO THE APPROPRIATE SURVEY. IF NONE, TERMINATE)

(* Identifies key numerically based questions)

Sales Figures

Let's start by asking some sales data

1. *How many residential water heater units did you sell last year in the US?	_____
2. *Can you estimate your national market share? <i>Be sure to get this if they won't/can't give units.</i>	_____%
3. *How many residential water heater units did you sell last year in the four state area—the area that includes WA, OR, MT, and ID?	_____
4. *Can you estimate your market share in these four states? <i>Be sure to get this if they won't/can't give units.</i>	_____%
5. *What percentage of your total US sales comes from these states?	_____%

Next I want to ask how your sales figures break down by the type of water heater. Please answer for your sales in the four state area (the Northwest). *If they can't answer in the Northwest, then get the National information instead.*

6. *How many different models of residential water heaters do you sell across OR, WA, ID and MT?	_____
--	-------

<p>7. *What percentage of your water heater sales are gas versus electric?</p>	<p>Gas _____%</p>	<p>Elec _____%</p>
<p>8. What other types of fuels do your water heaters use? <i>If other, ask what types of fuel they are.</i></p>	<p>1. Propane 2. Solar 3. Fuel Oil Other, specify</p>	
<p>9. * What percentage of your gas/electric water heater sales are tankless? Indirect units? Heat pump water heaters (also known as hybrid water heaters)? <i>By fuel. Tankless can also be referred to as on demand.</i></p>	<p>Gas Tankless _____% Indirect _____% Hybrid _____%</p>	<p>Elec Tankless _____% Indirect _____% Hybrid _____%</p>
<p>10a.*What percentage of your <gas, electric> tanks are: Less than 40 gallons 40 to 60 gallons Over 60 gallons <i>By fuel. (if too much, ask whether there's any difference by fuel type in the sizes they sell. If they sell tankless, this question does not apply)</i></p> <p>10b. Is there any difference by fuel type in the sizes of water heaters you sell?</p>	<p>Gas _____% _____% _____%</p> <p>1. Yes 2. No</p>	<p>Electric _____% _____% _____%</p>
<p>11. *What percentages of your water heater sales are made directly to large homebuilders? Retailers? Wholesalers? Other? <i>By fuel.</i></p>	<p>Gas Lg Home Builders _____% Retailers _____% Wholesalers _____% Other _____%</p>	<p>Elec Lg Home Builders _____% Retailers _____% Wholesalers _____% Other _____%</p>

Marketing Activities

<p>12. What distribution channels do you typically use to sell water heaters in the four-state region? <i>If other, probe for more detail</i></p>	<ol style="list-style-type: none"> 1. Big box retailers (Home Depot/Lowe's), 2. Manufacturer-affiliated wholesalers 3. Plumbing supply houses, 4. Network of installers 5. Other, Specify
<p>13. Can you describe what your sales and distribution process looks like? For example, how do resellers of your products place orders (by phone, on the web)? <i>Try to get them talking and let them explain how it works...as they talk try to get names of larger distributors/retailers and try to get them to identify what % of units move through each channel.</i></p>	<p>Open Ended</p>
<p>14. How do you differentiate your water heaters from the competition?</p>	<p>Open Ended</p>

<p>15a. Who in your industry do you see as the overall sales leader?</p>	<p>Open Ended</p>
<p>15b. Why do you see them as the overall sales leader?</p>	<p>Open Ended</p>
<p>15c. Who in your industry do you see as the overall innovation leader?</p>	<p>Open Ended</p>
<p>15d. Why do you see them as the overall innovation leader?</p>	<p>Open Ended</p>
<p>16a. Do you have any incentives or reseller programs for dealers, retailers, and representatives of your water heaters?</p> <p>16b [if 16a=Yes] Can you describe your most effective program? <i>Probe cautiously to understand their marketing strategy as much as possible.</i></p>	<p>1. Yes 2. No</p> <p>Open Ended</p>
<p>*17. In your estimation, what percentage of orders results from end users/consumers who visit your website in search of information about water heaters?</p>	<p>____%</p>
<p>18. Does your web site provide a searchable listing of dealers?</p>	<p>1. Yes 2. No</p>

Market Trends and Efficiency

<p>19. What current trends in the water heater industry are having the biggest impact on your company? <i>Probe for not only product trends, but also ask about sales/distribution trends.</i></p>	<p>Open Ended</p>
<p>20. What high efficiency water heaters do you currently offer? <i>If other, get specific types</i></p>	<ol style="list-style-type: none"> 1. Tankless/On Demand 2. Heat Pump/Hybrid 3. Indirect 4. Other, specify
<p>21. What are your plans for manufacturing more high efficiency water heaters?</p>	<p>Open Ended</p>

<p>22. What do you think are the biggest barriers to increasing the percentage of heat pump water heaters in the market? <i>Ask even if they do not manufacture them now.</i></p>	<p>Open Ended</p>
<p>23. What do you think could increase the percentage of heat pump water heaters? <i>Probe for specific suggestions.</i></p>	<p>Open Ended</p>
<p>24. What other types of high efficiency water heaters are facing barriers? What recommendations do you have to overcome those barriers?</p>	<p>Open Ended</p>
<p>25. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high efficiency, higher cost water heaters by consumers?</p>	<p>Open Ended</p>

<p>26. NEEA is looking for ways to improve the market for high efficiency water heaters in the Northwest. Do you have any suggestions for ways that NEEA can help manufacturers like yourself design and deliver more high efficiency units?</p>	<p>Open Ended</p>
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Participant Contact Information

<keep Separate from the survey results>

Respondent ID _____

<<If there were other companies (up or down the chain, competitors or not) you should try to get contact names if possible to help us find other interviewees.>>

Are there any other colleagues we should talk to in your company? What about colleagues at other companies?

If they don't want to share contact names/info:

If you know of any other colleagues who might like to participate, please have them email us at **inquiry@verinnovation.com**. We would be happy to include them in our study.

Closer:

Thank you for participating in the NEEA Water Heater Market Study today. We will enter you in our drawing for a free iPad.

Respondent Name _____

Respondent Company _____

Respondent Phone _____

Referral Names and Contact Info

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

**Retailer/Distributors/Wholesalers Phone Interview
12 MINUTES**

Respondent ID _____

Respondent Zip _____

Hello, my name is _____ and I am calling on behalf of the Northwest Energy Efficiency Alliance, also known as NEEA. Six years ago, NEEA contacted distributors, retailers, and wholesalers like you to study the residential water heater market, and since then there have been many changes.

(IF NECESSARY): This will only take a few minutes of your time. Are you willing to participate?

A. Can you confirm that your company is a distributor or sells residential water heaters?

YES (CONTINUE)

NO (PROBE TO DETERMINE IF THEY ARE AN INSTALLER OR MANUFACTURER. TRANSITION TO THE APPROPRIATE SURVEY. IF NONE, TERMINATE.)

B. Does your company also do installations? *If no, continue with interview. (IF YES, ASK of those NOT part of the Sears employee interviews):* We are also interested in speaking directly with installers. Could you give me a name and phone number of someone who may be available to talk with us?

_____ (collect name/phone of installer)

(* Identifies key numerically based questions)

Sales Figures

<p>1. What parts of OR, ID, WA and MT does your company serve? <i>Circle which states, add sector</i></p>	<p>OR _____</p> <p>WA _____</p> <p>ID _____</p> <p>MT _____</p>	
<p>2. *How many residential water heater units did you sell last year in the Northwest? <i>Get the percent or total by state if they serve more than one state.</i></p>	<p>OR _____</p> <p>WA _____</p> <p>ID _____</p> <p>MT _____</p>	
<p>3. *Was this more or fewer water heaters than the year before? By how many? <i>Or get percent increase or decrease if no total is available.</i></p>	<p>More By _____ Units or _____ %</p>	<p>Fewer By _____ Units or _____ %</p>

4. *How many residential water heaters do you expect to sell this year? <i>Get percent increase or decrease if no total available.</i>	_____	
5. Are you one of the major suppliers of water heaters in this region?	1. Yes 2. No 3. Unknown	
6. *What percentage of your water heater sales are gas versus electric? <i>Should total 100%</i>	Gas _____% Elec _____% Other _____%	
7a. What brands do you sell? * Can you provide the percentage of each that you sell? <i>By fuel if there are differences.</i>	Gas Brands	% of Total
	Electric Brands	% of Total

<p><i>If percentages are not available for all:</i> 7b. Which are your two main water heater brands? Or which brands make up more than half of your sales?</p>	Open Ended	
<p>8. *What percentage of your gas/electric water heater sales is to the new construction market?</p>	Gas _____%	Elec _____%
<p>9. *What percentage of your gas/electric water heater sales is to the replacement market? <i>Should be 100%-Q8, but confirm.</i></p>	Gas _____%	Elec _____%
<p>10. *What percentage of your replacement sales result from emergency versus planned replacements?</p>	Emergency _____%	Planned _____%
<p>11. *What percentage of your gas/electric water heater sales are tankless (or on demand)? Indirect units? Heat pump water heaters (also known as hybrid water heaters)? <i>By fuel.</i></p>	Gas Tankless _____% Indirect _____% Hybrid _____%	Electric Tankless _____% Indirect _____% Hybrid _____%
<p>12. Why do you think heat pump water heaters are a small percentage of the overall market? <i>Probe for ideas as to market barriers specifically around heat pumps.</i></p>		
<p>13. *What percentage of your <gas, electric> tanks are: Less than 40 gallons 40 to 60 gallons Over 60 gallons <i>By fuel.</i></p>	Gas _____% _____% _____%	Electric _____% _____% _____%
<p>14. *What are the top-selling premium features in the <gas, electric> water heater market? <i>Might include tankless, forever tank, or stainless steel. By fuel.</i></p>	Gas Open Ended	Electric Open Ended

	Gas	Elec	Other
15. *To whom do you sell your water heaters (as a percentage)? <i>By fuel.</i>			
Retailers	_____ %	_____ %	_____ %
Installers	_____ %	_____ %	_____ %
Direct to Consumers	_____ %	_____ %	_____ %
Builders/Contractors	_____ %	_____ %	_____ %
Other _____	_____ %	_____ %	_____ %

Marketing Activities and Trends

16. What do you perceive are the latest trends in water heating products?	Open Ended
17. How regularly are you in contact with the sales representatives who supply your water heaters? (READ):	<ol style="list-style-type: none"> 1. Once a week or more 2. Several times a month 3. Once a month 4. Once or twice a quarter 5. Less than once a quarter
18. Please walk me through how your top customers buy from you. <i>Probe to get detailed information on the sales process.</i>	Open Ended

<p>19. Please describe the supply chain and the process you use to get your water heaters. <i>Be sure to identify the type of players and how they interact with that company (dedicated representative, field visits, sales staff, etc.)</i></p>	<p>Open Ended</p>
<p>20a. Do you have different sales strategies or techniques for different regions around the Northwest?</p> <p>20b. If so, can you describe some of the differences and the regions they address?</p>	<p>1. Yes 2. No</p> <p>Open Ended</p>
<p>21. Who in your industry do you see as the overall sales leader? Why?</p>	<p>Open Ended</p>

Sales Process

<p>22. In your opinion, if a customer needs a new water heater, where do they typically go to get information or start the process?</p>	<p>1. Big Box Store (Home Depot, Lowe's) 2. Hardware Store (TruValue) 3. Installer 4. Internet/Online 5. Public Utility Other, specify</p>
---	---

<p>23. In your opinion, do customers typically “shop around” for water heaters, or do they rely on a trusted source for information?</p>	<p>1. Shop Around 2. Rely on Trusted Source</p>
<p>24. *In your estimation, what percentage of orders result from end users/consumers who visit your website in search of information about water heaters?</p>	<p>____%</p>
<p>25. Do you offer any incentives for the end user/consumer on particular water heater models?</p>	<p>1. Yes 2. No</p>
<p>26. Do you provide customers with information about efficiency tax credits?</p>	<p>1. Yes 2. No</p>
<p>27a. Do any of the utilities in your area offer rebates on water heaters?</p> <p>27b. If yes, do you participate in these water heater rebates?</p> <p>27c. [if yest to Q27b] How?</p>	<p>1. Yes 2. No</p> <p>1. Yes 2. No</p> <p>Open Ended</p>
<p>28. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high efficiency, higher cost water heaters by consumers?</p>	<p>Open Ended</p>

<p>29. NEEA is looking for ways to improve the market for high efficiency water heaters in the Northwest. Do you have any suggestions for ways that NEEA can help suppliers like yourself sell and distribute more high efficiency units?</p>	<p>Open Ended</p>
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Participant Contact Information

<keep Separate from the survey results>

Respondent ID _____

<<If there were other companies (up or down the chain, competitors or not) you should try to get contact names if possible to help us find other interviewees.>>

Are there any other colleagues we should talk to in your company? What about colleagues at other companies?

If they don't want to share contact names/info:

If you know of any other colleagues who might like to participate, please have them email us at **inquiry@verinnovation.com**. We would be happy to include them in our study.

Closer:

Thank you for participating in the NEEA Water Heater Market Study today. *<Read the following only if they are NOT a part of the employee interviews at Sears>* We will enter you in our drawing for a free iPad.

Respondent Name _____

Respondent Company _____

Respondent Phone _____

Referral Names and Contact Info

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Name _____ Phone _____ Email _____

Water Heater Market Supplier Survey

This survey seeks input from water heater suppliers to learn more about the market. This information will be used for research purposes only. No identifying information will be shared with any third party organization or the client for this study. Your personal information will not be used for any purpose outside of conducting this survey. For more information about our Privacy Policy, please visit our [survey privacy policy page](#). This survey takes 15-18 minutes to complete.

1. Do you manufacture, sell, install, or repair water heaters? *

- Yes
- No

NOTE: This document does not include any formatting, logic, validation, or skip patterns as evidenced in the live online surveys.

2. Which of the following categories best describes you? *

- Manufacturer of residential water heaters
 - Distributor of residential water heaters
 - Wholesaler of residential water heaters
 - Retailer of residential water heaters
 - Installer/Repairer of residential water heaters
 - None of the above
-

~~Thank you for taking our survey. Your response is very important to us.~~

Water Heater Manufacturer Survey

1. How many residential water heater units did you sell last year in the U.S.? *

2. What is your estimated national market share for the U.S. (percentage)? *

3. How many residential water heater units did you sell last year in Washington, Oregon, Montana, and Idaho? *

4. What is your estimated market share in this four-state area (the Northwest)? *

5. What percentage of your total U.S. sales come from these states? *

6. How many different models of residential water heaters do you sell across the four-state region? *

7. What percentage of the residential water heaters you manufacture use gas, electric, or another fuel? *

Gas

Electric

Other

NOTE: This document does not include any formatting, logic, validation, or skip patterns as evidenced in the live online surveys.

8. What other fuels do your water heaters use?

Propane

Fuel oil

Other, specify

9. What percentage of tankless (or on demand) water heaters do you manufacture by fuel (if none, enter 0)?

Gas

Electric

Other

10. What percentage of indirect water heaters do you manufacture by fuel (if none, enter 0)?

Gas

Electric

Other

11. What percentage of heat pump (or hybrid) water heaters do you manufacture (if none, enter 0)? *

12. If you entered 0 for heat pump water heaters, why do you not sell these types of units?

13. Please break down the percentage of your standard water heater sales by tank size.

	Gas	Electric
Less than 40 gallons *	<input type="text"/>	<input type="text"/>
40 to 60 gallons *	<input type="text"/>	<input type="text"/>

Over 60 gallons *

14. What percentage of all your water heater sales are made to: *

	Gas	Electric	Other
Retailers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Installers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Large Home Builders *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other *	<input type="text"/>	<input type="text"/>	<input type="text"/>

15. What distribution channels do you typically use to sell water heaters in the four-state region?

- Big box retailers (e.g. Home Depot, Lowe's, Sears)
- Manufacturer-affiliated wholesalers
- Plumbing supply houses
- Network of installers
- Other, specify:

16. What percentage of your water heater units are sold through the following channels?

- Large retailer distribution centers (e.g. Home Depot, Lowe's, Sears)
- Chain hardware distribution centers
- Local hardware distribution centers
- Plumbing supply house wholesalers
- Purchasing co-ops
- Other

17. Which benefits do you offer your resellers and distributors?

- Pre-sales support
- Phone-based technical support

- Field support
- Leads
- Sales and pricing tools
- Financial incentives
- Co-marketing programs
- Technical training
- Web-based technical support
- Product pre-release information
- Reseller newsletter
- Online reseller portal
- Customized reseller support
- Other benefit
- None of the above

18. What percentage of sales originate from the following channels? *

- Internal sales rep
- Independent Sales Rep
- Online order system
- Phone/call center
- Fax orders
- Other

19. Does your website provide a searchable listing of dealers? *

- Yes
- No

20. How do you differentiate your water heaters from the competition? *

21. Where do you get your information about the water heater market?

- Industry publications, magazines
- Trade associations

- Peers/Friends
- Training sessions
- Internet/Online websites and forums
- E-mail newsletters and news feeds
- Print newsletters
- Retailer information
- Conferences
- Government organizations
- Other, specify:

22. How would you rank the importance of the following features in the process of developing and designing your product line? *

	Not Important	Very Low	Low	Important	Very Important	Don't Know
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety features *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Premium heating elements *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Space requirements *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fuel source *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water heating speed *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/Low noise level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ease of maintenance *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Controls and displays *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank lining *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate/Incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank/unit size *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Materials (e.g. stainless steel,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

copper fittings)						
Energy Star Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temperature precision *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/In stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Color or design options *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. In your opinion, if a customer needs a new water heater, where do they typically go to get information or start the process? *

- Big box store (e.g., Home Depot, Lowe's, Sears)
- Hardware store (e.g., TruValue, Ace, Local Chain)
- Contractor or installer
- Internet/Online
- Local public utility
- Manufacturer's website
- Other, specify:

24. In your estimation, what percentage of orders result from visits to your website in search of information about water heaters? *

25. Who in your industry do you see as the overall sales leader? *

26. Who in your industry do you see as the overall innovation leader?

27. What current product and sales trends in the water heater industry are having the biggest impact on your company? *

28. Do you offer any incentives for the end user/consumer on particular water heater models? *

Yes

No

29. Do you provide customers with information about efficiency tax credits? *

Yes

No

30. What are your plans for manufacturing more high-efficiency water heaters? If you don't have any plans, please say so and indicate why not. *

31. What do you think could increase the percentage of heat pump water heaters in homes? *

32. What other types of high-efficiency water heaters are facing barriers? What recommendations to you have to overcome those barriers? *

33. What do you think are the biggest barriers to increasing the percentage of heat pump water

heaters in the market? *

34. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high-efficiency, higher cost water heaters by consumers? *

35. We are looking for ways to help improve the market for high-efficiency water heaters in the Northwest. Do you have any suggestions for ways that we can help you sell more high-efficiency units?

Thank you for completing our survey! If you'd like to be entered in our drawing for a \$50 gift card, please fill out the information below.

Winners will be notified by November 31, 2011. Limit one winner per organization. Void where prohibited.

36. First and Last Name

37. E-mail Address

38. Phone Number

39. Do you attest that you are eligible to enter this contest based on local and federal laws in the

United States of America?

- Yes
 - No
-



Thank you for taking our survey. Your response is very important to us. Winners of the drawing will be announced by November 31, 2011.

Water Heater Retailer Survey

1. What is your zip code? *

2. Which Northwest states do you serve? *

- Montana
- Idaho
- Oregon
- Washington

NOTE: This document does not include any formatting, logic, validation, or skip patterns as evidenced in the live online surveys.

3. How many locations do you have in the Northwest? *

4. What percentage of your customers live in... *

Urban areas?

Suburban areas?

Rural towns or areas?

5. Are you a major supplier of water heaters in the Northwest? *

- Yes
- No
- Don't know

6. How many residential water heater units did you sell last year in the Northwest? *

7. How many residential water heaters do you expect to sell this year? *

8. What percentage of water heater sales are for new construction? *

9. What percentage of water heater sales is replacements? *

10. What percentage of replacements is the result of an emergency replacement? *

11. Which two water heater brands do you sell most often? *

- | | |
|--|---|
| <input type="checkbox"/> Rheem or Ruud | <input type="checkbox"/> Reliant |
| <input type="checkbox"/> AO Smith | <input type="checkbox"/> Apollo |
| <input type="checkbox"/> Maytag | <input type="checkbox"/> Rinnai Tankless unit |
| <input type="checkbox"/> State Industries | <input type="checkbox"/> Bosch |
| <input type="checkbox"/> Bradford White | <input type="checkbox"/> Takagi |
| <input type="checkbox"/> American Water Heater | <input type="checkbox"/> Other, specify |
| <input type="checkbox"/> Kenmore or Sears | <input type="text"/> |

12. What other brands do you sell? *

- | | |
|--|---|
| <input type="checkbox"/> Rheem or Ruud | <input type="checkbox"/> Reliant |
| <input type="checkbox"/> AO Smith | <input type="checkbox"/> Apollo |
| <input type="checkbox"/> Maytag | <input type="checkbox"/> Rinnai Tankless unit |
| <input type="checkbox"/> State Industries | <input type="checkbox"/> Bosch |
| <input type="checkbox"/> Bradford White | <input type="checkbox"/> Takagi |
| <input type="checkbox"/> American Water Heater | <input type="checkbox"/> Other, specify |
| <input type="checkbox"/> Kenmore or Sears | <input type="text"/> |

13. What percentage of the residential water heater units you sell use gas, electric, or another fuel? *

Gas

Electric

Other

14. What percentage of your total water heater sales are tankless (or on demand)? If none, enter 0.

15. What percentage of your total water heater sales are heat pump (or hybrid)? If none, enter 0. *

16. If you entered 0 for heat pump water heaters, why do you not sell these types of units?

17. Please break down the percentage of your total standard water heater sales by tank size. If none, enter 0.

	Gas	Electric
Less than 40 gallons *	<input type="text"/>	<input type="text"/>
40 to 60 gallons *	<input type="text"/>	<input type="text"/>
Over 60 gallons *	<input type="text"/>	<input type="text"/>

18. What percentage of your water heater sales are made to... (if none, enter 0) *

	Gas	Electric	Other
Retailers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Installers *	<input type="text"/>	<input type="text"/>	<input type="text"/>

Direct to consumers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Builders/Contractors *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other *	<input type="text"/>	<input type="text"/>	<input type="text"/>

19. How regularly are you in contact with representatives that supply the water heaters you sell? *

- Once a week or more
- Several times a month
- Once a month
- Once or twice a quarter
- Less than once a quarter
- Rarely
- Never

20. On a scale of 1 to 5, with 5 being extremely high, how would you rank your knowledge of the latest trends in water heaters?

- | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| No
knowledge | 1 Extremely
Low | 2 Low | 3 Average | 4 High | 5 Extremely
High |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

21. Where do you get your information about the water heater market?

- Industry publications, magazines
- Trade associations
- Peers/Friends
- Training sessions
- Internet/Online websites and forums
- E-mail newsletters and news feeds
- Print newsletters
- Retailer information

Manufacturer information

Conferences

Government organizations

Other, specify:

22. How important are the following features to your customers when purchasing a water heater?

	Not Important	Very Low	Somewhat Important	Important	Very Important	Don't know
Space requirements *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/Low noise level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Materials (e.g. stainless steel, copper fittings) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate/Incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ease of maintenance *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temperature precision *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety features *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fuel source *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/in stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Color or design options *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank lining *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Premium heating elements *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY STAR Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Controls and displays *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank/unit size *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water heating speed *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. In your opinion, if a customer needs a new water heater, where do they typically go to get information or start the process? *

- Big box store (e.g., Home Depot, Lowe's, Sears)
- Hardware store (e.g., TruValue, Ace, Local Chain)
- Contractor or installer
- Internet/Online
- Local public utility
- Manufacturer's website
- Other, specify:

24. In your estimation, what percentage of orders result from visits to your website in search of information about water heaters? *

25. In your opinion, do more customers typically "shop around" for water heaters and make their purchasing decision on their own, or do they rely on a trusted source for information? *

- Shop around
- Rely on a trusted source

26. What are the sources that customers trust for information? *

- Retailer website
- Manufacturer website
- Industry online forums and bulletin boards
- Retail sales representatives
- Contractors, plumbers, and installers
- Industry publications, magazines
- Trade associations
- Peers/Friends

- Home improvement workshops
 - E-mail newsletters and news feeds
 - Print newsletters
 - Other retailer information
 - Other manufacturer information
 - Consumer reviews
 - Other, specify:
-

27. How often do you discuss energy savings and high-efficiency appliances with potential water heater customers? *

- All the time
 - Most of the time
 - Sometimes
 - Rarely
 - Never
-

28. Do you offer any incentives for the end user/consumer on particular water heater models? *

- Yes
 - No
-

29. Do you provide customers with information about efficiency tax credits? *

- Yes
 - No
-

30. Do any of the utilities in your area offer rebates on water heaters? *

- Yes
- No
- Don't know

31. If your utilities do offer rebates, do you participate in them? *

Yes

No

32. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high-efficiency, higher cost water heaters by consumers?

33. We are looking for ways to help improve the market for high-efficiency water heaters in the Northwest. Do you have any suggestions for ways that we can help you sell more high-efficiency units?

Thank you for completing our survey! If you'd like to be entered in our drawing for a \$50 gift card, please fill out the information below.

Winners will be notified by November 31, 2011. Limit one winner per organization. Void where prohibited.

34. First and Last Name

35. E-mail Address

36. Phone Number

37. Do you attest that you are eligible to enter this contest based on local and federal laws in the

United States of America?

- Yes
 - No
-



Thank you for taking our survey. Your response is very important to us. Winners of the drawing will be announced by November 30, 2011.

Water Heater Installer Survey

1. What is your zip code? *

2. Which Northwest states do you serve? *

- Montana
- Idaho
- Oregon
- Washington

NOTE: This document does not include any formatting, logic, validation, or skip patterns as evidenced in the live online surveys.

3. How many locations do you have in the Northwest? *

4. What percentage of your customers live in... *

urban areas?

suburban areas?

rural towns or areas?

5. How many installers are on your team? *

- 1
- 2-5
- 6-15
- 16 or more
- Not sure

6. What percentage of your installers are employees?

7. How many residential water heater units did you install last year in your area? *

8. How many residential water heaters do you expect to install this year? *

9. What percentage do water heater installations make up of your total business? *

10. Which two water heater brands do you install most often? *

Rheem or Ruud

Reliant

AO Smith

Apollo

Maytag

Rinnai Tankless unit

State Industries

Bosch

Bradford White

Takagi

American Water Heater

Other, specify

Kenmore or Sears

11. What percentage of the residential water heater that you install use gas, electric, or other fuel? If none, enter 0. *

Gas

Electric

Other

12. What percentage of your total water heater installations includes replacing an electric water heater with a gas unit? *

13. What percentage of the tankless (or on demand) water heaters that you install use gas,

electric, or another fuel? If none, enter 0.*

Gas

Electric

Other

14. What percentage of your total installs are heat pump (or hybrid) water heaters? If none, enter 0.

*

15. If you entered 0 for heat pump water heater installs, why do you not install these types of units?

16. What factors determine what types of water heaters you most often install for your customers?

*

- Orders from retail partner
- Complexity of the installation
- Availability of training
- Time to install
- Availability of the unit
- Client request for the unit
- Other, specify:

17. What percentage of water heater installations are for new construction? *

18. What percentage of water heater installations are replacements? *

19. What percentage of replacements are the result of an emergency replacement? *

20. On a scale of 1 to 5, with 1 being not at all important and 5 being most important, which factors do your customers consider when selecting a water heater?

	1	2	3	4	5	Don't Know
Color or design *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate or other incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/Noise level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size of the unit *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY STAR Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/In stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. How regularly are you in contact with the sales representatives who supply the water heaters you install? *

- Once a week or more
- Several times a month
- Once a month
- Once or twice a quarter
- Less than once a quarter
- Rarely
- Never

22. What percentage of your installations are water heaters you resell to customers? *

23. What percentage of your installations are water heaters your customers purchase directly from retailers or distributors? *

24. Do you actively market your installation services? *

- Yes
- No

25. If you actively market your services, what do you do?

26. In your opinion, if a customer needs a new water heater, where do they typically go first to get information? *

- Big box store (e.g., Home Depot, Lowe's, Sears)
- Hardware store (e.g., TruValue, Ace, Local Chain)
- Contractor, plumber or installer
- Internet/Online
- Local public utility
- Manufacturer's website
- Other, specify:

27. On a scale of 1 to 5, with 5 being extremely high, how would you rank your knowledge of the latest trends in water heaters? *

No knowledge 1 Extremely Low 2 Low 3 Average 4 High 5 Extremely High

28. Where do you get your information about the water heater market? *

- Industry publications, magazines
- Trade associations
- Peers/Friends
- Training sessions
- Internet/Online websites and forums
- E-mail newsletters and news feeds
- Print newsletters
- Retailer information
- Manufacturer information
- Conferences
- Government organizations
- Other, specify:

29. In your opinion, do more customers typically "shop around" for water heaters and make their purchasing decisions on their own, or do they rely on a trusted source for information? *

- Shop around
- Rely on a trusted source

30. What are the sources that customers trust for information?

- Retailer website
- Manufacturer website
- Industry online forums and bulletin boards
- Retail sales representatives
- Contractors, plumbers, and installers
- Industry publications, magazines

- Trade associations
- Peers/Friends
- Home improvement workshops
- E-mail newsletters and news feeds
- Print newsletters
- Other retailer information
- Other manufacturer information
- Other, specify:

31. How often do you discuss energy savings and high-efficiency appliances with potential water heater customers? *

- All the time
- Most of the time
- Sometimes
- Rarely
- Never

32. Is there a difference in cost between installing a gas and an electric water heater? *

- No
- Don't know
- Yes, specify:

33. What is the average amount that you charge for the following water heating units? Enter 0 if you do not resell that fuel type. *

- Gas
- Electric
- Other

34. Do you offer warranties on installations? *

- Yes
- No
-

35. Do you offer warranties on the equipment? *

- Yes
- No
-

36. Do you provide customers with information about efficiency tax credits? *

- Yes
- No
-

37. Do any of the utilities in your area offer rebates on water heaters? *

- Yes
- No
- Don't know
-

38. If your utilities offer rebates, do you participate in them? *

- Yes
- No
-

39. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high-efficiency, higher cost water heaters by consumers?

40. We are looking for ways to help improve the market for high-efficiency water heaters in the Northwest. Do you have any suggestions for ways that we can help you install more high-

Thank you for completing our survey! If you'd like to be entered in our drawing for a \$50 gift card, please fill out the information below.

Winners will be notified by November 31, 2011. Limit one winner per organization. Void where prohibited.

41. First and Last Name

42. E-mail Address

43. Phone Number

44. Do you attest that you are eligible to enter this contest based on local and federal laws in the United States of America?

- Yes
 - No
-



Thank you for taking our survey. Your response is very important to us. Winners of the drawing will be announced by November 30, 2011.

Water Heater Market Supplier Survey

Interstitial with Javascript to make partials

General Information

Thank you for taking a few minutes to fill out this survey about the water heater market. Results from this research will be provided to those involved in installing, selling, and manufacturing and will help increase sales of energy efficient water heaters in Washington, Oregon, Idaho and Montana.

Please give responses from the perspective of your entire company when possible. Feel free to use the open ended questions to provide both your and your company's perspective.

As a token of appreciation for your time, if you qualify and complete the survey, you can choose to enter our drawing. The Grand Prize is an **iPad 2**, plus there are 3 additional prizes of \$100 Amazon Gift Cards and 10 \$50 Amazon Gift Cards. The survey should take about 15 minutes to complete.

Verinnovation is an independent research company. The information you provide here will be kept secure and confidential. Your name will not be associated with your answers, and you will not be contacted by anyone for sales purposes as a result of the survey.

Thank you again for your time. **We look forward to helping you sell and install more water heaters!**

Tracy Corley

CEO, Verinnovation, Inc.

We put people at the center of innovation

1. Do you manufacture, sell, install, or repair water heaters? *

- Yes
 - No
-

2. Which of the following categories best describes you? *

- Manufacturer of residential water heaters
- Distributor of residential water heaters
- Wholesaler of residential water heaters
- Retailer of residential water heaters

- Installer/Repairer of residential water heaters
 - None of the above
-

Redirects

Thank You!

Thank you for taking our survey. Your response is very important to us.

Water Heater Manufacturer Survey

Products Manufactured

What is your job title / responsibility *

How many different models of residential water heaters do you sell across the four-state region (Washington, Oregon, Idaho, Montana)? *

What percentage of the residential water heaters you manufacture use gas, electric, or another fuel? *

Gas

Electric

Other

What other fuels do your water heaters use?

Solar

Fuel oil

Propane

Other, specify *

Products Manufactured - 2

What percentage of **tankless (on-demand)** water heaters do you manufacture by fuel (if none, enter 0)? *

Gas

Electric

Other

What percentage of **indirect** water heaters do you manufacture by fuel (if none, enter 0)? *

Gas

Electric

Other

What percentage of **heat pump (or hybrid)** water heaters do you manufacture (if none, enter 0)? *

*

Size, type of purchaser

If you entered 0 for heat pump heaters, why do you not sell these types of units? (OPTIONAL)

Please break down the percentage of your company's standard water heater sales by tank size. *

	Gas	Electric
Less than 40 gallons *	<input type="text"/>	<input type="text"/>
40 to 60 gallons *	<input type="text"/>	<input type="text"/>
Over 60 gallons *	<input type="text"/>	<input type="text"/>

What percentage of all your company's water heater sales are made to: *

	Gas	Electric	Other
Retailers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Installers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Large Home Builders *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other *	<input type="text"/>	<input type="text"/>	<input type="text"/>

Channels

What distribution channels do you use to sell water heaters in the four-state region?

- Network of installers
- Big box retailers (e.g. Home Depot, Lowe's, Sears)
- Plumbing supply houses
- Manufacturer-affiliated wholesalers
- Other (please specify)

What percentage of your company's water heater units are sold through the following channels? *

Plumbing supply house wholesalers	<input type="text"/>
Chain hardware distribution centers	<input type="text"/>
Large retailer distribution centers (e.g. Home Depot, Lowe's, Sears)	<input type="text"/>
Purchasing co-ops	<input type="text"/>
Local hardware distribution centers	<input type="text"/>
Other	<input type="text"/>

What percentage of sales originate from the following channels? *

Fax orders	<input type="text"/>
Internal sales rep	<input type="text"/>
Phone/call center	<input type="text"/>
Independent Sales Rep	<input type="text"/>
Online order system	<input type="text"/>
Other	<input type="text"/>

Sales support

Which benefits does your company offer your resellers and distributors?

- | | |
|--|--|
| <input type="checkbox"/> Field support | <input type="checkbox"/> Pre-sales support |
| <input type="checkbox"/> Online reseller portal | <input type="checkbox"/> Sales and pricing tools |
| <input type="checkbox"/> Financial incentives | <input type="checkbox"/> Leads |
| <input type="checkbox"/> Customized reseller support | <input type="checkbox"/> Co-marketing programs |
| <input type="checkbox"/> Product pre-release information | <input type="checkbox"/> Phone-based technical support |
| <input type="checkbox"/> Web-based technical support | <input type="checkbox"/> Other benefit |
| <input type="checkbox"/> Technical training | <input type="text"/> |
| <input type="checkbox"/> Reseller newsletter | <input type="checkbox"/> None of the above |
-

Does your company website provide a searchable listing of dealers? *

- No
- Yes
-

In your estimation, what percentage of orders result from visits to your website in search of information about water heaters? *

In your opinion, if a residential customer needs a new water heater, where do they typically go to get information or start the process? *

- Big box store (e.g., Home Depot, Lowe's, Sears)
- Hardware store (e.g., TruValue, Ace, Local Chain)
- Contractor or installer
- Internet/Online
- Local public utility
- Manufacturer's website
- Other, specify:
-

Do you provide customers with information about efficiency tax credits? *

Yes

No

Do you offer any incentives for the end user/consumer on particular water heater models? *

Yes

No

What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high-efficiency, higher cost water heaters by consumers?

Sales Information

How many residential water heater units did you sell last year in the U.S.? *

What is your estimated national market share for the U.S. (percentage)? *

How many residential water heater units did you sell last year in Washington, Oregon, Montana, and Idaho? *

What is your estimated market share in this four-state area (the Northwest)? *

What percentage of your total U.S. sales come from these states? *

Who in your industry do you see as the overall sales leader? *

Market Leadership

How do you differentiate your company's water heaters from the competition? *

Where do you get your information about the water heater market?

- Industry publications, magazines
- Trade associations
- Peers/Friends
- Training sessions
- Internet/Online websites and forums
- E-mail newsletters and news feeds
- Print newsletters
- Retailer information
- Conferences
- Government organizations
- Other, specify:

Who in your industry do you see as the overall innovation leader?

What current product and sales trends in the water heater industry are having the biggest impact on your company? *

What are your company's plans for manufacturing more high-efficiency water heaters? If you don't have any plans, please say so and indicate why not. *

What do you think could increase the percentage of heat pump water heaters in homes? *

What other types of high-efficiency water heaters are facing barriers? What recommendations to you have to overcome those barriers? *

What do you think are the biggest barriers to increasing the percentage of heat pump water heaters in the market? *

And finally, Do you have any suggestions for ways to improve the market for high-efficiency water heaters in the Northwest and help you sell more high-efficiency units? (OPTIONAL)

Enter the drawing

Would you like to be notified when the report is available?

- Yes
- No

Thank you for completing our survey! If you'd like to be entered in our drawing please fill out the

information below. The Grand Prize is an iPad 2, plus there are 3 additional prizes of \$100 Amazon Gift Cards and 10 \$50 Amazon Gift Cards.

Winners will be notified by November 30, 2011. Limit one winner per organization. Void where prohibited.

First and Last Name

E-mail Address

Phone Number

Do you attest that you are eligible to enter this contest based on local and federal laws in the United States of America?

Yes

No

Disclaimer:

This survey is only open to Homeowners who are residents of the states of Idaho, Montana, Oregon and Washington. If you are not a resident of these states or a Homeowner, or if you do not complete this survey, you may not qualify to participate in this Drawing. You may not enter this Drawing if your local governing laws do not permit such a Promotion. Please consult your local governing laws before participating in this Drawing. You must be at least eighteen (18) years of age to participate in the Drawing. No purchase is necessary to participate in the Drawing.

To be eligible to receive the Offer in the Drawing you must complete the survey information. If you omit any of the required items for the profile information, you will not be entered to receive the Offer. Only one entry per person, per household is valid. All respondents shall provide accurate information about their identity.

Your information will only be used for the purposes of entering you into the Drawing for the Offer. For more information about our privacy policy, please visit our web site at <http://www.verinnovation.com/aboutus.php?Privacy-Policy-8>.

No responsibility is assumed for lost, late, incomplete, stolen, or misdirected entries; or for any computer, cable, network, satellite, electronic or Internet hardware or software malfunctions, failures, connections, traffic congestion, or unauthorized human intervention.

You also hold Verinnovation Inc. and its assigns harmless of any result from your filling out this survey and entering the Drawing. All information you provide will become the property of Verinnovation Inc. and its assigns and will not be shared with others. Verinnovation Inc. reserves the right to determine eligibility for this Drawing and the Offer.

Thank You!



Thank you for taking our survey. Your response is very important to us. Winners of the drawing will be announced by November 31, 2011.

Water Heater Retailer Survey

Introduction

What is your zip code? *

What is your job title / responsibility? *

Which Northwest states does you serve? *

- Montana
- Washington
- Oregon
- Idaho

How many locations does you have in the Northwest? *

What percentage of your customers live in... *

urban areas?

rural towns or areas?

suburban areas?

Are you a major supplier of water heaters in the Northwest?

- Yes
- No
- Don't know

Brands

Which two water heater brands does your company sell most often? *

- | | |
|--|---|
| <input type="checkbox"/> Rheem or Ruud | <input type="checkbox"/> Reliant |
| <input type="checkbox"/> AO Smith | <input type="checkbox"/> Apollo |
| <input type="checkbox"/> Maytag | <input type="checkbox"/> Rinnai Tankless unit |
| <input type="checkbox"/> State Industries | <input type="checkbox"/> Bosch |
| <input type="checkbox"/> Bradford White | <input type="checkbox"/> Takagi |
| <input type="checkbox"/> American Water Heater | <input type="checkbox"/> Other, specify |
| <input type="checkbox"/> Kenmore or Sears | <input type="text"/> |
-

What other brands do you sell? *

- | | |
|--|---|
| <input type="checkbox"/> Rheem or Ruud | <input type="checkbox"/> Reliant |
| <input type="checkbox"/> AO Smith | <input type="checkbox"/> Apollo |
| <input type="checkbox"/> Maytag | <input type="checkbox"/> Rinnai Tankless unit |
| <input type="checkbox"/> State Industries | <input type="checkbox"/> Bosch |
| <input type="checkbox"/> Bradford White | <input type="checkbox"/> Takagi |
| <input type="checkbox"/> American Water Heater | <input type="checkbox"/> Other, specify |
| <input type="checkbox"/> Kenmore or Sears | <input type="text"/> |
-

types

What percentage of the residential water heater that your company sells use gas, electric, or another fuel? *

- Gas
- Electric
- Other
-

What percentage of your total water heater sales are tankless (or on demand)? If none, enter 0. *

What percentage of your total water heater sales are heat pump (or hybrid) water heaters? If none, enter 0. *

Installation factors and types

Please break down the percentage of your total standard water heater sales by tank size. If none for a particular size, enter 0. *

	Electric	Gas
Less than 40 gallons *	<input type="text"/>	<input type="text"/>
40 to 60 gallons *	<input type="text"/>	<input type="text"/>
Over 60 gallons *	<input type="text"/>	<input type="text"/>

What percentage of your water heater sales are made to... (if none, enter 0) *

	Electric	Other	Gas
Retailers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Installers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Direct to consumers *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Builders/Contractors *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other *	<input type="text"/>	<input type="text"/>	<input type="text"/>

Sales

How many residential water heater units did you sell last year in the Northwest? *

How many residential water heater units do you expect to sell this year? *

What percentage of water heater sales are for new construction? *

What percentage of your water heater sales is replacements? *

What percentage of replacements is the result of an emergency replacement? *

Contact with sales, channels sold

How regularly are you in contact with sales representatives who supply the water heaters you sell? *

- Once a week or more
- Several times a month
- Once a month
- Once or twice a quarter
- Less than once a quarter
- Rarely
- Never

On a scale of 1 to 5, with 5 being extremely high, how would you rate your knowledge of the latest trends in water heaters? *

- | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 1 | 2 | 3 | 4 | 5 |
| No | Extremely | Low | Average | High | Extremely |
| knowledge | Low | Low | Average | High | High |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Where do you get your information about the water heater market? *

Ease of maintenance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Controls and displays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temperature precision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Materials (e.g. stainless steel, copper fittings)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fuel source	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased warranty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operating costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate/Incentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Customer information sources

In your opinion, if a customer needs a new water heater, where do they typically go to get information or start the process? *

- Big box store (e.g., Home Depot, Lowe's, Sears)
- Hardware store (e.g., TruValue, Ace, Local Chain)
- Contractor, plumber or installer
- Internet/Online
- Local public utility
- Manufacturer's website
- Other, specify:

In your opinion, what percentage of orders result from visits to your company website in search of information about water heaters? *

In your opinion, do more customers typically "shop around" for water heaters and make their purchasing decisions on their own, or do they rely on a trusted source for information? *

- Shop around
 - Rely on a trusted source
-

What are the sources that customers trust for information?

- Retailer website
 - Manufacturer website
 - Industry online forums and bulletin boards
 - Retail sales representatives
 - Contractors, plumbers, and installers
 - Industry publications, magazines
 - Trade associations
 - Peers/Friends
 - Home improvement workshops
 - E-mail newsletters and news feeds
 - Print newsletters
 - Other retailer information
 - Other manufacturer information
 - Other, specify:
-

Information to customers

How often do you discuss energy savings and high-efficiency appliances with potential water heater customers? *

- All the time
- Most of the time
- Sometimes
- Rarely
- Never

Do you offer any incentives for the end user/consumer on particular water heater models? *

- Yes
- No

Do you provide customers with information about efficiency tax credits? *

- Yes
- No

Do any of the utilities in your area offer rebates on water heaters? *

- Yes
- No
- Don't know

If your utilities offer rebates, do you participate in them? *

- Yes
- No

Financing, last thoughts

What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high-efficiency, higher cost water heaters by consumers? (OPTIONAL)

Finally, we are looking for ways to help improve the market for high-efficiency water heaters in the Northwest. Do you have any suggestions for ways that we can help you install more high-efficiency units? (OPTIONAL)

Enter the drawing

Would you like to be notified when the report is available?

Yes

No

Thank you for completing our survey! If you'd like to be entered in our drawing please fill out the information below. The Grand Prize is an iPad 2, plus there are 3 additional prizes of \$100 Amazon Gift Cards and 10 \$50 Amazon Gift Cards.

Winners will be notified by November 30, 2011. Limit one winner per organization. Void where prohibited.

First and Last Name

E-mail Address

Phone Number

Do you attest that you are eligible to enter this contest based on local and federal laws in the United States of America?

Yes

No

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Your information will only be used for the purposes of entering you into the Drawing for the Offer. For more information about our privacy policy, please visit our web site at <http://www.verinnovation.com/aboutus.php?PrivacyPolicy-8>.

No responsibility is assumed for lost, late, incomplete, stolen, or misdirected entries; or for any computer, cable, network, satellite, electronic or Internet hardware or software malfunctions, failures, connections, traffic congestion, or unauthorized human intervention.

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Thank You!



Thank you for taking our survey. Your response is very important to us. Winners of the drawing will be announced by November 30, 2011.

Water Heater Installer Survey

Introduction

What is your zip code? *

What is your job title / responsibility? *

Which Northwest states do you serve? *

- Montana
- Idaho
- Oregon
- Washington

How many locations do you have in the Northwest? *

What percentage of your customers live in... *

rural towns or areas?

urban areas?

suburban areas?

How many installers are on your team? *

- 1
- 2-5
- 6-15
- 16 or more

Not sure

What percentage of your installers are employees?

Installations

How many residential water heater units did you install last year in your area? *

How many residential water heater units do you expect to install this year? *

What percentage do water heater installations make up of your total business? *

Which two water heater brands do you install most often? *

- | | |
|--|---|
| <input type="checkbox"/> Rheem or Ruud | <input type="checkbox"/> Reliant |
| <input type="checkbox"/> AO Smith | <input type="checkbox"/> Apollo |
| <input type="checkbox"/> Maytag | <input type="checkbox"/> Rinnai Tankless unit |
| <input type="checkbox"/> State Industries | <input type="checkbox"/> Bosch |
| <input type="checkbox"/> Bradford White | <input type="checkbox"/> Takagi |
| <input type="checkbox"/> American Water Heater | <input type="checkbox"/> Other, specify |
| <input type="checkbox"/> Kenmore or Sears | <input type="text"/> |
-

Installation types

What percentage of the residential water heater units that your company install use gas, electric, or other fuel? If none enter 0. *

Gas

Electric

Other

What percentage of your total water heater installations includes replacing an electric water heater with a gas unit? *

What percentage of the tankless (or on demand) water heaters that you install use gas, electric, or another fuel? If none, enter 0? *

Gas

Electric

Other

What percentage of your total installs are heat pump (or hybrid) water heaters? If none, enter 0. *

Installation factors and types

What factors determine what types of water heaters you most often install for your customers? *

- Availability of training
 - Complexity of the installation
 - Time to install
 - Orders from retail partner
 - Customer request for the unit
 - Availability of the unit
 - Other, specify:
-

What percentage of water heater installations are for new construction? *

What percentage of water heater installations are replacements? *

What percentage of replacements are the result of an emergency replacement? *

Customer selection factors

On a scale of 1 to 5, with 1 being not at all important and 5 being most important, which factors do your customers consider when selecting a water heater?

	1	2	3	4	5	Don't Know
Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate or other incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/Noise level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/In stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size of the unit *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY STAR Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Color or design *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Contact with sales, channels sold

How regularly are you in contact with the sales representatives who supply the water heaters

you install? *

- Once a week or more
 - Several times a month
 - Once a month
 - Once or twice a quarter
 - Less than once a quarter
 - Rarely
 - Never
-

What percentage of your installations are water heaters you resell to customers? *

What percentage of your installations are water heaters your customers purchase directly from retailers or distributors? *

Does your company actively market water heater installation services? *

- Yes
 - No
-

Customer information sources

In your opinion, if a customer needs a new water heater, where do they typically go first to get information? *

- Big box store (e.g., Home Depot, Lowe's, Sears)
- Hardware store (e.g., TruValue, Ace, Local Chain)
- Contractor, plumber or installer
- Internet/Online
- Local public utility

Manufacturer's website

Other, specify:

On a scale of 1 to 5, with 5 being extremely high, how would you rate your knowledge of the latest trends in water heaters? *

	1				5
No	Extremely	2	3	4	Extremely
knowledge	Low	Low	Average	High	High
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Information sources

Where do you get your information about the water heater market? *

Industry publications, magazines

Trade associations

Peers/Friends

Training sessions

Internet/Online websites and forums

E-mail newsletters and news feeds

Print newsletters

Retailer information

Manufacturer information

Conferences

Government organizations

Other, specify:

In your opinion, do more customers typically "shop around" for water heaters and make their purchasing decisions on their own, or do they rely on a trusted source for information? *

Shop around

Rely on a trusted source

What are the sources that customers trust for information?

- Retailer website
- Manufacturer website
- Industry online forums and bulletin boards
- Retail sales representatives
- Contractors, plumbers, and installers
- Industry publications, magazines
- Trade associations
- Peers/Friends
- Home improvement workshops
- E-mail newsletters and news feeds
- Print newsletters
- Other retailer information
- Other manufacturer information
- Other, specify:

How often do you discuss energy savings and high-efficiency appliances with potential water heater customers? *

- All the time
- Most of the time
- Sometimes
- Rarely
- Never

Cost, warranty

Is there a difference in cost between installing a gas and an electric water heater? *

- No

Don't know

Yes, specify:

What is the average amount that you charge for the following water heating units? Enter 0 if you do not resell that fuel type. *

Gas

Electric

Other

Do you offer warranties on installations? *

Yes

No

Do you offer warranties on the equipment? *

Yes

No

Do you provide customers with information about efficiency tax credits? *

Yes

No

Do any of the utilities in your area offer rebates on water heaters? *

Yes

No

Don't know

If your utilities offer rebates, do you participate in them? *

Yes

No

Financing, last thoughts

What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high-efficiency, higher cost water heaters by consumers?

(OPTIONAL)

Finally, we are looking for ways to help improve the market for high-efficiency water heaters in the Northwest. Do you have any suggestions for ways that we can help you install more high-efficiency units? (OPTIONAL)

Enter the drawing

Would you like to be notified when the report is available?

Yes

No

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First and Last Name

E-mail Address

Phone Number

Do you attest that you are eligible to enter this contest based on local and federal laws in the United States of America?

Yes

No

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Water Heater Homeowner Surveys

This survey seeks input from homeowners to learn more about some of the major appliances in their homes. This information will be used for research purposes only. **No identifying information will be shared** with any third party organization or the client for this study. Your personal information will not be used for any purpose outside of conducting this survey. For more information about our Privacy Policy, please visit [our survey privacy policy page](#). This survey takes 8-9 minutes to complete.

1. Are you the person in the home who makes purchasing decisions about home appliances? *

- Yes
 - No
-

2. Have you or someone in your household purchased a new water heater in the last year? *

- Yes
 - No
-

3. Is your home more than ten years old? *

- Yes
 - No
-

~~Thank you for taking our survey. Your response is very important to us.~~

NOTE: This document does not include any formatting, logic, validation, or skip patterns as evidenced in the live online surveys.

Homeowner Survey

1. What is your zip code? *

NOTE: This document does not include any formatting, logic, validation, or skip patterns as evidenced in the live online surveys.

2. How old is your existing water heater? (An estimate is fine) *

- Under 5 years old
- 5-10 years old
- 11-15 years old
- 16-20 years old
- 21+ years old
- Don't know

3. Where is your current water heater located? *

- Basement
- Garage
- Kitchen
- Utility area
- Multiple locations
- Don't Know
- Other, specify

4. Which type of water heater do you have now? *

- Standard water heater
- Tankless / On demand
- Heat Pump / Hybrid
- Indirect

Don't know

Other, specify

5. What type of fuel does your water heater use? *

Electric

Solar

Natural Gas

Fuel Oil

Electric with solar backup

Wood

Natural gas with solar backup

Don't know

Propane

Other, specify

6. What is the tank size of the water heater you have now? *

No tank/tankless

75 gallons

Less than 40 gallons

80 gallons

40 gallons

120 gallons

50 gallons

Don't know

65 gallons

Other, specify

7. What brand of water heater do you have? *

Rheem or Ruud

Reliant

AO Smith

Apollo

Maytag

Rinnai Tankless unit

State Industries

Bosch

Bradford White

Takagi

American Water Heater

Don't know

Kenmore or Sears

Other, specify

Many homeowners will replace their water heater at some point—either when it fails suddenly or for a number of other reasons.

8. Have you considered replacing the unit before it fails? *

- Yes
- No
- Don't know

9. Even if you haven't thought about this yet, how likely are you to buy the same type of water heater? *

- Very likely
- Somewhat likely
- Not sure
- Not very likely
- Not at all likely

10. What would be the first step you would take to replace your water heater? *

- Call a plumber
- Call a contractor
- Research online
- Go to a store
- Call a friend or family member
- Don't know
- Other, specify

11. If you visit a store, what kind of store would you visit? *

- Plumbing supply store (e.g. George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)

- Local (non-chain) hardware store
- Chain hardware store (e.g. Ace Hardware, True Value Hardware)
- Chain store (e.g. Sears)
- National home improvement store (e.g. Home Depot, Lowe's)
- Buying Club (e.g. Costco, Sam's)
- Plumber
- Online store
- Don't know
- Other, specify
-

12. Which of the following resources would you use? *

- Plumber
- Contractor
- On the Internet to do research
- To a store
- A friend or family member
- Don't know
-

13. Which statement best describes how you typically act when you have a straight-forward home improvement project that takes several hours but no more than a day to do? *

- I hire a contractor to take care of everything
- I purchase the supplies and then hire a contractor or plumber to install
- I purchase the supplies and do the installation myself
- It depends on the project
- Don't know
-

14. Who would make the decision on which new water heater to purchase? *

- Me or my spouse/partner

A trusted friend

A plumber or contractor

Not sure

15. How would you use the Internet? *

To do initial research on water heaters

To learn more about water heaters after talking with someone or going to a store

To purchase a water heater

Don't use the Internet when making an appliance decision

Don't know

16. How often do you research home appliance purchases on the Internet? *

Always

Often

Sometimes

Rarely

Never

Don't know

Selecting a New Water Heater

17. Please list the importance of each of the following factors in your decision-making process on a scale of 1 to 5 with **1 = "not at all important"** and **5 = "very important"**. *

	1	2	3	4	5	Don't know
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency or operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size of the unit *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate or other incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Color or design *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY STAR Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/in stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/Noise Level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Are there any other factors that affect your decision?

19. Are you aware of high-efficiency water heaters such as: *

	Yes	No
Tankless / On Demand *	<input type="radio"/>	<input type="radio"/>
Heat Pump / Hybrid *	<input type="radio"/>	<input type="radio"/>
Indirect *	<input type="radio"/>	<input type="radio"/>

20. How important is price to you in purchasing a new water heater? *

- Most important
- Very important
- Important
- Not very important
- Not important at all

21. Energy efficient water heaters save customers money every year on their annual electric bills by heating water more efficiently. They are manufactured by leading water heater manufacturers, and have the same tank life and warranties as a standard water heater. Now that you know more, how likely would you be to purchase an energy efficient water heater? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

22. What do you expect to pay for a new water heater unit, including any installation costs? *

- Less than \$400
 - \$401-\$500
 - \$501-\$750
 - \$751-\$1,000
 - \$1,001-\$1,500
 - More than \$1,500
 - Don't know
-

23. A new ENERGY STAR water heater saves you \$200 every year on your fuel bill by heating your water more efficiently. They are manufactured by leading water heater manufacturers and have the same tank life and warranties as your current water heater. How much more, if anything, would you be willing to pay for the ENERGY STAR water heater described? *

- \$50 to \$100 more
 - \$101 to \$200 more
 - \$201 to \$300 more
 - \$301 to \$400 more
 - More than \$500
 - Don't know
-

24. After tax credits and rebates, the ENERGY STAR water heater costs \$500 more than a standard water heater. If this water heater is available when you are shopping for your new water heater, how likely will you be to purchase it? *

- Very likely

- Somewhat likely
- Not sure
- Not very likely
- Not at all likely
-

25. Which of the following are you aware of when purchasing an ENERGY STAR water heater?
Select all that apply. *

- State income tax credit
- Utility rebates
- Manufacturer rebates
- Retailer rebates
- None of the above
-

26. Would you apply for a rebate for the new water heater? *

- Yes
- No
- Not sure
-

New high-efficiency water heaters allow you to save \$75 each year on your energy bill. They also include features that improve performance and reliability of hot water for different applications in your home. They are manufactured by leading water heater manufacturers and have the same warranties as a standard water heater.

27. Would you apply for a tax credit for the new high-efficiency water heater? *

- Yes
- No
- Not sure
-

28. If you could finance your water heater through your utility and pay a monthly charge for an energy efficient model, how likely would you be to participate in this program? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

29. If you could get interest-free financing for 6 to 12 months on an energy efficient water heater, how likely would you be to finance an new energy efficient water heater purchase? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

30. Of all the options available to motivate or encourage customers to purchase an energy efficient water heater, which ONE of these is the most appealing to you? *

- A rebate after purchasing
 - A tax credit
 - Interest-free financing
 - Monthly payments through my utility
 - None of the above
 - Don't know
-

Final Demographic Questions

31. Do you own your home or do you rent? *

- Own
- Rent

Decline to answer

32. What is your gender? *

- Male
 - Female
 - Decline to answer
-

33. Which of the following categories includes your age? *

- 18 to 24
 - 25 to 34
 - 35 to 44
 - 45 to 54
 - 55 to 64
 - Over 65
 - Decline to answer
-

34. Which of the following best describes your educational background? *

- Some high school
 - High school graduate
 - Trade or technical school
 - Some college
 - College graduate
 - Some graduate school
 - Graduate degree
 - Decline to answer
-

35. Lastly, which of the following categories contains your annual household income from all sources in 2010 before taxes? *

Less than \$20,000 per year

\$20,000 to \$49,000

\$50,000 to \$74,000

\$75,000 to \$99,000

\$100,000 or more

Decline to answer

Thank you for completing our survey! If you'd like to be entered in our drawing for a free Chinook book or \$25 gift card, please fill out the information below.

Winners will be notified by November 31, 2011. Limit one winner per household. Void where prohibited.

First and Last Name

E-mail Address

Phone Number

Do you attest that you are eligible to enter this drawing and are a citizen or legal resident of the United States? This drawing is void where prohibited by law.

Yes

No

Thank you for taking our survey. Your response is very important to us.

Recent Water Heater Buyer Survey

1. What is your zip code? *

2. Are you the person who decided which water heater to purchase? *

Yes

No

NOTE: This document does not include any formatting, logic, validation, or skip patterns as evidenced in the live online surveys.

3. How long ago did you purchase your water heater? *

Less than six months ago

Six to 12 months ago

More than 12 months ago

4. How old was the water heater you replaced? (An estimate is fine) *

Under 5 years old

5-10 years old

11-15 years old

16-20 years old

21+ years old

New construction, first time purchase

Don't know

5. Why did you replace the unit? Select all that apply. *

It was getting old and it was time to replace it before it broke

It failed suddenly

We wanted more efficiency

We wanted a different type of water heater

- We were doing a remodel
- Don't know
- Other, specify
-

6. Where is your current water heater located? *

- Basement
- Garage
- Kitchen
- Utility area
- Multiple locations
- Don't Know
- Other, specify
-

7. Which type of water heater did you purchase? *

- Standard water heater
- Tankless / On demand
- Heat Pump / Hybrid
- Indirect
- Don't know
- Other, specify
-

8. What type of fuel does your new water heater use? *

- | | |
|---|--------------------------------------|
| <input type="radio"/> Electric | <input type="radio"/> Solar |
| <input type="radio"/> Natural Gas | <input type="radio"/> Fuel Oil |
| <input type="radio"/> Electric with solar backup | <input type="radio"/> Wood |
| <input type="radio"/> Natural gas with solar backup | <input type="radio"/> Don't Know |
| <input type="radio"/> Propane | <input type="radio"/> Other, specify |

9. What fuel did you use for your OLD water heater? *

- | | |
|---|--------------------------------------|
| <input type="radio"/> Electric | <input type="radio"/> Solar |
| <input type="radio"/> Natural gas | <input type="radio"/> Fuel oil |
| <input type="radio"/> Electric with solar backup | <input type="radio"/> Wood |
| <input type="radio"/> Natural gas with solar backup | <input type="radio"/> Don't know |
| <input type="radio"/> Propane | <input type="radio"/> Other, specify |

10. If you are now using a different fuel, why did you choose to switch?

- To save money
- We wanted our water heating and home heating fuel to be the same
- We preferred the new fuel choice
- Don't know
- Other, specify

11. What is the tank size of the water heater you have now? *

- | | |
|--|--------------------------------------|
| <input type="radio"/> No tank/tankless | <input type="radio"/> 75 gallons |
| <input type="radio"/> Less than 40 gallons | <input type="radio"/> 80 gallons |
| <input type="radio"/> 40 gallons | <input type="radio"/> 120 gallons |
| <input type="radio"/> 50 gallons | <input type="radio"/> Don't Know |
| <input type="radio"/> 65 gallons | <input type="radio"/> Other, specify |

12. What brands did you consider? *

- | | |
|--|----------------------------------|
| <input type="checkbox"/> Rheem or Ruud | <input type="checkbox"/> Reliant |
| <input type="checkbox"/> AO Smith | <input type="checkbox"/> Apollo |

- | | |
|--|---|
| <input type="checkbox"/> Maytag | <input type="checkbox"/> Rinnai Tankless unit |
| <input type="checkbox"/> State Industries | <input type="checkbox"/> Bosch |
| <input type="checkbox"/> Bradford White | <input type="checkbox"/> Takagi |
| <input type="checkbox"/> American Water Heater | <input type="checkbox"/> Don't Know |
| <input type="checkbox"/> Kenmore or Sears | <input type="checkbox"/> Other, specify |
-
-

13. What brand did you finally purchase? *

- | | |
|---|--|
| <input type="radio"/> Rheem or Ruud | <input type="radio"/> Reliant |
| <input type="radio"/> AO Smith | <input type="radio"/> Apollo |
| <input type="radio"/> Maytag | <input type="radio"/> Rinnai Tankless unit |
| <input type="radio"/> State Industries | <input type="radio"/> Bosch |
| <input type="radio"/> Bradford White | <input type="radio"/> Takagi |
| <input type="radio"/> American Water Heater | <input type="radio"/> Don't Know |
| <input type="radio"/> Kenmore or Sears | <input type="radio"/> Other, specify |
-
-

14. Was the replacement an emergency requiring replacement within one or two days of failure? *

- Yes
 - No
 - N/A
 - Don't know
-

15. What was the first step you took to replace your water heater? *

- Called a plumber
- Called a contractor
- Researched online

- Went to a store
 - Called a friend or family member
 - Don't know
 - Other, specify
-

16. Which of the following resources did you use? *

- Plumber
 - Contractor
 - Online forum or website
 - Salesperson at a retail store
 - Friend or family member
 - Don't know
-

17. Where did you finally purchase your water heater?

- Plumbing supply store (George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)
 - Local (non-chain) hardware store
 - Chain hardware store (Ace Hardware, True Value Hardware)
 - Chain store (Sears)
 - National home improvement store (Home Depot, Lowe's)
 - Buying Club (Costco, Sam's)
 - Plumber
 - Online store
 - Ordered by phone
 - Don't Know
 - Other, specify
-

18. Did you see any retail store display information that was helpful to you in your

- Yes
 - No
-

19. How many water heaters did you consider? *

- One
 - Two to three
 - Four or more
 - Not sure
-

20. Which statement best describes how you typically act when you have a straightforward home improvement project that takes several hours but no more than a day to do? *

- I hire a contractor to take care of everything
 - I purchase the supplies and then hire a contractor or plumber to install
 - I purchase the supplies and do the installation myself
 - It depends on the project
 - Don't Know
-

21. Who made the decision on which new water heater to purchase? *

- Me or my spouse/partner
 - A trusted friend
 - A plumber or contractor
 - Not sure
-

22. Which of the following additional sources of information, if any, did you use to decide which water heater to purchase? *

- Internet
- Utility help desk or utility website

- Salesperson
- Yellow Energy Guide label
- Word of mouth
- Don't know
- Other, specify

23. Please list the importance of each of the following factors in your decision-making process on a scale of 1 to 5 with 1 being "not at all important" and 5 being "very important". *

	1	2	3	4	5	Don't know
Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/noise level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Color or design *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY STAR Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate or other incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size of the unit *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency or operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/in stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Are there any other factors that affect your decision?

25. Did you get prices from more than one source? *

Yes

- No
- Don't know
-

Why didn't you shop around?

- I trusted my contractor/plumber to make the right decision
- My contractor got the best price for me
- I didn't have time to research
- I didn't care
- I used the same brand or supplier I have used in the past
- Don't know
- Other, specify
-

26. How important is price to you in purchasing a new water heater? *

- Most important
- Very important
- Important
- Not very important
- Not important at all
-

27. Energy efficient water heaters save customers money every year on their annual electric bills by heating water more efficiently. They are manufactured by leading water heater manufacturers, and have the same tank life and warranties as a standard water heater. Now that you know more, how likely would you be to purchase an energy efficient water heater? *

- Very likely
- Somewhat likely
- Not sure
- Not very likely
- Not at all likely

28. What was the approximate cost of your new water heater unit, including any installation costs? *

- Less than \$400
 - \$401-\$500
 - \$501-\$750
 - \$751-\$1,000
 - \$1,001-\$1,500
 - More than \$1,500
 - Don't know
-

29. A new ENERGY STAR water heater saves you \$200 every year on your fuel bill by heating your water more efficiently. They are manufactured by leading water heater manufacturers and have the same tank life and warranties as your current water heater. How much more, if anything, would you be willing to pay for the ENERGY STAR water heater described? *

- \$50 to \$100 more
 - \$101 to \$200 more
 - \$201 to \$300 more
 - \$301 to \$400 more
 - More than \$500
 - Don't know
-

30. After taxes credits and rebates, the ENERGY STAR water heater costs \$500 more than a standard water heater. If this water heater is available when you are shopping for your new water heater, how likely will you be to purchase it? *

- Very likely
- Somewhat likely
- Not sure
- Not very likely

Not at all likely

31. Were you aware of any of the following when purchasing your water heater?
Choose all that apply. *

- State income tax credit
 - Utility rebates
 - Manufacturer rebates
 - Retailer rebates
-

32. Did you or do you intend to apply for a rebate for the new water heater? *

- Yes
 - No
 - Not sure
-

33. Did you or do you intend to apply for a tax credit for the new water heater? *

- Yes
 - No
 - Don't know
-

34. If you could finance your water heater through your utility and pay a monthly charge for an energy efficient model, how likely would you be to participate in this program? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

35. If you could get interest-free financing for 6 to 12 months on an energy efficient water heater, how likely would you be to finance a new energy efficiency water

heater purchase? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

36. Of all the options available to motivate or encourage customers to purchase an energy efficient water heater, which of these is the most appealing to you? *

- A rebate after purchasing
 - A tax credit
 - Interest-free financing
 - Monthly payments through my utility
 - None of the above
 - Don't know
-

Final Demographic Questions

37. Do you own your home or do you rent? *

- Own
 - Rent
 - Decline to answer
-

38. What is your gender? *

- Male
- Female
- Decline to respond

39. Which of the following categories includes your age? *

- 18 to 24
 - 25 to 34
 - 35 to 44
 - 45 to 54
 - 55 to 64
 - Over 65
 - Decline to answer
-

40. Which of the following best describes your educational background? *

- Some high school
 - High school graduate
 - Trade or technical school
 - Some college
 - College graduate
 - Some graduate school
 - Graduate degree
 - Decline to answer
-

41. Lastly, which of the following categories contains your annual household income from all sources in 2010 before taxes? *

- Less than \$20,000 per year
- \$20,000 to \$49,000
- \$50,000 to \$74,000
- \$75,000 to \$99,000
- \$100,000 or more
- Decline to answer

Thank you for completing our survey! If you'd like to be entered in our drawing for a free Chinook book or \$25 gift card, please fill out the information below.

Winners will be notified by November 31, 2011. Limit one winner per household. Void where prohibited.

First and Last Name

E-mail Address

Phone Number

Do you attest that you are eligible to enter this drawing and are a citizen or legal resident of the United States? This drawing is void where prohibited by law.

- Yes
- No

Thank you for taking our survey. Your response is very important to us.

Home Appliance Survey

Interstitial with Javascript to capture something about abandons

Basic Information

Thank you for taking a few minutes to fill out this survey on household appliances. If you qualify and complete the survey, you can choose to enter our drawing (Grand Prize an iPad 2, 3 \$100 Amazon Gift Cards, 100 \$25 Amazon Gift Cards or Chinook Books).

The survey should take less than 10 minutes to complete. This study is being conducted by an independent research company. The information you provide here will be kept secure and confidential. Your name will not be associated with your answers, and you will not be contacted by anyone for sales purposes as a result of the survey.

Tracy

CEO, Verinnovation, Inc

For more information about our Privacy Policy, please visit [our survey privacy policy page](#).

Which of the following best describes your situation at home? *

- I own my own home
 - I rent my home
 - I live with someone else who owns the home (parents, partner, etc.)
 - Other (please specify)
-

In which U.S. state do you live?

- Alabama
- Alaska
- American Samoa
- Arizona
- Kentucky
- Louisiana
- Maine
- Marshall Islands
- Ohio
- Oklahoma
- Oregon
- Palau

- Arkansas
 - California
 - Colorado
 - Connecticut
 - Delaware
 - District of Columbia
 - Federated States of Micronesia
 - Florida
 - Georgia
 - Guam
 - Hawaii
 - Idaho
 - Illinois
 - Indiana
 - Iowa
 - Kansas
 - Maryland
 - Massachusetts
 - Michigan
 - Minnesota
 - Mississippi
 - Missouri
 - Montana
 - Nebraska
 - Nevada
 - New Hampshire
 - New Jersey
 - New Mexico
 - New York
 - North Carolina
 - North Dakota
 - Northern Mariana Islands
 - Pennsylvania
 - Puerto Rico
 - Rhode Island
 - South Carolina
 - South Dakota
 - Tennessee
 - Texas
 - Utah
 - Vermont
 - Virgin Islands
 - Virginia
 - Washington
 - West Virginia
 - Wisconsin
 - Wyoming
 - I don't live in the United States
-

How old is your home? Please select the closest match or your best guess. *

- Under 1 year old
 - Between 1 and 5 years old
 - Between 5 years and 10 years old
 - Between 10 years and 20 years old
 - Over 20 years old
-

In your household, who makes decisions about purchasing home appliances such as washing machines and water heaters? *

- I make the decisions with someone else
- I make the decisions alone

- Someone else makes the decisions
-

We'd like to know about the age of the water heaters in your house. Which of the following best fits your situation? *

- The water heater in my house is newer than one year, but I wasn't involved in purchasing it.
(Perhaps you moved into a new house)
 - My household purchased a new water heater in the past year.
 - The water heater in my house (or all water heaters if you have more than one) is older than 1 year.
 - I don't know how old the water heater(s) in my house are.
-

Panel Terminate

Jump to linked survey

Thank You!

Thank you for taking our survey. Your response is very important to us.

Water Heater Survey

About Your Water Heater

How old is your existing water heater?

*(An estimate is fine. If you have more than one, how old is the newest?) **

- Under 5 years old
 - 5-10 years old
 - 11-15 years old
 - 16-20 years old
 - 21+ years old
 - Don't know
-

Where is your current water heater located? *

- Basement
 - Utility area
 - Kitchen
 - Multiple locations (more than one heater)
 - Garage
 - Other, please specify *
 - Don't Know
-

Which type of water heater do you have now?

*(If you have more than one, select the type of the primary water.) **

- Tankless / On demand
- Indirect
- Standard water heater
- Heat Pump / Hybrid

Other, please specify

Don't know

About Your Water Heater

What type of fuel does your water heater use?

*(If you have more than one, select the fuel of the primary water heater.) **

Fuel Oil

Electric

Wood

Electric with solar backup

Natural gas with solar backup

Natural Gas

Solar

Other, please specify

Propane

Don't know

What is the tank size of the water heater you have now?

(If you have more than one, select the size of the primary water heater.)

*

No tank/tankless

75 gallons

Less than 40 gallons

80 gallons

40 gallons

120 gallons

50 gallons

Other, please specify

65 gallons

Don't know

What brand of water heater do you have? *

Takagi

Rinnai Tankless unit

Maytag

Bosch

State Industries

American Water Heater

AO Smith

Kenmore or Sears

Rheem or Ruud

Apollo

Reliant

Bradford White

Other, please specify

Don't know

Water Heater Replacement

Many homeowners will replace their water heater at some point—either when it fails suddenly or for a number of other reasons.

Have you considered replacing the unit before it fails? *

Yes

No

Don't know

Even if you haven't thought about it before, how likely are you to make the same choices when are replacing a water heater? *(Please select the best match for each row)*

	Very likely to buy the same	Somewhat likely to buy the same	Neutral	Somewhat likely to buy different	Very likely to buy different
Type (currently [question("value"), id="8"])	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fuel (currently [question("value"), id="74"])	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size (currently [question("value"), id="75"])	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand (currently [question("value"), id="76"])	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What would be the first step you would take to replace your water heater? *

- Call a friend or family member
- Call a contractor
- Call a plumber
- Go to a store
- Research online
- Other, please specify
- Don't know

Water Heater Replacement: Research

If you visit a store for a water heater purchase, what kind of stores would you visit?
(Please check all that apply) *

- Chain store (e.g. Sears)
- National home improvement store (e.g. Home Depot, Lowe's)
- Local (non-chain) hardware store
- Buying Club (e.g. Costco, Sam's)
- Plumber
- Plumbing supply store (e.g. George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)
- Online store
- Chain hardware store (e.g. Ace Hardware, True Value Hardware)
- Other, please specify
- Don't know

Which of the following resources would you use to help make a decision about a water heater?
(Please check all that apply) *

- Plumber
- Internet research

- Contractor
 - A friend or family member
 - To a store
 - Don't know
-

How would you use the Internet to help with the purchase of a new water heater?
(Please check all that apply) *

- To learn more about water heaters after talking with someone or going to a store
 - To do initial research on water heaters
 - Don't use the Internet when making an appliance decision
 - To purchase a water heater
 - Don't know
-

How often do you research home appliance purchases on the Internet? *

- Always
 - Often
 - Sometimes
 - Rarely
 - Never
 - Don't know
-

Water Heater Replacement: Decision Making

Which statement best describes how you typically act when you have a straight-forward home improvement project that takes several hours but no more than a day to do? *

- I purchase the supplies and then hire a contractor or plumber to install
- It depends on the project
- I purchase the supplies and do the installation myself
- I hire a contractor to take care of everything

Don't know

Who would make the decision on which new water heater to purchase? *

- Me or my spouse/partner
 - A trusted friend
 - A plumber or contractor
 - Not sure
-

Water Heater Replacement: Features

Please rate the importance of each of the following factors in your decision-making process for a new water heater on a scale of 1 to 5 with **1 = "not at all important"** and **5 = "very important"**. *

	Not at all important 1	2	3	4	Very important 5	Don't know
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size of the unit *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency or operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/Noise Level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/in stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate or other incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY STAR Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Color or design *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there any other factors that affect your decision? Please explain. (OPTIONAL)

Which of the following types of high-efficiency water heaters are you aware of? *

	Yes	No
Tankless / On Demand *	<input type="radio"/>	<input type="radio"/>
Heat Pump / Hybrid *	<input type="radio"/>	<input type="radio"/>
Indirect *	<input type="radio"/>	<input type="radio"/>

Pricing

How important is price to you in purchasing a new water heater? *

- Most important
- Very important
- Important
- Not very important
- Not important at all

Energy efficient water heaters save customers money every year on their annual electric bills by heating water more efficiently. They are manufactured by leading water heater manufacturers, and have the same tank life and warranties as a standard water heater. Knowing this, how likely would you be to purchase an energy efficient water heater? *

- Very likely
- Somewhat likely
- Not sure
- Not very likely
- Not at all likely

What do you expect to pay for a new water heater unit, including any installation costs? *

- Less than \$400
 - \$401-\$500
 - \$501-\$750
 - \$751-\$1,000
 - \$1,001-\$1,500
 - More than \$1,500
 - Don't know
-

ENERGY STAR

A new ENERGY STAR water heater saves you \$200 every year on your fuel bill by heating your water more efficiently. They are manufactured by leading water heater manufacturers and have the same tank life and warranties as your current water heater. How much more, if anything, would you be willing to pay for the ENERGY STAR water heater described? *

- \$50 to \$100 more
 - \$101 to \$200 more
 - \$201 to \$300 more
 - \$301 to \$400 more
 - More than \$500
 - Don't know
-

After tax credits and rebates, the ENERGY STAR water heater costs \$500 more than a standard water heater. If this water heater is available when you are shopping for your new water heater, how likely will you be to purchase it? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

Which of the following are you aware of when purchasing an ENERGY STAR water heater? Select

all that apply. *

- Manufacturer rebates
 - Utility rebates
 - Retailer rebates
 - State income tax credit
 - None of the above
-

Would you apply for a rebate for a new ENERGY STAR new water heater? *

- Yes
 - Not sure
 - No
-

Rebates

New high-efficiency water heaters allow you to save \$75 each year on your energy bill. They also include features that improve performance and reliability of hot water for different applications in your home. They are manufactured by leading water heater manufacturers and have the same warranties as a standard water heater.

Would you apply for a tax credit for a new high-efficiency water heater? *

- Yes
 - Not sure
 - No
-

If you could finance your water heater through your utility and pay a monthly charge for an energy efficient model, how likely would you be to participate in this program? *

- Very likely
- Somewhat likely
- Not sure
- Not very likely

Not at all likely

If you could get interest-free financing for 6 to 12 months on an energy efficient water heater, how likely would you be to finance an new energy efficient water heater purchase? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

Of all the options available to motivate or encourage customers to purchase an energy efficient water heater, which ONE of these is the most appealing to you? *

- A rebate after purchasing
 - Monthly payments through my utility
 - A tax credit
 - Interest-free financing
 - None of these options is appealing
 - Don't know
-

Do you have any other comments about water heaters? (OPTIONAL)

Demographics

The last few questions are for classification purposes only. Your survey responses will not be associated with any personally identifiable information.

What is your zip code? *

What is your gender? *

- Male
- Female
- Decline to answer

Which of the following categories includes your age? *

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- Over 65
- Decline to answer

Which of the following best describes your educational background? *

- Some high school
- High school graduate
- Trade or technical school
- Some college
- College graduate
- Some graduate school
- Graduate degree
- Decline to answer

Lastly, which of the following categories contains your annual household income from all sources

in 2010 before taxes? *

- Less than \$20,000 per year
 - \$20,000 to \$49,000
 - \$50,000 to \$74,000
 - \$75,000 to \$99,000
 - \$100,000 or more
 - Decline to answer
-

Panel Complete

Enter to Win

Thank you for completing our survey! If you'd like to be entered in our drawing please fill out the information below. The Grand Prize is an iPad 2, plus there are 3 additional prizes of \$100 Amazon Gift Cards and 100 \$25 Amazon Gift Cards or Chinook Books.

Winners will be notified by November 30, 2011. Limit one winner per household. Void where prohibited.

First and Last Name

E-mail Address

Phone Number

Do you attest that you are eligible to enter this drawing and are a citizen or legal resident of the United States? This drawing is void where prohibited by law.

- Yes
 - No
-

Disclaimer:

This survey is only open to Homeowners who are residents of the states of Idaho, Montana, Oregon and Washington. If you are not a resident of these states or a Homeowner, or if you do not complete this survey, you may not qualify to participate in this Drawing. You may not enter this Drawing if your local governing laws do not permit such a Promotion. Please consult your local governing laws before participating in this Drawing. You must be at least eighteen (18) years of age to participate in the Drawing. No purchase is necessary to participate in the Drawing.

To be eligible to receive the Offer in the Drawing you must complete the survey information. If you omit any of the required items for the profile information, you will not be entered to receive the Offer. Only one entry per person, per household is valid. All respondents shall provide accurate information about their identity.

Your information will only be used for the purposes of entering you into the Drawing for the Offer. For more information about our privacy policy, please visit our web site at <http://www.verinnovation.com/aboutus.php?PrivacyPolicy:8>.

No responsibility is assumed for lost, late, incomplete, stolen, or misdirected entries; or for any computer, cable, network, satellite, electronic or Internet hardware or software malfunctions, failures, connections, traffic congestion, or unauthorized human intervention.

You also hold Verinnovation Inc. and its assigns harmless of any result from your filling out this survey and entering the Drawing. All information you provide will become the property of Verinnovation Inc. and its assigns and will not be shared with others. Verinnovation Inc. reserves the right to determine eligibility for this Drawing and the Offer.

Thank You!

Thank you for taking our survey. Your response is very important to us.

Recent Water Heater Buyer Survey

About Your Water Heater

Are you the person who decided which water heater to purchase? *

- No
 - Yes
-

How long ago did you purchase your water heater? *

- Less than six months ago
 - Six to 12 months ago
 - More than 12 months ago
-

How old was the water heater you replaced? (An estimate is fine) *

- Under 5 years old
 - 5–10 years old
 - 11–15 years old
 - 16–20 years old
 - 21+ years old
 - New construction, first time purchase
 - Don't know
-

Why did you replace the unit? (*Please select all that apply.*) *

- It failed suddenly
- We were doing a remodel
- It was getting old and it was time to replace it before it broke
- We wanted a different type of water heater
- We wanted more efficiency

Other (please specify)

Don't know

Where is your water heater located?

Multiple locations (more than one heater)

Basement

Utility area

Garage

Kitchen

Other (please specify)

Don't know

Water Heater details

Which type of water heater did you purchase? *

Tankless / On demand

Standard water heater

Indirect

Heat Pump / Hybrid

Other (please specify)

Don't know

What type of fuel does your new water heater use? *

Natural gas with solar backup

Natural Gas

Electric with solar backup

Fuel Oil

Solar

Electric

Propane

Other (please specify)

Wood

Don't Know

What fuel did you use for your OLD water heater? *

- | | |
|--|---|
| <input type="radio"/> Fuel oil | <input type="radio"/> Natural gas |
| <input type="radio"/> Solar | <input type="radio"/> Natural gas with solar backup |
| <input type="radio"/> Propane | <input type="radio"/> Electric |
| <input type="radio"/> Wood | <input type="radio"/> Other (please specify) |
| <input type="radio"/> Electric with solar backup | <input type="text"/> |
| | <input type="radio"/> Don't know |
-

If you are now using a different fuel, why did you choose to switch?

- To save money
- We wanted our water heating and home heating fuel to be the same
- We preferred the new fuel choice
- Other (please specify)
- Don't know
-

What is the tank size of the water heater you have now? *

- | | |
|--|--|
| <input type="radio"/> No tank/tankless | <input type="radio"/> 75 gallons |
| <input type="radio"/> Less than 40 gallons | <input type="radio"/> 80 gallons |
| <input type="radio"/> 40 gallons | <input type="radio"/> 120 gallons |
| <input type="radio"/> 50 gallons | <input type="radio"/> Other (please specify) |
| <input type="radio"/> 65 gallons | <input type="text"/> |
| | <input type="radio"/> Don't Know |
-

Water Heater brands

What brands did you consider for the new water heater? *

- | | |
|---|---|
| <input type="checkbox"/> State Industries | <input type="checkbox"/> American Water Heater |
| <input type="checkbox"/> Bosch | <input type="checkbox"/> Bradford White |
| <input type="checkbox"/> Kenmore or Sears | <input type="checkbox"/> Takagi |
| <input type="checkbox"/> Apollo | <input type="checkbox"/> Reliant |
| <input type="checkbox"/> Maytag | <input type="checkbox"/> AO Smith |
| <input type="checkbox"/> Rheem or Ruud | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Rinnai Tankless unit | <input type="text" value=""/> |
| | <input type="checkbox"/> Don't Know |

Water Heater installation time

Which brand of water heater did you finally purchase?

Did you consider a heat pump or hybrid water heater?

- Yes
- No

Was the replacement an emergency requiring replacement within one or two days of failure? *

- No
- Yes
- Don't know

Replacement Process

What was the first step you took to replace your water heater? *

- Called a plumber
- Called a contractor
- Researched online
- Went to a store

- Called a friend or family member
 - Don't know
 - Other (please specify)
-

Which of the following resources did you use to make a decision about the water heater? *

- Online forum or website
 - Contractor
 - Salesperson at a retail store
 - Plumber
 - Friend or family member
 - Other (please specify) *
 - None of the above
-

Which of the following additional sources of information, if any, did you use to decide which water heater to purchase?

(Please check all that apply) *

- Yellow Energy Guide label
 - Utility help desk or utility website
 - Internet
 - Salesperson
 - Word of mouth
 - Other (please specify) *
 - None of the above
-

Purchase place

Where did you finally purchase your water heater?

- Ordered by phone

- Plumbing supply store (George Morland, Fergusons, Keller Supply, Thurman Supply, General Pacific)
 - National home improvement store (Home Depot, Lowe's)
 - Plumber
 - Local (non-chain) hardware store
 - Chain hardware store (Ace Hardware, True Value Hardware)
 - Buying Club (Costco, Sam's)
 - Online store
 - Chain store (Sears)
 - Other (please specify)
 - Don't Know
-

Including types, models and brands, how many different water heaters did you consider before purchasing? *

- One
 - Two to three
 - Four or more
 - Not sure
-

Who made the decision on which new water heater to purchase? *

- Me or my spouse/partner
 - A trusted friend
 - A plumber or contractor
 - Not sure
-

Installation

Which statement best describes how you typically act when you have a straight-forward home improvement project that takes several hours but no more than a day to do? *

- It depends on the project
- I purchase the supplies and then hire a contractor or plumber to install
- I hire a contractor to take care of everything
- I purchase the supplies and do the installation myself
- Don't Know

Importance

Please rate the importance of each of the following factors in your decision-making process for the water heater on a scale of 1 to 5 with 1 being "not at all important" and 5 being "very important". *

	Not at all Important 1	2	3	4	Very Important 5	Don't know
Energy efficiency or operating costs *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability/in stock *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY STAR Seal *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Color or design *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quiet/noise level *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size of the unit *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebate or other incentive *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendation from salesperson/contractor *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank life *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there any other factors that affected your decision? (OPTIONAL)

Pricing

What was the approximate cost of your new water heater unit, including any installation costs? *

- Less than \$400
- \$401–\$500
- \$501–\$750
- \$751–\$1,000
- \$1,001–\$1,500
- More than \$1,500
- Don't know

How important is price to you in purchasing a new water heater? *

- Most important
- Very important
- Important
- Not very important
- Not important at all

Did you get prices from more than one source? *

- Yes
- No
- Don't know

Energy Star

Energy efficient water heaters save customers money every year on their annual electric bills by heating water more efficiently. They are manufactured by leading water heater manufacturers, and have the same tank life and warranties as a standard water heater. Knowing this, how likely would you be to purchase an energy efficient water heater next time you need a water heater? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

After taxes credits and rebates, the ENERGY STAR water heater costs \$500 more than a standard water heater. If this water heater is available when you are shopping for your next water heater, how likely will you be to purchase it? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

Rebates and Credits

Which of the following were you aware of when purchasing your water heater?
(Please select all that apply.) *

- Retailer rebates
 - State income tax credit
 - Utility rebates
 - Manufacturer rebates
 - I wasn't aware of any of these
-

Did you or do you intend to apply for a rebate for the new water heater? *

- Yes
 - Not sure
 - No
-

Did you or do you intend to apply for a tax credit for the new water heater? *

- Don't know
 - No
 - Yes
-

If you could finance your water heater through your utility and pay a monthly charge for an energy efficient model, how likely would you be to participate in this program for your next water heater? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

If you could get interest-free financing for 6 to 12 months on an energy efficient water heater, how likely would you be to finance a new energy efficiency water heater next time you purchase? *

- Very likely
 - Somewhat likely
 - Not sure
 - Not very likely
 - Not at all likely
-

Of all the options available to motivate or encourage customers to purchase an energy efficient water heater, which of these is the most appealing to you? *

- Monthly payments through my utility

- A rebate after purchasing
 - Interest-free financing
 - A tax credit
 - Don't know
 - None of the above is appealing
-

Is there anything else you'd like to tell us about water heaters? (OPTIONAL)

Demographics

The last few questions are for classification purposes only. Your survey responses will not be associated with any personally identifiable information.

What is your zip code? *

Which of the following best describes your educational background? *

- Some high school
- High school graduate
- Trade or technical school
- Some college
- College graduate
- Some graduate school
- Graduate degree
- Decline to answer

Do you own your home or do you rent? *

- Own
 - Rent
 - Decline to answer
-

What is your gender? *

- Male
 - Female
 - Decline to respond
-

Which of the following categories includes your age? *

- 18 to 24
 - 25 to 34
 - 35 to 44
 - 45 to 54
 - 55 to 64
 - Over 65
 - Decline to answer
-

Lastly, which of the following categories contains your annual household income from all sources in 2010 before taxes? *

- Less than \$20,000 per year
- \$20,000 to \$49,000
- \$50,000 to \$74,000
- \$75,000 to \$99,000
- \$100,000 or more
- Decline to answer

Panel Complete

Enter to Win

Thank you for completing our survey! If you'd like to be entered in our drawing please fill out the information below. The Grand Prize is an iPad 2, plus there are 3 additional prizes of \$100 Amazon Gift Cards and 100 \$25 Amazon Gift Cards or Chinook Books.

Winners will be notified by November 30, 2011. Limit one winner per household. Void where prohibited.

First and Last Name

E-mail Address

Phone Number

Do you attest that you are eligible to enter this drawing and are a citizen or legal resident of the United States? This drawing is void where prohibited by law.

Yes

No

Disclaimer:

This survey is only open to Homeowners who are residents of the states of Idaho, Montana, Oregon and Washington. If you are not a resident of these states or a Homeowner, or if you do not complete this survey, you may not qualify to participate in this Drawing. You may not enter this Drawing if your local governing laws do not permit such a Promotion. Please consult your local governing laws before participating in this Drawing. You must be at least eighteen (18) years of age to participate in the Drawing. No purchase is necessary to participate in the Drawing.

To be eligible to receive the Offer in the Drawing you must complete the survey information. If you omit any of the required items for the profile information, you will not be entered to receive the Offer. Only one entry per person, per household is valid. All respondents shall provide accurate information about their identity.

Your information will only be used for the purposes of entering you into the Drawing for the Offer. For more information about our privacy policy, please visit our web site at <http://www.verimovation.com/aboutus.php?Privacy-Policy-8>

No responsibility is assumed for lost, late, incomplete, stolen, or misdirected entries; or for any computer, cable, network, satellite, electronic or Internet hardware or software malfunctions, failures, connections, traffic congestion, or unauthorized human intervention.

You also hold Verimovation Inc. and its assigns harmless of any result from your filling out this survey and entering the Drawing. All information

you provide will become the property of Verinnovation Inc. and its assigns and will not be shared with others. Verinnovation Inc. reserves the right to determine eligibility for this Drawing and the Offer.

Thank You!

Thank you for taking our survey. Your response is very important to us.

Homeowner In Depth Interviews

Goal: Understand trends, understand market impacts, gather sources for more demographic market data

Hypotheses

- 1) Heat pump water heaters (HPWHs) have legitimate technical drawbacks that are holding back sales
- 2) HPWHs work well, yet are still perceived as untested & new
- 3) HPWHs are not well marketed, particularly to cutting edge
- 4) HPWHs are too expensive

Introduction

Hi, this is _____ and I am calling from VI. As you know from signing up for our Wisdom XChange Online, we are conducting a market study to update a 2006 survey of the water heater market. Do you have 15 to 20 minutes to share your experience with your water heater?

Great! Let's get started by locating where you are in the Northwest. What is your zip code?

What type of water heater do you currently have *[do not read unless asked]*?

- Tankless Water Heater
- On Demand Water Heater
- Heat Pump Water Heater
- Hybrid Water Heater
- Indirect Water Heater
- Integrated Water Heater
- Solar Water Heater

What type of fuel does your water heater use?

- Electric
- Gas
- Other
- Unsure

How old is your current water heater? *Do not read. Select the appropriate range*

- 0-5 years

- 6-8 years
- 9-14 years
- 15-19 years
- 20+ years
- Unsure

[If water heater is older than 5 years] Do you plan to replace your current water heater any time soon? Why or why not?

Do you know the brand of your water heater? If so, which one is it? *[Do not read]*

- Rheem or Ruud
- AO Smith
- Maytag
- State Industries
- Bradford White
- American Water Heater
- Kenmore or Sears
- Reliant
- Apollo
- Rinnai Tankless
- Bosch
- Takagi
- Other: _____

Did you purchase your current water heater? If so, how did you go about purchasing it?

Where do you go for trusted information about home appliances?

Overall Water Heater Market

Which types of water heaters have you heard about *(read and select all that apply)*:

- Tankless Water Heater
- On Demand Water Heater *[same as above, but checking for awareness]*
- Heat Pump Water Heater
- Hybrid Water Heater *[same as above, but checking for awareness]*
- Indirect Water Heater
- Integrated Water Heater
- Solar Water Heater

In your opinion, which water heaters would be better than a heat pump water heater?

What have been the biggest changes you've seen in the water heater (and/or appliance) market over the last 5 years? *[If not volunteered, ask about the economy, new technology, federal standards, energy prices, rebates and other incentives, and financing.]*

What will be the most influential factors that could change the way you purchase home appliances, particularly water heaters? *[If not volunteered, ask about the economy, new technology, federal standards, energy prices, rebates and other incentives, and financing.]*

Cost and Financing

Do you set a budget when purchasing home appliances?

- No
- Yes *[if yes:]*
 - What do you expect to pay for a typical water heater? _____
 - How about for installation? _____

On a scale of 1 to 5, with 5 being very important, how important is cost in your decision making process? 1 2 3 4 5

Does that level change when you have an emergency situation? Yes No
If yes, how?

Imagine for a moment that you were seriously considering a heat pump water heater or other high efficiency water heater. When do you expect to have recouped the upfront cost through savings on your utility bill? *[Do not read: Record Range]*

- In less than a year
- 12-18 months
- 18-24 months
- 2+ years

- Unsure

Would you pay a premium for high efficiency water heater?

- No
- Yes : If so, how much *[do not read: select the appropriate range]*?
 - \$1500 or more
 - \$1200 to 1499
 - \$950 to 1199
 - \$750 to 949
 - \$500 to 749
 - Less than \$500

Would you consider financing your next water heater? Yes No
Why or why not?

Do you consider rebates or tax incentives when purchasing appliances? Yes No
What types of offers do you recall and which ones persuaded you to buy?

We are looking for ways to improve the market for high efficiency water heaters in the Northwest.
Do you have any suggestions for ways that we can get more NW homeowners to buy high efficiency water heaters?

Thank you for your time!

Plumbing Supply In Depth Interview

Goal: Understand trends, understand market impacts, gather sources for more demographic market data

Hypotheses

- 1) Heat pump water heaters (HPWHs) have legitimate technical drawbacks that are holding back sales
- 2) HPWHs work well, yet are still perceived as untested & new
- 3) HPWHs are not well marketed, particularly to cutting edge
- 4) HPWHs are too expensive

Introduction

Hi, this is _____ and I am calling from VI. We are conducting a market study to update a 2006 survey of the water heater market. You were identified as a leading supplier in this market. Do you have 15 minutes to share your expertise about the water heater market?

[If they say no:] Thank you for your consideration and have a great day!

If they say yes: Great! Then let's get started with a couple of questions about sales figures.

Sales Figures

1. What parts of OR, ID, WA and MT does your company serve? <i>Circle which states</i>	OR WA ID MT	
2. *How many residential water heater units did you sell last year in the Northwest? <i>Get the percent or total by state if they serve more than one state.</i>	_____	
3. *Was this more or less water heaters than the year before? By how many? <i>Or get percent increase or decrease if no total is available.</i>	More Less	
4. *How many residential water heaters do you expect to sell this year? <i>Get percent increase or decrease if no total available.</i>	_____	
5. Are you one of the major suppliers of water heaters in this region?	Yes No	
6. *What percentage of your water heater sales are gas versus electric?	Gas _____ %	Elec _____ %
7. What brands do you sell? *	Gas Brands	% of Total

<p>Can you provide the percentage of each that you sell? <i>By fuel if there are differences.</i></p>	<p>Electric Brands</p>	<p>% of Total</p>
<p><i>If percentages are not available for all:</i> Which are your two main water heater brands? Or which brands make up more than half of your sales?</p>		
<p>8. *What percentage of your <gas, electric> water heater sales is to the new construction market?</p>	<p>Gas _____%</p>	<p>Elec _____%</p>
<p>9. *What percentage of your <gas, electric> water heater sales is to the replacement market? <i>Should be 100%-Q8, but confirm.</i></p>	<p>Gas _____%</p>	<p>Elec _____%</p>
<p>10. *What percentage of your replacement sales result from emergency versus planned replacements?</p>	<p>Emergency %</p>	<p>Planned %</p>
<p>11. *Do you sell tankless units? If so, what percentage of your <gas, electric> water heater sales are tankless? <i>By fuel.</i></p>	<p>Gas _____%</p>	<p>Elec _____%</p>
<p>12. *Do you manufacture indirect units? If so, what percentage of your sales are indirect? <i>By fuel.</i></p>	<p>Gase _____%</p>	<p>Elec _____%</p>
<p>13. *Do you sell heat pump water heaters (also known as hybrid water heaters)? If so, what percentage of your sales are heat pump water heaters?</p>	<p>Yes No _____%</p>	
<p>14. Why do you think heat pump water heaters are a small percentage of the overall market? <i>Probe for ideas as to market barriers specifically around heat pumps.</i></p>		
<p>15. *What percentage of your <gas, electric> tanks are: Less than 40 gallons 40 to 60 gallons</p>	<p>Gas _____% _____% _____%</p>	<p>Electric _____% _____% _____%</p>

Over 60 gallons <i>By fuel.</i>		
16. *What are the top-selling premium features in the <gas, electric> water heater market? <i>Might include tankless, forever tank, or stainless steel. By fuel.</i>	Gas	Elec
17. *To whom do you sell your water heaters (as a percentage)? <i>By fuel.</i>	Gas	Elec
Retailers	_____ %	_____ %
Installers	_____ %	_____ %
Direct to Consumers	_____ %	_____ %
Builders/Contractors	_____ %	_____ %
Other	_____ %	_____ %

Marketing Activities and Trends

18. What do you perceive are the latest trends in water heating products?	
19. How regularly are you in contact with the sales representatives who supply your water heaters? (READ):	Once a week or more Several times a month Once a month Once or twice a quarter Less than once a quarter
20. Please walk me how your top customers buy from you. <i>Probe to get detailed information on the sales process.</i>	

<p>21. Please describe the supply chain and the process you use to get your water heaters.</p> <p><i>Be sure to identify the type of players and how they interact with that company (dedicated representative, field visits, sales staff, etc.)</i></p>	
<p>22. Do you have different sales strategies or techniques for different regions around the Northwest? If so, can you describe some of the differences and the regions they address?</p>	<p>Yes No Open Ended</p>
<p>23. Who in your industry do you see as the overall sales leader? Why?</p>	

Sales Process

<p>24. In your opinion, if a customer needs a new water heater, where do they typically go to get information or start the process?</p>	<p>Big Box Store (Home Depot, Lowe's) Hardware Store (TruValue) Installer Internet/Online Public Utility Other, specify</p>
<p>25. In your opinion, do customers typically "shop around" for water heaters, or do they rely on a trusted source for information?</p>	<p>Shop Around Rely on Trusted Source</p>
<p>26. *In your estimation, what percentage of orders result from end users/consumers who visit your site in search of information about water heaters?</p>	<p>_____ %</p>
<p>27. Do you offer any incentives for the end user/consumer on particular water heater models?</p>	<p>Yes No</p>
<p>28. Do you provide customers with information about efficiency tax credits?</p>	<p>Yes No</p>
<p>29. Do any of the utilities in your area offer rebates on water heaters? If yes, do you participate in these water heater rebates? How?</p>	<p>Yes No Yes No</p>
<p>30. What, if any, financing tools and incentives do you think the industry should provide to encourage the purchase of high efficiency, higher cost water heaters by consumers?</p>	<p>Open Ended</p>
<p>31. We are looking for ways to improve the market for high efficiency water heaters in the Northwest. Do you have any suggestions for ways that we can help suppliers like yourself sell and distribute more high efficiency units?</p>	<p>Open Ended</p>

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Closer:

Thank you for participating in our Water Heater Market Study today.

NEEA Water Heater Market Update Study

Ride Along Briefing

Purpose

The purpose of these in depth ride along interviews is to gain understanding regarding the following:

- How do contractors and homeowners purchase water heaters?
- How do customers interact with salespeople?
- How significant is price when deciding on different water heater types eg electric, gas and hybrid (heat pump)?
- How important are brands? Are the benefits / features of the different types of heater clear and understandable?
- Will people pay more to save more?
- How significant is ease of installation in the buying decision?
- What is the reason for buying a new water heater – replacement before breakdown occurs, remodeling, new installation, repair?
- How comfortable is the buying experience eg is information available? Is it understandable or overwhelming? Are store staff helpful?
- Are the benefits / features of the different types of heater clear and understandable?
- What brands and maintenance issues are coming up for installers?
- What is the installer doing to ensure that the homeowner understands warranty information?
- What is the installer doing to ensure that the homeowner is clear on the maintenance and the features of the unit?

Installer Selections

We are interested in understanding the purchasing process of consumers (homeowners) and suppliers (installers/plumbing contractors). We will select **three** installers based on their familiarity with water heaters. Respondents must be 18 years or older and be a professional installer of water heaters.

Ride Along Process

One interviewer will spend the day with an installer to learn more about the installation process. The interviewer must be able to observe at least two water heater installs, and have the ability to ask questions of the installer during the ride along. We would like to capture the interviews on video to assist the interviewer with note-taking and the analysis team with review.

The timing includes one eight-hour day for each installer. The interviewer should also have the option to ask the customer if they can interview them at the home during the installation. If possible, the interviewer would like to get permission from the homeowner prior to the day of the installation appointment.

Items in bold italics will be provided by Verinnovation.

- Arrive at the installer's place of work for an introduction and completion of the necessary forms
- Observe the scheduling and preparatory process in the facility
- Accompany the installer in the truck while asking questions about the water heater purchase and installation process.
- Upon arrival at the customer location, the installer will ask the homeowner if they can conduct an interview about their water heater purchase.
 - If the prospect declines, hand them a ***convenience card*** to participate online
 - If prospect agrees, identify if the participant is a the head of household and conduct the interview
- Upon completion of the homeowner interview, give the incentive and ***information flyer*** to the participant
- Return to the installer's office location for wrap up. Includes hand off of the incentive and distributing contact information in case the installer has follow up questions.

NEEA Ride Along Installer Interview

These are seed questions for the supplier Ride Alongs. Instructions to the interviewer are in blue italics.

If they head to the store to start the day

- Qy_RAI-01. How much time do you plan to spend in the store today?
 Qy_RAI-02. Are you planning to purchase a water heater today?
 Qy_RAI-03. If so, are you primarily researching water heaters or ready to purchase one?
 Qy_RAI-04. *If ready to buy, ask:* Which water heater do you plan to buy?
 Qy_RAI-05. Why are you buying this one?
 Qy_RAI-06. What research have you done before coming into the store today?

Sales Figures

- Qy_RAI-07. How many residential water heaters did you install last year?
 Qy_RAI-08. How many do you expect to install in 2011?
 Qy_RAI-09. What percentage of your business is water heater installs?
 Qy_RAI-010. What percentage of your water heater installs is gas versus electric?
 Qy_RAI-011. Do you also sell water heaters? If so, do you install all the water heaters that you sell?
 Qy_RAI-012. Do you install other appliances? Approximately what percentage of your service calls is for water heater installs?
 Qy_RAI-013. What percentage of your installs is for new construction?
 Qy_RAI-014. Do you also do installs for commercial facilities? How about multifamily buildings (i.e. condo and apartment buildings)?
 Qy_RAI-015. Do you do any active marketing for your installation services? If yes, what do you do?

Customer Call Information

- Qy_RAI-016. What is the specific issue with your customers' water heaters?
 Qy_RAI-017. How old are the water heaters you plan to replace today?
 Qy_RAI-018. How many water heaters do you service in a typical month?
 Qy_RAI-019. What percentage of your customers likes to install their water heaters themselves before giving you a call?
 Qy_RAI-020. What percentage of your business is a result of emergency replacements vs. planned replacements?
 Qy_RAI-021. How do you educate your customers about efficient water heaters?

- Qy_RAI-022. What features are you selling them prior to the install?
- Qy_RAI-023. What are the most important factors you (and customers) consider when selecting a water heater for emergency replacement? *Try to find out how much thought goes into the equipment choice or if customers leave the decision to the installer.*
- Qy_RAI-024. What are the most important factors you (and customers) consider in order to get a planned replacement installed? *Try to find out how much thought goes into the equipment choice or if customers leave the decision to the installer.*

Supplier Purchasing and Brands

- Qy_RAI-025. Do you typically get your water heaters from a retailer or distributor?
- Approximately what percentages for each?
 - Why do you get more of your water heaters from <x> rather than <y>?
- Qy_RAI-026. Do you purchase water heaters for resale to your customers, or do your customers typically purchase their water heaters from a retailer or distributor?
- Qy_RAI-027. How much research do you do online for water heaters?
- Qy_RAI-028. Which of these water heaters have you heard of?
- Tankless/On Demand
 - Heat Pump / Hybrid
 - Indirect
 - Integrated
- Approximately how many of each (either in numbers or percentages) have you installed in the last five years?
- Qy_RAI-029. What fuel types for water heaters have you installed? Do you have an approximate percentage or number of how many of each you have installed in the past five years?
- Natural Gas
 - Propane
 - Electric
 - Fuel Oil
 - Solar
 - Other
- Qy_RAI-030. What are your two main water heater brands?
- Qy_RAI-031. What's the average size of the water heater tanks?
- Qy_RAI-032. Do you ever purchase water heaters online? If yes, why?
- Qy_RAI-033. Does it matter to you what kind of water heater you install? Do you have a preference? If yes, please explain.
- Qy_RAI-034. Do you work with a distributor or sales representative to purchase your water heaters? How about other supplies? Can you describe that process to me?
- Qy_RAI-035. What percentage of your total water heater installations includes replacing an electric water heater with a gas unit?
- Qy_RAI-036. What are the biggest barriers for conversions from electric to gas (other than no gas in the building)? *Probe for costs and specifics.*

Markets and Trends

- Qy_RAI-037. In your opinion, if a customer needs a new water heater, where do they typically go to get information and/or start the process?
- Qy_RAI-038. In your opinion, do customers typically “shop around” for water heaters and make their purchasing decision on their own, or do they rely on a trusted source for information?
- Qy_RAI-039. What trusted resources do your customers use in their shopping process?
- Qy_RAI-040. What are the top features your customers look for when they have to replace their gas and electric water heaters? *Might include tankless, forever tank, or stainless steel. Encourage them to distinguish their responses by fuel.*
- a. Of these, which are the two most important things people care about, in your opinion?
- Qy_RAI-041. Are the customer’s needs different if the replacement is planned versus an emergency situation?
- Qy_RAI-042. Do your customers tend to purchase the exact same type and same brand of water heater they currently have? Why or why not?
- Qy_RAI-043. What do you perceive are the latest trends in residential water heating?
- Qy_RAI-044. What recommendations do you have to get customers to pre-plan their water heater purchases?

Heat Pump Water Heaters and Efficiency

- Qy_RAI-045. How often do you discuss energy savings and high efficiency appliances with your customers?
- Qy_RAI-046. What types of information do you provide customers about efficiency products?
- Qy_RAI-047. What are the biggest barriers to getting customers to buy more efficient water heaters?
- Qy_RAI-048. Have you ever installed a heat pump, or hybrid, water heater? If no, why not? *Probe to understand the barriers to heat pump water heater installations. Complexity? Training? Awareness? Time? Other?*
- Qy_RAI-049. Most water heaters sold today are gas or electric, but not necessarily a heat pump water heater. Why do you think this is?
- Qy_RAI-050. Based on our conversation about heat pump water heaters, do you have any ideas that would encourage more customers to buy and install one?

Financing and Costs

- Qy_RAI-051. What is your average charge for a gas water heater? How about electric water heater?
- Qy_RAI-052. What is your average charge for water heater installation? Is there a difference between gas and electric? *If so, probe to clarify.*

Qy_RAI-053. Do you offer warranties on the installation? How about on the equipment? *Probe to learn details.*

Qy_RAI-054. Do you think more customers would buy more high efficiency units if they had financing options? Why or why not? *Probe for more.*

Qy_RAI-055. NEEA is looking for ways to improve the market for high efficiency water heaters in the Northwest. Do you have any suggestions for ways that NEEA can help installers like yourself install more high efficiency units?

NEEA Ride Along Homeowner Interview

These are seed questions for the supplier Ride Alongs. Instructions to the interviewer are in blue italics.

Hello, my name is _____ and I'm here representing the Northwest Energy Efficiency Alliance. This organization is accompanying installers today and interviewing homeowners to learn more from you about how you shop for certain appliances. We would like to ask you questions about your water heater replacement and capture the responses on video. Do you have a couple of minutes to spend with us? For your time, you will receive a **\$10 gift card** and will be entered to win a Chinook Book.

Note to Interviewer: Record the model and brand prior to the install; no need to ask the homeowner. Observe and listen to the types of information that the installer is giving the homeowner. Is he leaving behind any materials? What types of questions are homeowners asking?

Model: _____

Brand: _____

Materials leaving behind: _____

Questions being asked: _____

Would you like to participate?

- No (TERMINATE)
- Yes

May we videotape this conversation?

- Yes
- No

Discuss the interview release form and how you will use the camera. This interview is estimated to last 30 minutes.

Great! Let's get started.

Current Water Heater Info

Qy_RAH-01. Is your current water heater working or not working?

- a. Working

b. Not Working

Qy_RAH-02. If not working, when did your water heater break?

- a. Today
- b. Yesterday
- c. Two days ago
- d. Three to six days ago
- e. More than a week ago
- f. Unsure

Qy_RAH-03. If working, why did you choose to replace your water heater? _____

Qy_RAH-04. What type of water heater do you have now?

- a. Electric
- b. Gas
- c. Other
- d. Unsure

Qy_RAH-05. How old is your current water heater?

- a. 0-5 years
- b. 6-8 years
- c. 9-14 years
- d. 15-19 years
- e. 20+ years
- f. Unsure

Prior Research on WH's

Qy_RAH-06. Did you buy the exact same type and same brand of water heater as you had previously?

- a. Yes
- b. No
- c. Not sure

Qy_RAH-07. Which of the following have you heard of?

- d. Tankless Water Heater
- e. On Demand Water Heater
- f. Heat Pump Water Heater
- g. Hybrid Water Heater
- h. Indirect Water Heater
- i. Integrated Water Heater
- j. Solar Water Heater

Qy_RAH-08. What type of water heater did you choose? *Record fuel and type.*

Why? _____

- Qy_RAH-09. What research did you do prior to purchasing your water heater? *Probe for: word of mouth, other people you work with, other people outside of your company (i.e. other friends/also contractors), your customers, online, magazines.*
- Qy_RAH-010. After completing your research, what did you do?
- Qy_RAH-011. Can you walk me through how you purchased your water heater?
- Qy_RAH-012. What resources do you trust for information about water heaters and other home improvement appliances?
- Qy_RAH-013. Did you learn anything new about water heaters in doing your research?
- Yes *Probe for details*
 - No
- Qy_RAH-014. Have you done any research on WH's on the internet?
- Yes
 - No

Awareness/Initial Interest in HPWH's

- Qy_RAH-015. Did you work with an industry professional to help with your current water heater choice?
- Yes, a contractor
 - Yes, my installer
 - Yes, a specialist at a retail store
 - Someone else *Probe to find out who*
 - No
- Qy_RAH-016. If you worked with an industry professional, which of the following types of water heaters have they mentioned to you?
- Tankless/On Demand Water Heater
 - Heat Pump / Hybrid Water Heater
 - Indirect Water Heater
 - Integrated Water Heater
 - Solar Water Heater
- Qy_RAH-017. If you worked with an industry professional, which type did they recommend?
- Tankless/On Demand Water Heater
 - Heat Pump / Hybrid Water Heater
 - Indirect Water Heater
 - Integrated Water Heater
 - Solar Water Heater
- Qy_RAH-018. How much do you know about energy efficient water heaters?
- A lot
 - Some
 - Only the name/What they are
 - Never heard of
 - Not sure
- Qy_RAH-019. Would you pay a premium for an energy efficient water heater?
- No
 - Yes: If so, how much?
 - \$1500 more
 - \$1200 more
 - \$950 more
 - \$750 more

- v. \$500 more
- vi. Less than \$500 more

Qy_RAH-020. Have you heard of heat pump water heaters (also known as hybrid water heaters)?

- a. No
 - b. If yes, what did you hear about them?
- Qy_RAH-021. In your opinion, which water heaters would be better than a heat pump water heater? _____

Factors Driving Purchase

Qy_RAH-022. Which of these were most important to you in deciding the best water heater for your home? (READ AND CHOOSE TOP THREE):

- a. Reliability
- b. Quiet
- c. Safety
- d. Energy Efficiency
- e. Price
- f. Brand Name
- g. Low Maintenance
- h. Other *Probe to learn more*

Cost Issues

Qy_RAH-023. Did you have a set budget for this purchase?

- a. No
 - b. If yes, what was it? Did the budget include installation?
- Qy_RAH-024. How important was cost in your decision making process?

- a. The most important item
- b. One important item but other things are important, too
- c. Not that important
- d. Not important at all

Qy_RAH-025. How much are you paying for the install? _____

Qy_RAH-026. How much did you pay for the unit? _____

Qy_RAH-027. Imagine for a moment that you were seriously considering a heat pump water heater or other high efficiency water heater. When do you expect to have recouped the upfront cost through savings on your utility bill?

- a. In less than a year
- b. 12-18 months
- c. 18-24 months
- d. 2+ years
- e. Unsure

Financing

Qy_RAH-028. Would you consider financing your next water heater?

- a. Yes

- b. No
- Qy_RAH-029. Would you be more likely to purchase a water heater that offered you a local rebate?
- c. Yes
 - d. No
- Qy_RAH-030. Would you prefer to finance your next water heater or receive a local rebate after purchasing?
- e. Finance
 - f. Rebate
- Qy_RAH-031. Would you consider paying for your next water heater as part of your utility bill every month?
- g. Yes
 - h. No

	Contractor Intercept 3-4 Minute Interview	Critical (X)	Answer Options
A.	Introduction		
	Hello, my name is ____ and I'm here representing the Northwest Energy Efficiency Alliance. This organization is interviewing contractors, plumbers and water heater installers in this store today to learn more from you about your business. This is a short interview that will only take 3 minutes of your time. Your answers are confidential and we will not even ask for your name. Do you have a couple of minutes to answer our questions?	X	Yes/No
B.	Reason for Store visit		
	What brought you here today?	X	Open End
	Are you here representing a customer?	X	Yes/No
	Will you want to talk to a sales person today?	X	Yes/No
	Are you researching water heaters or ready to purchase one?	X	Researching/Ready to Purchase
	If ready to buy, ask: Which water heater do you plan to buy?	X	Open End
C.	Information on Customer's Current WH		
	If representing a customer, ASK: What is the specific issue with your customer's water heater?	X	Not working at all, Partially working but no hot water, Working fine, other specify
	How old is the water heating you plan to replace?	X	0-5 years, 6-8 years, 9-14 years, 15-19 years, 20+ years
	How many water heaters do you service in a typical month?		0-2, 3-5, 6-10, 11+
	What percentage of your business is a result of emergency replacements vs. planned replacements?		Planned __% Emergency __%

	What percentage do water heater installations make up of your total business?		Water Heater ___% Everything Else ___%
D.	Prior Research on WH's		
	Have you done any research on WH's before coming into the store today?	X	Yes/No
	Which of the following have you heard of?		READ: Electric, gas, tankless, HPWH/hybrid
	How important are these factors in helping you make purchasing decisions about water heaters?	X	Very/Somewhat/Not Very/Not Important At All: Talking to a salesperson, Research WH's online, Word-of-Mouth, Research WH's in a retail store like Home Depot, Sears or Lowe's, Customer Preference? Other?
	If not purchasing today, ask: Before you purchase, will you _____?	X	Yes/No for: Shop at other stores/Come back to this store/Talk to other contractors or people you know/go online/Talk to the customer
E.	Awareness/Initial Interest in HPWH's		
	How much would you say you know about energy efficient WH's such as the HPWH?		Expert, Know a lot, Know Some, Know Only the Name/What they are, Never Heard Of
	Have you ever installed a HPWH?	X	Yes/No

	If yes, ask: what percentage of these is installed because the customer already wanted a HPWH, or due to your recommendation?		Customer Wants ___% Contractor Recommends ___%
	How often do you recommend HPWH's to your customers?	X	Always, Most of the Time, Sometimes, Rarely, Never
F.	Factors Driving Purchase		
	Is your customer contact at the home the Female Head of Household or the Male Head of Household?		Female/Male/Either One
	What are your customers looking for when they have to replace their water heater?	X	Reliability, Quiet, Safety, Energy Efficiency, Low Cost, Brand Name, Low Maintenance?
	What percentage of your customers would pay a premium for an energy efficient WH? If so, how much?	X	Less than 5%, 6-10%, 11-19%, 20% or more
G.	Cost Issues		
	Do you have a set budget for this purchase?	X	If yes, is it less than \$350, \$350 to \$500, \$500 to \$650, \$650 to \$800 or more than \$800?
H.	Financing		
	Are you aware of any financing options available to customers that want to purchase a HPWH?	X	Yes/No
	Should there be financing available to customers that want to buy a HPWH?		Yes/No/Unsure
	Are you aware of any local rebate programs available to customers that want to purchase a HPWH?	X	Yes/No
	Do you think more customers would buy HPWH's if they had financing options or received a rebate after installation? If it were included as part of the monthly utility bill?	X	Yes/No/Unsure Yes/No/Unsure

Topics	HOMEOWNERS 3-4 Minute Interview	Critical (X)	Answer Options
A.	Introduction		
	Hello, my name is ____ and I'm here representing the Northwest Energy Efficiency Alliance. This organization is interviewing homeowners in this store today to learn more from you about how you shop for certain appliances. This is a short interview that will take only 3 minutes of your time. Your answers are confidential and we will not even ask for your name. Do you have a couple of minutes to answer our questions?	X	Yes/No
B.	Reason for Store visit		
	What brought you here today?	X	Open End
	Have you asked anyone for advice or a recommendation before coming here today?	X	Plumber/Contractor: Yes, No Friend/Family/Neighbor: : Yes, No
C.	Information on Customer's Current WH		
	Is your current water heater working?	X	Working/Not working
	If not working, when did your water heater break?		Today, Yesterday, Two days ago, Three to six days ago, A week ago, Unsure
	If working, why are you looking at water heaters?		Open End
	What type of water heater do you have now?		Electric, Gas, Solar, Unsure
	How old is your current water heater?		0-5 years, 6-8 years, 9-14 years, 15-19 years, 20+ years, unsure
	Do you plan to install the new water heater yourself or hire a contractor?	X	Self/Hire Someone/Unsure

D. Prior Research on WH's			
	Do you expect to buy exactly the same type and brand of water heater as you have currently?	X	Yes/No
	Which of the following have you heard of? (READ):	X	Electric, Gas, Tankless, HPWH, Indirect
	Have you done any research on WH's before coming into the store today?	X	Yes/No
	Have you done any research on WH's on the internet?	X	Yes/No
	Before you purchase, will you _____?	X	Shop at other stores/Come back to this store/Talk to people you know/Talk to a contractor/Go online
E. Awareness/Initial Interest in HPWH's			
	If you are working with a contractor, which of the following types of water heaters have they mentioned to you?		Electric, Gas, Tankless, HPWH, On-demand
	If you are working with a contractor, which type do they recommend?	X	Electric, Gas, Tankless, HPWH, On-demand
	How much do you know about energy efficient WH's ?		Expert, Know a lot, Know Some, Know only the Name/What they are, Never heard of
	Would you pay a premium for an energy efficient WH? If so, how much?	X	If Yes, would you pay \$1500 more total, \$1200, \$950, \$750 more total, \$500 more total or would the difference have to be less than \$500?

F.	Factors Driving Purchase		
	Which of these are most important to you in deciding which WH will be best for your home? (READ AND CHOOSE TOP THREE):	X	Reliability, Quiet, Safety, Energy efficiency, Low cost, Brand name, Low maintenance, Other?
G.	Cost Issues		
	Do you have a set budget for this purchase?	X	If yes, is it less than \$350, \$350 to \$500, \$500 to \$650, \$650 to \$800, or more than \$800?
H.	Financing		
	Would you consider financing your next water heater over the next 6 to 12 months?	X	Yes/No
	Would you be more likely to purchase a water heater that offered you a local rebate?	X	Yes/No
	Would you be more likely to purchase a HPWH that offered you a local rebate?	X	Yes/No
	Would you prefer to finance your next water heater or receive a local rebate after purchasing?	X	Finance/Rebate
	Would you be interested in paying for your next water heater as part of your utility bill every month?	X	Yes/No

	CONTRACTORS Tag-Along Interview	Critical (X)	Answer Options
A.	Introduction		
	Hello, my name is ____ and I'm here representing the Northwest Energy Efficiency Alliance. This organization is interviewing contractors, plumbers and water heater installers in this store today to learn more from you about your business and your customers buying water heaters. We would like to ask you questions about your store visit to help us learn how people shop for water heaters these days. Your answers are confidential and we will not even ask for your name. Do you have a couple of minutes to spend with us? For your time, you will be given a \$20 gift card.	X	
B.	Reason for Store visit		
	What brought you here today?	X	Open End
	Is this your first visit to a store?	X	Yes/No
	How much time do you plan to spend in the store today?		Less than 5 minutes, 5-9 minutes, 10-14 minutes, 15 minutes+
	Are you researching water heaters or ready to purchase one?	X	Researching/Ready to Purchase
	If ready to buy, ask: Which water heater do you plan to buy?	X	Open End
	Why are you buying this one?	X	Open End?
C.	Information on Customer's Current WH		
	If representing a customer, ASK: What is the specific issue with your customer's water heater?	X	Not working at all, Partially working but no hot water, Working fine, other specify
	What percentage of your business is a result of emergency replacements vs. planned replacements?	X	Planned __% Emergency __%

D.	Prior Research on WH's		
	Have you done any research on WH's before coming into the store today?	X	If Yes, ask if they have done the following: Shopped at other stores/Been to this store/Talked to other contractors/Done research online/Talked to Suppliers
	When you come to a store to browse or purchase, do you consider all the available water heaters? Why or why not?		Yes/No
	Do you ever purchase water heaters online? If yes, why?	X	Yes/No
	If not buying today, what kind of WH are you leaning toward? Why?		Open End: DO NOT READ NAMES. SEE IF THEY NAME ONE ON THEIR OWN. Standard Tankless/on demand Heat pump/hybrid Indirect Integrated Solar Other
E.	Awareness/Initial Interest in High Efficiency Water Heaters		
	Have you ever installed a high efficiency water heater?	X	Yes/No
	Does it matter to you what kind of water heater you install? Do you have a preference? If yes, please explain.		Yes/No
	Most water heaters sold today are standard or tankless water heaters, not heat pump (or hybrid) water heaters. Why do you think this is?	X	Open End

F.	Factors Driving Purchase		
	What are your customers looking for when they have to replace their water heater?	X	Reliability, Quiet, Safety, Energy Efficiency, Low Cost, Brand Name, Low Maintenance?
	Of these, which are the two most important things people care about, in your opinion?		1 _____ 2 _____
	Are their needs different if the replacement is <i>planned</i> versus an emergency situation?	X	Yes/No
	Do your customers tend to purchase the exact same type and same brand of water heater they currently have?		Yes/No
G.	Cost Issues		
	Think about your typical customer for a minute. Is the cost of the new water heater plus installation _____?		The most important item, one important item but other things are important too, not that important or not important at all?
	With respect to high efficiency water heaters, do you and the customer discuss the fact that the homeowner will begin saving money on their energy bill? Is this persuasive?	X	Yes/No
	Do you have any ideas that would encourage more customers to install a HPWH?		Open End
	Financing		
	Do you think more customers would buy high efficiency water heaters if they had financing options or received a rebate after installation?	X	Yes/No/Unsure
	Probe for more:		Open End

Homeowners Tag-Along Interview	Critical (X)	Answer Options
Introduction		
Hello, my name is ____ and I'm here representing the Northwest Energy Efficiency Alliance. This organization is interviewing homeowners in this store today to learn more from you about how you shop for certain appliances. We would like to ask you questions about your store visit to help us learn more about water heaters. Your answers are confidential and we will not even ask for your name. Do you have a couple of minutes to spend with us? For your time, you will be given a \$20 gift card.		Yes/No
Reason for Store visit		
What brought you here today?	X	Open End
How much time do you plan to spend in the store today?		Less than 5 minutes, 5-9 minutes, 10-14 minutes, 15 minutes+
Will you want to talk to a sales person today?	X	Yes/No
Are you researching or ready to purchase?	X	Researching/Ready to purchase
Information on Customer's Current WH		
Is your current water heater working or not working?	X	Working/Not Working
If not working, when did your water heater break?		Today, Yesterday, Two days ago, Three to six days ago, More than a week ago, Unsure
If working, why are you looking at water heaters?		Open End
What type of water heater do you have now?	X	Electric, gas, Unsure
How old is your current water heater?	X	0-5 years, 6-8 years, 9-14 years, 15-19 years, 20+ years

Prior Research on WH's		
Which of the following have you heard of?		Standard Tankless/on demand Heat pump/hybrid Indirect Integrated Solar Other
Were you leaning toward one type of WH? <i>(Do not read)</i> Why?	X	Standard Tankless/on demand Heat pump/hybrid Indirect Integrated Solar Other
Have you done any research on WH's before coming into the store today? If yes, where have you gone to get information? <i>(Do not read)</i>	X	Open End, <i>probe for:</i> word of mouth, other people you work with, other people outside of your company (i.e. other friends/also contractors), your customers, online, magazines.
If Yes, did you learn anything new about water heaters in doing your research?	X	Yes/No
Have you done any research on WH's on the internet?	X	Yes/No
If Yes, did you learn anything new about water heaters in doing your research?	X	Yes/No
When you come to a store to browse or purchase, do you consider all the available water heaters? Why or why not?		Yes/No

Awareness/Initial Interest in High Efficiency Water Heaters		
I'd like to hear about your impressions of high efficiency water heaters, like heat pump water heaters. What are the advantages of high efficiency water heaters?		Open End
What are the disadvantages of high efficiency water heaters?		Open End
[Ask only if they have heard of HPWHs] In your opinion, why would a heat pump water heater be better than another high efficiency water heater?	X	Open End
Factors Driving Purchase		
What features are important to you in deciding which water heater will be best for your home? (<i>DO NOT READ, RECORD TOP THREE</i>)		Open End
What would motivate or encourage more homeowners to install a high efficiency water heater?	X	Open End
Cost Issues		
Do you have a set budget for this purchase?	X	If yes, is it less than \$350, \$350 to \$500, \$500 to \$650, \$650 to \$800 or more than \$800?
Is the cost of the new water heater plus installation _____?	X	The most important item, one important item but other things are important too, not that important or not important at all?

<p>Imagine for a moment that you were seriously considering a HIGH EFFICIENCY WATER HEATER. When do you expect to have recouped the upfront cost of investing in a high efficiency water heater through a reduced utility bill?</p>		<p>In less than a year, 12-18 months, 18-24 months, 2+ years, Unsure</p>
<p>If you recouped your initial upfront investment in the high efficiency water heater within (4/3/2 years), would you consider a high efficiency water heater instead of a standard water heater?</p>	<p>X</p>	<p>4 years: Yes/No/Unsure 3 years: Yes/No/Unsure 2 years: Yes/No/Unsure</p>
<p>Financing</p>		
<p>Do you think more customers would buy high efficiency water heater's if they had financing options or received a rebate after installation?</p>	<p>X</p>	<p>Yes/No/Unsure</p>
<p>Probe for more:</p>		<p>Open End</p>

Mystery Shopping Briefing Doc

Alex will conduct online, phone, and Montana in store mystery shopping in Home Depot and Lowes stores. He will target one physical store each in the greater Bozeman, MT area (total of two stores).

Greg and his team will conduct in store only mystery shopping in Home Depot and Lowes stores. They will target one store each in Portland, OR and Seattle, WA (total of four stores).

My recommendation is to pretend that you are in the market for new water heater. Your current water heater in this scenario is a standard 50 gallon electric water heater.

When shopping (online and offline), notice:

- What brands are they selling in store and online?
- What types of units do they carry in stock? What has to be special ordered? These include:
 - Gas, electric, solar, fuel oil, other fuel?
 - Standard tank, tankless/on demand, heat pump/hybrid, indirect, other type?
- What water heaters are being "called out" - special tags, sales, etc. Can the salesperson tell you why they are being featured?
- What rebates and incentives are being offered? Are they being offered through the store, the manufacturer, utilities, or a combination of sources? How much are they, and what does the consumer have to do to participate?
- Which ones do they sell more often? Ask this from the standpoint that you want to choose a model with a good reputation.
- What are the warranties like on the different models they offer?

Discuss with the salesperson that though your current water heater is electric, you are open to switching to gas.

- What does the salesperson recommend?
- Do they sell more gas or electric water heaters?
- What other water heaters, other than standard, do they recommend?
- Have they heard of a tankless water heater?
- You've also heard about something called a hybrid water heater. Can they tell you more about it?
- Can the salesperson tell you more about the warranties?

Feel free to write these questions on a sheet of paper so that while you're in store, you can reference them as if you have been doing online research prior to visiting the store.

When done with each shopping experience, please complete an Interview Summary Report form.

Note: none of these interviews will be openly recorded. If you can, **audio record the conversation with a hidden mic** for analysis. You don't have to do the transcription - we will pull them out if necessary.

Call the call centers T-F to avoid the crush. Visit Home Depot midday or late day during the week to avoid contractors and homeowners; Visit Lowes during the week (more popular with homeowners).

Appendix H. Study Goals and Survey Methods

Specific goals for the study included answering the following questions

- How has the market structure (specifically retail and distribution channels) for residential water heater units sold and installed in the Northwest changed since the previous report?
- How does the Northwest differ from the national structure, and is it a significant difference?
- What is the water heater market size by manufacturer, distribution channel, and gas vs. electric?
- What are the national/regional trends in the residential water heater market?
- Is there a potential value-added market for residential water heaters in which consumers would be willing to pay more for value-added features or products with a particular brand label?
- What features/benefits would most motivate consumers?
- What percent of homeowners replace their water heaters on a planned vs. emergency basis?
- Do particular brands motivate homeowners?
- Are homeowners willing to pay extra for energy saving models?
- Are homeowners willing to consider financing/leasing options?
- To what extent would homeowners consider purchasing water heaters directly through retailers (e.g., Sears, Home Depot, Costco)?

SUPPLY SIDE RESEARCH

Mode	Type	Length	Source(s)	Purpose of Method
Expert Interviews	Qualitative	20 min.	Referrals	Expert insight into the water heater market and high efficiency water heaters. Provided context for data from both primary and secondary research. Filled in data gaps that retailers and installers were unable or unwilling to share.
Phone Surveys	Quantitative	12 min.	Mailing List	Region-specific information about the water heater supplier and installer market segments.
Online Surveys	Quantitative	12 min.	Email List, Online Recruitment	Region-specific information about the water heater supplier and installer market segments.
In-Depth Interviews	Qualitative	20 min.	Mailing List, Referrals, Online Recruitment	Deeper insights on the supply side of the water heater market, as well as perceptions of homeowner behavior and attitudes from the perspectives of suppliers and installers.
On Site Ride Alongs	Qualitative	4 to 8 hours	Retailer Referrals, Mailing List	A first-hand look at the installation process, from consumers and installers. Confidential setting and lengthy one-on-one contact with installers drew candid, in-depth information about real-world interactions between homeowners and installers; installers and suppliers.
On Site Tag Alongs/ Intercepts	Qualitative	3 to 20 min.	In Store (Large Retailers)	Impromptu in-store interviews with retail staff gave insight into salespeople's knowledge, attitudes, and beliefs, and how those factors influence consumer purchasing decisions.
Mystery Shopping	Qualitative	10 to 20 min.	In Store, On Phone, Online (Large Retailers), Home Shows	Gathered information on types of water heaters stocked, recommended and sold to customers when they visited, called or went to online websites. Provided insight into differences concerning types of water heaters offered in different regions of our target market.

CONSUMER SIDE RESEARCH

Mode	Type	Length	Source(s)	Purpose of Method
Phone Surveys	Quantitative	8 min.	Mailing List	In-depth, demographically-specific information about consumer behaviors, preferences, and decision-making processes.
Online Surveys	Quantitative	8 min.	Email List, Online Recruitment	In-depth, demographically-specific information about consumer attitudes and behaviors toward water heater purchases.
In Depth Interviews	Qualitative	20 min.	Mailing List, Referrals, Online Recruitment	Provided deeper insights on homeowners' behavior and attitudes toward water heaters in general, and their awareness of and attitudes toward high efficiency water heaters.
On-Site Ride Alongs	Qualitative	20 min.	On arrival at homes	A first-hand look at the installation process, from perspectives of consumers and installers. Confidential setting and extensive one-on-one contact with installers drew candid, in-depth information about real-world interactions between homeowners and installers.
On Site Tag Alongs/ Intercepts	Qualitative	3 to 20 min.	In Store (Large Retailers)	Impromptu in-store interviews with shoppers gave insight into consumers' decision-making processes as they gathered information on purchasing choices.