

# MARKET ASSESSMENT: EFFICIENT DIRECT VENT GAS FIREPLACES IN OREGON

Submitted to:

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## ≈ EXECUTIVE SUMMARY≈

## INTRODUCTION AND PURPOSES

While these products can vary widely in efficiency, little is currently known about the market for and use of direct vent gas fireplaces in Oregon. To gauge whether this market deserves more attention, Energy Trust of Oregon (Energy Trust) undertook a telephone survey with 23 (out of a population of 50) Oregon hearth vendors during late May and June of 2009. This study sought to better understand vendor views of consumer purchases, gauge vendor understanding and promotion of high efficiency models, and collect characteristics of the market place. While the sample is small, its characteristics represent the full population of vendors.

## **KEY FINDINGS**

- ✤ Vendors said that "looks" or aesthetics were the number one factor (70%) in consumer decisions about direct vent gas fireplaces. Price and energy efficiency were distant seconds (both 56%), but notably efficiency was among the top three factors. A number of other survey responses support the notion that a strong majority of consumers do think about energy efficiency, particularly because they hope these fireplaces can reduce their heating bills, but that efficiency is not likely to take precedence over the aesthetics of their fireplace purchases.
- In selling direct vent gas fireplaces, and in response to customer demand, 69% of vendors say they are quite active in promoting high efficiency fireplace models, in part because they say customers want them, in part because they believe they provide customers the best deal, and in part because their values align with selling greener products. The remaining 31% of vendors say they do not especially promote high efficiency models.
- While 30% of vendors were able to correctly define or specify ratings for high efficiency fireplaces, others said they relied on manufacturer information to determine which models qualified as high efficiency, and still others said they were uncertain how to define it.
- The majority of vendors (61%) said that more than half of the direct vent gas fireplaces they sell have standing pilot lights, with the remaining 39% saying that 50% or less has standing pilot lights. Several companies mentioned that new models are more likely to have intermittent pilot ignition capabilities (IPI).

## ≈ EXECUTIVE SUMMARY≈

- ✤ For 57 top selling fireplace models, those with standing pilot lights had, on average, higher Fireplace Efficiency (FE) ratings<sup>1</sup> than those with IPIs, even though fireplaces with IPIs were created with efficiency in mind. The reason for this result is not clear. It may reflect standing pilot lights' ability to get to temperature more quickly or a need to revisit test assumptions. The average price of IPI units is higher than standing pilot lights units: \$2,597 to \$2,078.
- ✤ Almost three-quarters of vendors say that one-half or more of their customers rely on their fireplaces as a major heat source; data suggest this proportion is even higher outside of the Portland metropolitan area.
- The estimated annual market for the 2008-2009 heating season is 8,200 to 13,750 direct vent gas fireplaces.
- When asked about top selling models (by brand, model number, and price), Heat N Glo (20%) and Quadra-Fire (18%) were by far the most often mentioned brands, although sixteen other brands were mentioned. Vendors, on average, said that their top five models represented 72% of direct vent gas fireplace sales.
- For top selling fireplaces where FE ratings were available, the average rating was 61%. Figure 1 shows proportions of these models at various efficiency levels.
  - Figure 1 Proportion of Direct Vent Gas Fireplaces at Various Fireplace Efficiency Levels (N = 57 top sellers)



<sup>&</sup>lt;sup>1</sup>The Canadian EnerGuide rating system has standard testing, so consumers can compare different fireplaces makes and models. It provides a "Fireplace Efficiency (FE) rating based on products tested and certified to the Canadian Standards Association (CSA) test standard P.4.1-02." See <a href="http://oee.nrcan.gc.ca/publications/infosource/pub/home/all\_about\_gas\_fireplaces\_chapter3.cf">http://oee.nrcan.gc.ca/publications/infosource/pub/home/all\_about\_gas\_fireplaces\_chapter3.cf</a> m?attr=4 for more information.

## ≈ EXECUTIVE SUMMARY≈

- ✤ The prices across all 102 top models ranged from \$1,200 to \$4,300, with the average price being \$2,118.
- ✤ The price for 56 top models with an FE rating of 65% or less averaged \$2,184, while the those with an FE ratings of 66% or more were higher, averaging \$2,525.
- ✤ The average cost of installing three types of direct vent gas fireplaces varied little, ranging from \$894 to \$954.
- ✤ The estimated annual market for pellet stoves, based on the 2008-2009 heating season, is between 1,440 and 3,500 units per year.

#### ≈ SECTION ONE: INTRODUCTION AND METHODS ≈

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## PROJECT BACKGROUND AND GOALS

While greater support for consumer purchases of high efficiency direct vent gas fireplaces may offer an opportunity for cost-effective energy savings, little is currently known about the market for and use of these products in Oregon. To improve its understanding of this market, Energy Trust of Oregon (Energy Trust) undertook this survey with Oregon hearth dealers to better understand:

- 1. The importance of energy efficiency in consumer thinking when they buy direct vent gas fireplaces
- 2. The importance and understanding of energy efficiency among hearth dealers when they sell these products
- 3. Characteristics of the direct vent gas fireplace market in Oregon, including the number sold, how much they are used, their price, and their efficiency levels. Several of these characteristics will be used to describe the current market for efficient direct vent gas fireplace models.

## METHODS AND SAMPLE OF VENDORS

Energy Trust staff worked with an expert representative from the industry's professional organization, the Oregon Hearth, Patio & Barbecue Association (Oregon HPBA), and with Dethman & Associates, a research and evaluation firm in Seattle, Washington, to develop an interview guide (see Appendix A) for hearth vendors that addressed the project goals listed above. Energy Trust and Oregon HPBA assembled and provided a contact list for the population of 50 hearth vendors throughout Oregon.

Prior to the survey, Energy Trust and Oregon HPBA jointly sent a letter (see Appendix A) to fireplace vendors asking them to cooperate in a telephone survey in May and June of 2009 to help Energy Trust gauge the need to provide greater incentives for consumers to buy high efficiency direct vent gas fireplaces. Our goal was to interview 20 of the 50 vendors, concentrating on reaching the largest ones

#### ≈ SECTION ONE: INTRODUCTION AND METHODS ≈

according to employment figures included the list.<sup>2</sup> This sampling approach allowed all sizes of vendors and a large proportion of sales to be represented.

In all, we interviewed 23 or 46% of Oregon hearth vendors. Tables 1-3 below provide further information about the sample of vendors represented in this study. Taken together, they show the sample provides a robust and representative source of information about the views of hearth vendors and the direct vent gas fireplace market.

**Table 1** shows vendor size based on the number of employees; data were taken either from state employment data or from vendor reports at the time of the survey. Based on state figures, the sample, as intended, somewhat overrepresents the larger vendors and includes a good range of vendor sizes. As shown in the far right columns of the table, and consistent with a number of vendor comments, state employment figures are likely inflated due to the slow time of year and a weak economy. According to vendor reports, 13 of the 23 vendors (57%) had 9 or fewer employees, while 7 (31%) had 10-19 employees, 1 (4%) had 20 or more employees, and 2 (8%) had 50 or more employees.

	Population -		Sample –		Sample –	
	State Emp	oloyment	State Employment		Vendor Reported	
	Da	ta	Data		Data	
	Ν	Percent	Ν	Percent	Ν	Percent
Very small (1-4)	14	28%	4	17%	6	26%
Small (5-9)	12	24%	6	26%	7	31%
Medium (10-19)	10	20%	8	35%	7	31%
Large (20-49)	7	14%	4	17%	1	4%
Very Large (50+)	1	2%	1	4%	2	8%
Don't Know	6	12%	-	-	-	-
Totals	50	100%	23	100%	23	100%

Table 1	Distribution of	Vendors Based or	Number of Fm	plovees
	Distribution of	V CHIGOIS DUSCU OI		picyccs

**Table 2** on the next page compares the population and sample on membership in the Oregon HPBA and the location of the vendors. Members in professional organization are somewhat better represented in the survey sample, likely because we focused on larger vendors. The geographic spread of vendors in the sample corresponds quite well to the geographic distribution in the population.

<sup>&</sup>lt;sup>2</sup> Results of the survey showed the correspondence between the list's employment figures and vendor-reported figures did not always coincide.

#### ≈ SECTION ONE: INTRODUCTION AND METHODS ≈

	Population		San	nple
Members	35	70%	19	83%
Non-Members	15	30%	4	17%
	50			
Location				
Northern Oregon	20	40%	7	30%
Willamette Valley	14	28%	6	26%
Southern Oregon	6	12%	4	17%
Coastal Oregon	6	12%	4	17%
Eastern Oregon	4	8%	2	9%
	50		23	

## Table 2 Membership in Oregon HPBA and Location of Vendors

As shown in **Table 3**, most of the 23 vendors (65%) had only one location, while 6 of them (26%) had 2 locations, 1 (4%) had 4 locations, and 1 (4%) had 9 locations.

#### Table 3 Number of Store Locations

# of Locations	Ν	Percent
One	15	66%
Two	6	26%
Four	1	4%
Nine	1	4%
Total	23	100%

## ≈ SECTION TWO: FINDINGS ≈

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## VENDOR VIEWS ABOUT ENERGY EFFICIENCY

## **Customer Preferences and Interest**

Hearth vendors were asked several questions to gather their perspectives on customer thinking when they purchase direct vent gas fireplaces. When asked "What are the most important factors in customer buying decisions?" they reported (see **Table 4**) that "looks" or aesthetics were the number one factor (70%), followed by price (56%), and energy efficiency (56%). Sizing (22%), features (22%), quality (9%), and safety (4%) all were considerably further down the list of what vendors reported as customer priorities.

	N of	Percent of 23
	Responses	Respondents
Looks (including flames)	16	70%
Price	13	56%
Efficiency	13	56%
Sizing/ability to heat space	5	22%
Features	5	22%
Quality	2	9%
Safety	1	4%

#### Table 4 Most Important Factors in Customer Purchases of Direct Vent Gas Fireplaces

Vendors were then asked to specifically rate how concerned customers were about the energy efficiency of the direct vent fireplaces they buy. As shown in **Table 5**, three-quarters of vendors rated their customers as being very (4%) or somewhat concerned (70%) about fireplace energy efficiency, 22% gave a neutral rating, and only one company (4%) said their customers were not at all concerned.

When asked why they rated the importance of efficiency as they did, those that rated it as important said that customers often ask about efficiency because they hope a fireplace will help them save money on their heating bills. They also said that many customers have a general understanding that gas fireplaces can be more or less efficient. Those that gave a neutral or less important rating for efficiency tended to reiterate that looks were more important than efficiency for their customers.

## ≈ SECTION TWO: FINDINGS ≈

	Number	Percent
Very Concerned (9-10)	1	4%
Somewhat Concerned (7-8)	16	70%
Neutral (5-6)	5	22%
Not Too Concerned (3-4)	0	0%
Not At All Concerned (1-2)	1	4%
Total	23	100%

Table 5 Q1 – Vendor Ratings of Customer Concern about Fireplace Efficiency

## **Promoting Energy Efficiency**

As shown in **Table 6**, 43% of vendors reported they very actively promote high efficiency direct vent gas fireplaces during the sales process and another 26% rated themselves as somewhat active advocates. The remaining 31% of vendors said they did not actively promote energy efficiency. Those who rated themselves as active gave varying reasons for doing so. Some simply said that efficient models are "all we sell," while others said being green was consistent with their business values, and still others said it was in their customers best interests to get "more heat for less money" and to qualify for rebates and tax credits. Those who did not actively push efficiency said that "people don't ask for it" and they tend to promote the brands that are most in demand, whether high efficiency or not.

	Number	Percent
Very Active (9-10)	10	43%
Somewhat Active (7-8)	6	26%
Neutral (5-6)	3	13%
Not Too Active (3-4)	2	9%
Not At All Active (1-2)	2	9%
Total	23	100%

Table 6 Q3 – How Actively Vendors Promote High Efficiency Fireplaces

## **Defining Energy Efficiency**

When vendors were asked how they define "high efficiency" direct vent gas fireplaces for customers, they gave a variety of responses, with some being quite brief and specific and others being more descriptive. [Note: Please see Appendix B for verbatim responses.] The most specific answers had to do with burn rates as indicating efficiency, with 7 of the 23 vendors (30%) saying that burn rates around 80% were efficient, and another 3 vendors citing lower or less specific definitions of burn rates. One vendor said he relied on government ratings of efficiency and 7 vendors (30%) said they relied on manufacturer's ratings which said they "all the models had." Three vendors talked about the amount the space a customer is able to heat with a gallon of fuel, and two vendors gave fairly vague answers, with one saying all the fireplaces "were about the same."

## CHARACTERISTICS AND USE OF DIRECT VENT GAS FIREPLACES

## **Standing Pilot Lights**

As **Table 7** shows, the majority of vendors (61%) said that more than half of the direct vent gas fireplaces they sell have standing pilot lights. Eleven vendors (48%) said 75% or more of their direct vent gas fireplaces have them and another 3 vendors (13%) said 51-75% have them. Nine vendors (39%) said that 50% or less of the fireplaces they sell have standing pilot lights, with one saying all the direct vent gas fireplaces they sell have intermittent pilot ignitions (IPIs). More than one company mentioned that as the new models come in, fewer will have a standing pilot light and more will have IPI capabilities.

	Number	Percent of Vendors
$\frac{1}{4}$ of sales of less	7	30%
$\frac{1}{4}$ to $\frac{1}{2}$ of sales	2	9%
$\frac{1}{2}$ to $\frac{3}{4}$ of sales	3	13%
	11	48%
Total	23	100%

Table 7 Q7 – Percent of Direct Vent Gas Fireplaces Sold with Standing Pilot Lights

As shown in **Table 8**, for 57 top selling fireplace models that could be identified as having standing or intermittent pilot lights, the standing pilot light models had, on average, higher Fireplace Efficiency (FE) ratings than those with IPIs, even though fireplaces with IPIs are the newest technology and are intended to enhance efficiency.<sup>3</sup> The reason for this finding is not entirely clear. It may reflect the

<sup>&</sup>lt;sup>3</sup> The Canadian EnerGuide rating system has standard testing, so consumers can compare different fireplaces makes and models. It provides a "Fireplace Efficiency (FE) rating based on products tested and certified to the Canadian Standards Association (CSA) test standard P.4.1-02." See <a href="http://oee.nrcan.gc.ca/publications/infosource/pub/home/all\_about\_gas\_fireplaces\_chapter3.cfm?attr=4">http://oee.nrcan.gc.ca/publications/infosource/pub/home/all\_about\_gas\_fireplaces\_chapter3.cfm?attr=4</a> for more information.

ability of standing pilot lights to get up to temperature more quickly than those with IPIs. Or, the Canadian test may assume higher annual hours of use, counteracting the stand-by losses of a standing pilot light. Thus this test assumption may need to be revisited. The average price of IPI units was significantly higher than those with standing pilot lights: \$2,597 to \$2,078, likely reflecting the newer technology.

	Number	Mean FE Rating	Number	Average Price
Standing Pilot	35	62%	34	\$2,078
Intermittent Pilot	22	58%	22	\$2.597
Total	57		56	

Table 8	FE Ratings	for Standing	and	IPI

## Use of Direct Vent Gas Fireplaces as Major Heat Sources

Vendors were asked to estimate what proportion of their customers planned to use their fireplaces 20 or more hours a week – that is, as a major source of home heating. As shown in **Table 9**, the large majority of vendors (74%) thought that over half of their customers intended to use their fireplaces as major heat sources, while a minority thought most of their customers would use their fireplaces as backup or supplemental heat or for more decorative reasons. The data suggest that consumers may rely more on these fireplaces as a major source of heat outside of the Portland metropolitan area.

Tabla 0	$O_{2}$ Proportio	n of Ruwors	Dianning to	Liso Eiropia	co as Mai	or Hoat Sourco
I able 9		II OI DUYEIS	rianing to	use rilepia	ce as iviaj	UI REAL SOULCE

Table 9 Q8 – Proportion of Bu	yers Planning to U	se Fireplace as M
	Number	Percent
One-quarter or less	2	9%
One-quarter to one-half	4	17%
One-half to three-quarters	7	30%
Over three-quarters	10	44%
Total	23	100%

## SALES OF DIRECT VENT GAS FIREPLACES

## **Proportion of Fireplace Sales from Direct Vent Gas Fireplaces**

When asked what proportion of all their fireplace sales came from direct vent gas fireplaces, vendor response varied, suggesting that some vendors specialize in these fireplaces while some do not. As shown in **Table 10**, 70% of vendors said these

## ≈ SECTION TWO: FINDINGS ≈

fireplaces made up less than half of their sales, while the other 30% said that direct vent gas fireplaces accounted for over one-half of their sales – with 17% of this group saying the fireplaces accounted for over three-quarters of their sales..

	Number	Percent
25% or less	9	39%
26 - 50%	7	31%
51 - 75%	3	13%
Over 75%	4	17%
Total	23	100%

 Table 10
 Q10 – Percent of Fireplace Sales from Direct Vent Gas Fireplaces

## 2008-2009 Heating Season Sales

The number of direct vent gas fireplaces sold varied widely among vendors – from 7 units to 2,500 units. The median number of units sold was 100 (one-half of vendors sold more than 100 units, one-half sold less). About one-half of vendors (48%) report they sold 50 or fewer units during the last heating season, while 33% sold between 51-250 units, and 19% sold over 250 units (see **Table 11**).

Across the 21 vendors who were able to report their sales figures, 5,777 of these fireplaces were sold, yielding an average of 275 units per vendor. This average is likely on the high side due to our strategy of pursuing the largest vendors and because one vendor sold 2,500 units. If we exclude this vendor, the average falls to 164 units per vendor. Using these two averages and extrapolating the sales out to all 50 vendors, the estimated range of total sales for the past heating season would be 8,200 to 13,750 direct vent gas fireplaces.

Table 11 Q9 – Number of Direct Vent Gas Fireplaces Sold – 2008-2009 Heating Season

	Number	Percent
50 or less	10	48%
51-250	7	33%
Over 250	4	19%
Average across all vendors = $275$ units	21	100%
Average excluding largest vendor = 164 units		
Range of sales across population of 50 vendors: <b>8,200</b> to <b>13,750 units</b>		

## **Top Selling Brands**

When the introductory letter was sent to hearth vendors, they were asked to prepare for a survey question that would ask them for their top five selling direct vent gas fireplace models for the past heating season, along with their specific model numbers and prices. The specific model numbers were important to this study because Energy Trust could then derive the level of efficiency of the fireplaces sold. Only one vendor was not able to provide us with their top model information, although some small shops had fewer than five top models. **Table 12** shows the percent of top brands across all top models given. Two brands – Heat N Glow and Quadra-Fire clearly lead the list of brands sold, with a wide array of other brands constituting much smaller proportions.

Brand	Number	Percent of
		<b>Models</b> Given
Heat N Glo	20	20%
Quadra-Fire	18	18%
Valor	7	7%
Avalon	6	6%
Jotl	6	6%
Lopi	6	6%
Travis	6	6%
Enviro-Focus	5	5%
Kozy	5	5%
Lexington Forge	4	4%
Regency	4	4%
Majestic	3	3%
Winthrop	3	3%
Heatilator	1	1%
Napoleon	1	1%
Montego	1	1%
Mendota	1	1%
Town & Country	1	1%
Total # of Models =	102	100%

Table 12 Brands of Top Five Selling Direct Vent Gas Fireplaces

As **Table 13** on the next page shows, the top five brands tended to represent a large proportion of sales for the vendors – **on average 72% of direct gas vent fireplaces sold.** 

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	Number	Percent
Less than <sup>1</sup> / <sub>4</sub> of sales	1	5%
$\frac{1}{4}$ to $\frac{1}{2}$ of sales	4	18%
$\frac{1}{2}$ to $\frac{3}{4}$ of sales	4	18%
Over <sup>3</sup> / <sub>4</sub> of sales	13	59%
Total	22	100%
Average percent of sales = 72% Median percent of sales = 80%		

Table 13 Proportion of Sales that Top 5 Brands Represent

## Efficiency and Price of Top Selling Brands

When Energy Trust staff checked top selling model numbers for their fireplace efficiency ratings, they found only 57 of the 102 models listed (56%) could be verified.<sup>4</sup> Since the models that could be rated represented most brands, we are using these 57 ratings to represent all top models sold, which in turn represent a large majority of direct vent gas fireplaces sold (as shown in **Table 14**). On average, the top selling fireplaces have a 61% energy efficiency rating. As shown in **Figure 2**, 14% of these top sellers were rated at less than 55%; 28% between 56-59%; 30% between 60%-65%; 19% between 66-70%; and 9% were rated above 70%.





<sup>&</sup>lt;sup>4</sup> These are the same 57 models where the type of pilot light was available. The primary reason for the low rate of matching was that many models are not sold in Canada where fireplace efficiency ratings are mandatory.

Vendors were able to provide prices for most of their top selling models. The prices of across all top models varied from \$1,200 to \$4,300, with the average price being \$2,118. **Table 14** shows the average price, by efficiency category, for the efficiency rated models where price was available. The prices vary considerably and don't, as is often the case, rise with efficiency level. Based on input from an industry expert, one reason for the pattern or prices may be that as efficiency increases, the flame gets bluer, and thus less aesthetically desirable. With 70% of vendors indicating aesthetics as a key factor in fireplace purchases, the highest average prices may reflect those models that have the highest efficiency and which, at the same time, maintain the red flames (FEs of 66-70%). The lower prices for the highest efficiency level may reflect blue flames and thus lower aesthetic appeal.

FE Rating	Number	<b>Average Price</b>
< 55%	8	\$2,334
55-59%	15	\$1,820
60-65%	16	\$2,434
66-70%	11	\$2,676
Over 70%	6	\$2,193
Total	56	

Table 14 Mean Price for Models at Various Efficiency Levels

## PRICE OF INSTALLING AND VENTING DIRECT VENT FIREPLACES

Vendors were asked the average cost of venting and installing three types of direct vent fireplaces: zero clearance, fireplace inserts, and free standing fireplaces. Their responses are shown in **Table 15**. Overall, the average cost of these options did not vary greatly (\$897, \$894, and \$954, respectively), but there is some difference in the distribution across the price categories. The average price of zero clearance fireplaces is \$897, with 41% of vendors placing the price between \$500-750, 36% giving a price between \$751-1,000, and 23% giving a price between \$1,001 and \$1,500. The average price of a fireplace insert was very similar to the zero clearance: \$894, with fairly similar proportions for the spread of prices. The free standing styles were a little pricier on average – \$954 – and this is reflected in a larger proportion being in two higher cost ranges (above \$750).

Table 15	Price of Installing	g and Ventir	ng Direct V	ent Fireplace Styles
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Zero Clearance Price	Number	Percent
\$500 - \$750	9	41%
\$751 - \$1000	8	36%
\$1001-\$1500	5	23%
Average cost = \$897		

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Zero Clearance Price	Number	Percent
Fireplace Insert Price		
\$500 - \$750	10	43%
\$751 - \$1000	6	26%
\$1001 - \$1500	7	30%
Average Cost = \$894		
Free Standing Fireplace Price		
\$500 - \$750	5	22%
\$751 - \$1000	12	52%
\$1001 - \$1500	6	26%
Average Cost = \$954		

## PELLET STOVES SALES

Because of Energy Trust's interest in renewable energy, a question about the pellet stove market was asked in this survey. As **Table 16** shows, 43% of vendors sold small numbers of pellet stoves (10 or less), while 31% sold between 11 and 40 stoves, 22% sold between 41-100 stoves, and one vendor reported selling 1,000 stoves. The average number of stoves sold was 70; once again, the median is much lower -15 stoves. As with estimating the direct vent fireplace market, the average of 70 stoves is likely high due to the one very large source of sales.

If we exclude the company selling 1,000 stoves, a low-end average would be 28 stoves per vendor, while a high-end average would be 70. Extrapolating these averages to all 50 vendors, the estimated annual market, based on the 2008-2009 heating season, for pellet stoves is between 1,440 and 3,500 units per year.

	Number	Percent
10 or less	10	43%
11-40	7	31%
41-100	5	22%
101+ (= 1000 sold)	1	4%
Average sold across all vendors = 70	23	
Average excluding largest vendor = 28		
Range of sales times population of 50 vendors:		
1440 to 3,500 units		

Table 16	Number	of Pellet	Stoves	Sold
	Number	OF F CIICL	310763	JUIU

# APPENDIX A: ENERGY TRUST OF OREGON HEARTH VENDOR SURVEY

Hello, my name is \_\_\_\_\_\_ and I'm calling on behalf of the Energy Trust of Oregon. I hope you recently received a letter from the Energy Trust about this research to better understand the market for direct vent gas fireplaces, including zero clearance fireplaces, fireplace inserts, and free standing fireplaces. [If needed, add: The Energy Trust of Oregon is an independent non-profit organization dedicated to helping Oregonians use less energy and invest in renewable energy so they save money and protect the environment.] We are talking with a select group of fireplace vendors throughout Oregon. Energy Trust will use the results of this research to see if they need to expand their direct vent gas fireplace rebate program. My questions will take about 10 minutes and your responses are completely confidential.

- 1. When your customers buy direct vent gas fireplaces, what are the most important factors in their buying decision?
- 2. On a scale of 1-10, with 1 being not at all concerned and 10 being very concerned, how concerned are customers about the energy efficiency of the direct vent gas fireplaces they buy?

 $1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10$ 

- 3. Please tell me why you gave that a(n) (fill in number)?
- 4. Again using a 1-10 scale, with 1 being not at all active and 10 being very active, how actively do you promote high efficiency direct vent gas fireplace models?

 $1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10$ 

- 5. Please tell me why you gave that a(n) (fill in number)?
- 6. If customers ask for a high efficiency direct vent gas fireplace, how do you define "high efficiency" for them? (PROBE: Anything else you tell them about high efficiency?)
- 7. What % of the direct vent fireplaces you sell have standing pilot lights? (on all the time) %

#### APPENDIX A: ENERGY TRUST OF OREGON HEARTH VENDOR SURVEY

- About what percent of your direct vent gas fireplace customers plan to use these fireplaces to heat their homes 20 hours a week or more during the heating season? (If needed: This is our definition of a "major" heat source) %
- 9. And about how many direct vent gas fireplaces did you sell during the 2008-2009 heating season?
- 10. What % of all your fireplace sales came from direct vent gas fireplaces? %
- 11. (If it helps: As mentioned in the letter. . .) Now I'd like to know your 5 best selling direct vent gas fireplace models for the 2008-2009 heating season. Please tell me the brand, specific model number, and price for each of these top five models.
  - 1. Empire
  - 2. FMI
  - 3. Heat 'N' Glow
  - 4. Insbruck
  - 5. Kingsman
  - 6. Lexington Forge
  - 7. Mendota
  - 8. Monesson
  - 9. Napoleon
  - 10. Starfire
  - 11. Tempo
  - 12. Town and Country
  - 13. White Mountain Hearth
  - 14. Other Write in name

	Brand	Model Number	LIST Price
1			
2			
3			
4			
5			

12. What % of total direct vent gas fireplace sales do these top 5 models account for? %

## 13. Please tell me the average cost to **vent and install a direct vent ZERO** CLEARANCE FIREPLACE?

a. Average cost

#### APPENDIX A: ENERGY TRUST OF OREGON HEARTH VENDOR SURVEY

- 14. What about the average cost to **vent and install a direct vent FIREPLACE INSERT**?
  - a. Average cost

#### 15. And the average cost to **vent and install a direct vent FREE STANDING FIREPLACE**?

- a. Average cost
- 16. Energy Trust, as part of its interest in renewable energy, would like to know more about the pellet stove market. Could you please tell me how many pellet stoves you sold during this last (2008-09) heating season?
- 17. Now just a few final questions. How many store locations you have?
- 18. And, finally, how many full time employees does your business have?

#### Thank you. Energy Trust really appreciates your help!

#### Person to Call with Questions: Brien Sipe at ETO 503 459 4069

# APPENDIX B: DEFINITIONS OF HIGH EFFICIENCY

Question 5: If customers ask for a high efficiency direct vent gas fireplace, how do you define "high efficiency" for them? (PROBE: Anything else you tell them about high efficiency?)

- 1. 75-85% AFUE Canadian P4 efficiencies that is a much better rating
- 2. Rated 80-85 IPI range
- 3. Heater rated run at 80% efficiency
- 4. Recommend Quadra-Fire product most are rated at 75-80% burn efficiency
- Careful on how we define it usable room heat or lost in combustion most have 80% - small differences not very meaningful 72 – 80% but last couple of years make the units more efficient – IPI ignition system – customer saves \$6/mo
- 6. Burn rate of 83%
- 7. Usually 80% steady state AFUE and steady state try to compare efficiency that way
- 8. Looking for something that has a P4 rating of AFUE rating at least in the 70%
- 9. Multiple layers of efficiency ratings confusing and mis-leading BTU thermal efficiency (most accurate) Canadian efficiency standard flue temperature and btu Majestic/Manessen brand comes new units up to 72% P4 Regency trust worthy efficiency rating- Turn the fireplace on so I could feel the difference
- 10.% of the burn small 5% are more efficient 9/10 are direct vent
- 11. Based on the emission standards by the government
- 12. We would define by published efficiency by manufacturer talk about to them about how a direct vent air works – after that, primary heat or supplemental heat – helps me size the product and to what they're looking for. Start narrowing down

#### APPENDIX B: DEFINITIONS OF HIGH EFFICIENCY

- 13. All have efficiency ratings –amount of square footage they heat price points look brochure
- 14. Depends on the unit clearly labeled with energy efficiency smaller units are less efficient to run in the space - steer me to a vent less/vent free models – 99% efficient because no flue
- 15. Mfg put ratings on the pamphlets when asking about a specific model or look at the different pamphlets and look at the efficiency rating.
- 16. Point to Travis industries efficiency ratings get same efficiency a much better made product
- 17. Go to highest efficiency unit and go down
- 18. Something that has a low emission high efficiency burn to it maximum BTU for price higher rated efficiency standard good clean direct vent
- 19. To the consumer figure out what they expect out of the appliance heat the room or floor –not interested in the ASE rating how much space will this fireplace heat.
- 20. Gas fireplace is not efficient as a furnace heating the *area* only not a whole house getting more efficiency out of your \$\$ instead of your whole house
- 21. Do a lot more propane discuss what kind of heat getting per gallon of propane 30 hours of burn on a 30K BTU gas stove followed by cost how well insulated is your home goes out the window
- 22. Give me a stove with more energy efficiency
- 23. They are all about the same