Energy Trust Gas Fireplace Measure

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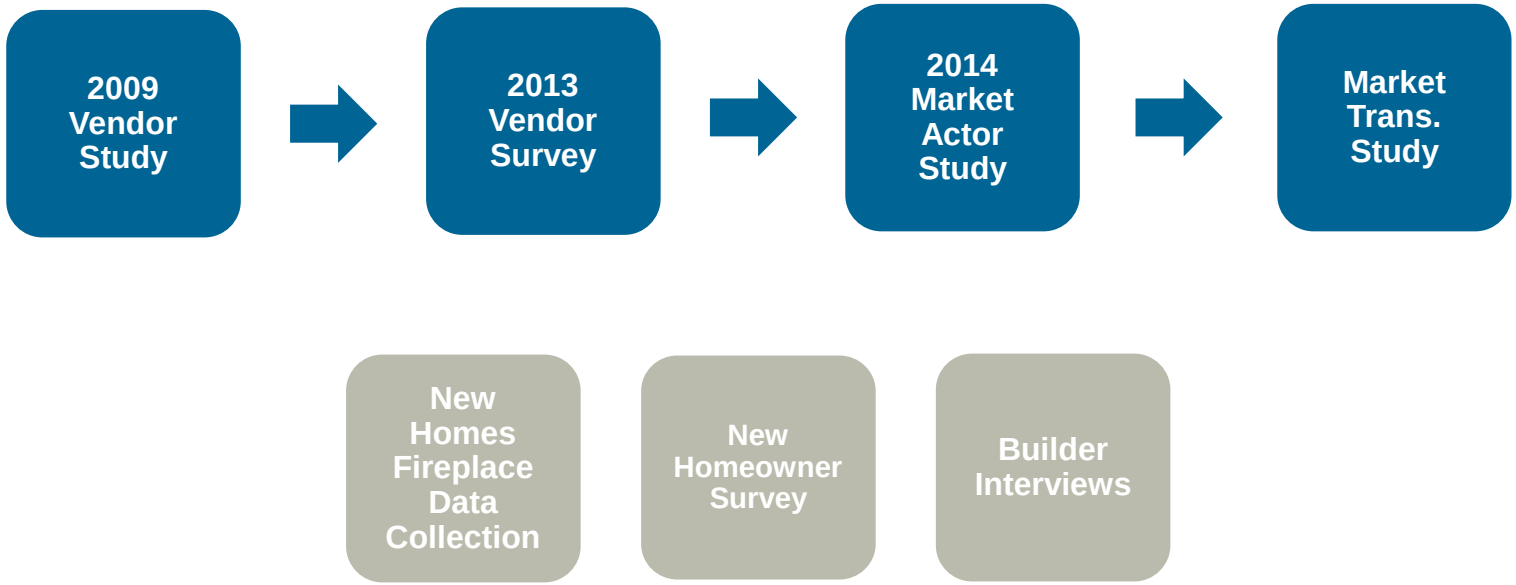
Agenda

- Background about gas fireplaces and Energy Trust's program
- Summary of gas fireplace studies and results

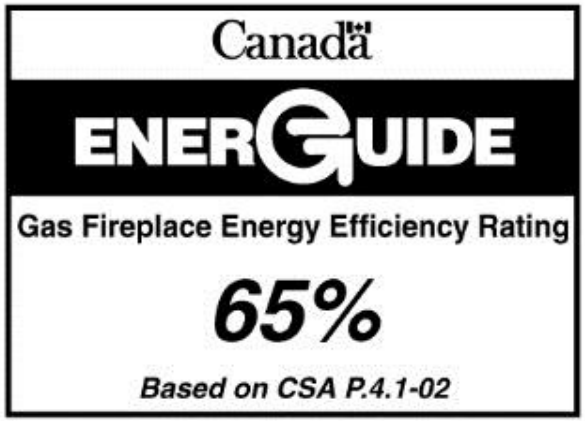


- Impact on programs and program evolution

Terminology

Fireplace Efficiency

Fireplace efficiency, or FE



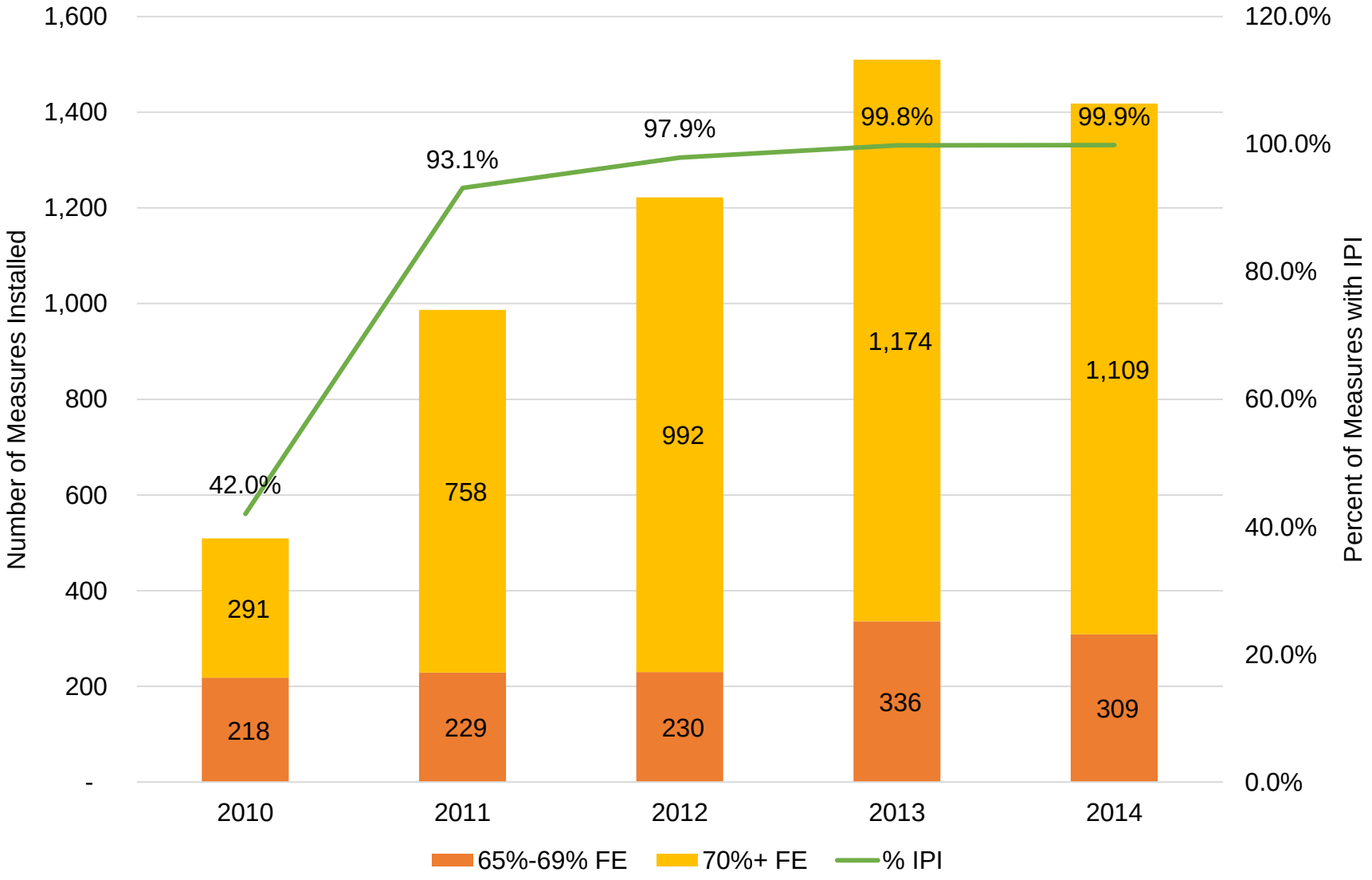
Ignition System

Standing pilot lights

Electronic ignition

- Intermittent pilot ignition (IPI)
- Pilot on-demand
- Others . . .

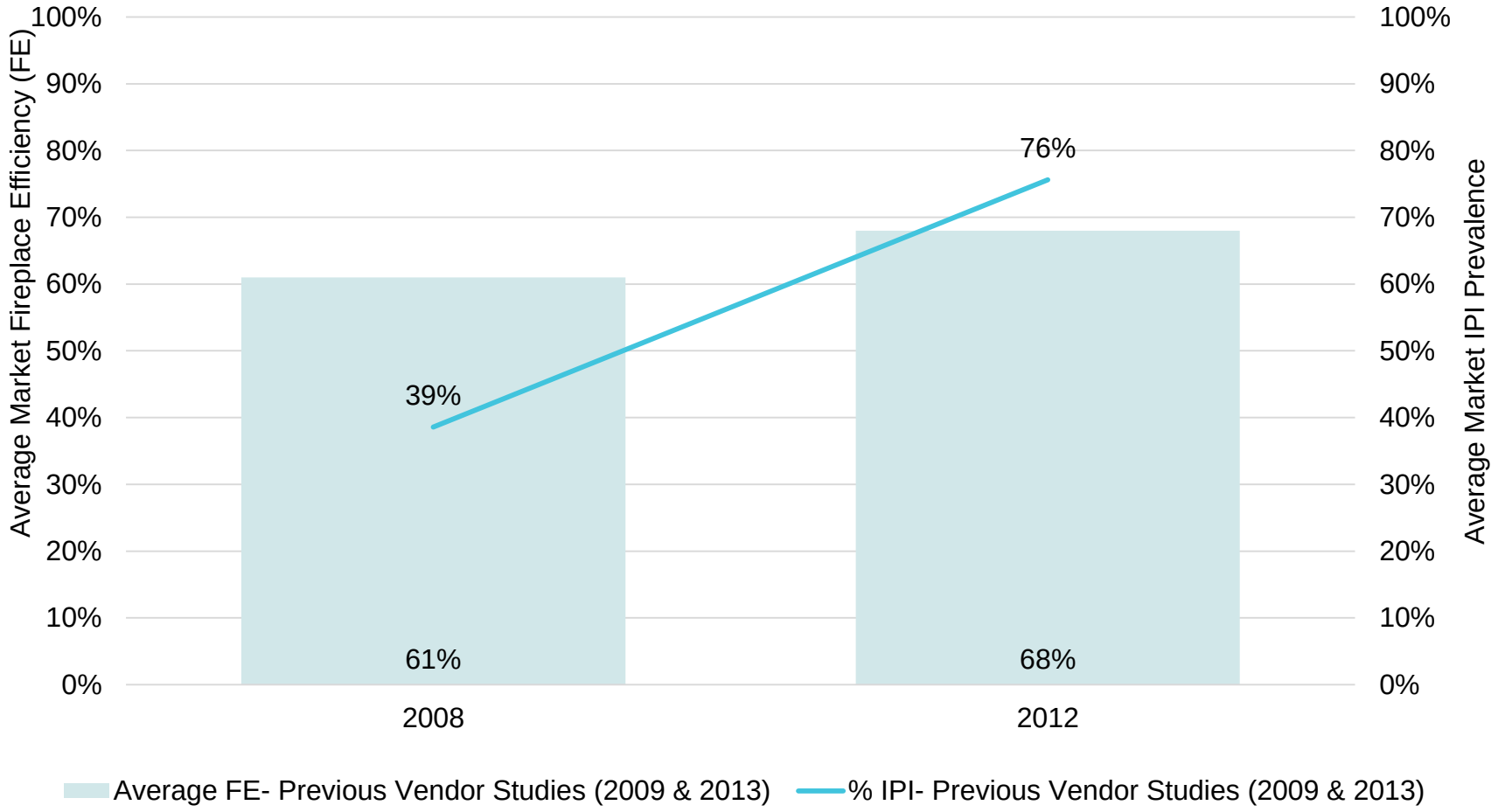
Energy Trust's Gas Fireplace Program



Research with vendors

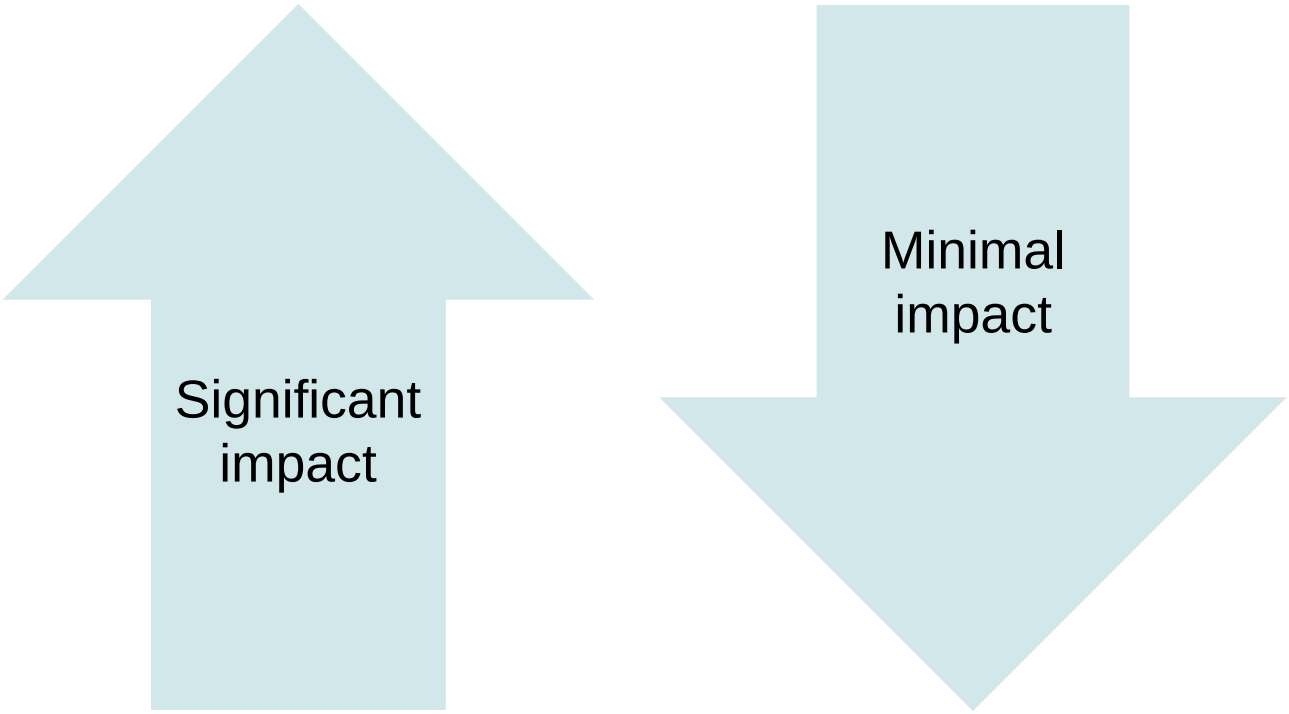
2009 Vendor Study

2013 Vendor Survey



Research with other market actors

2014 Market Actor Study



Market Transformation Study Findings

Study Goals

- Understand the gas fireplace market in the Northwest – who are the players and how are they connected?

- Establish current and future market baseline for fireplace efficiency and prevalence of IPI to potentially claim savings (both in the past and moving forward)

- Understand the influence of Energy Trust's program on the gas fireplace market to date

Desired information

- Proportion of gas fireplace sales with IPI
- Proportion of gas fireplace sales by FE

2013 2014 2015 2020

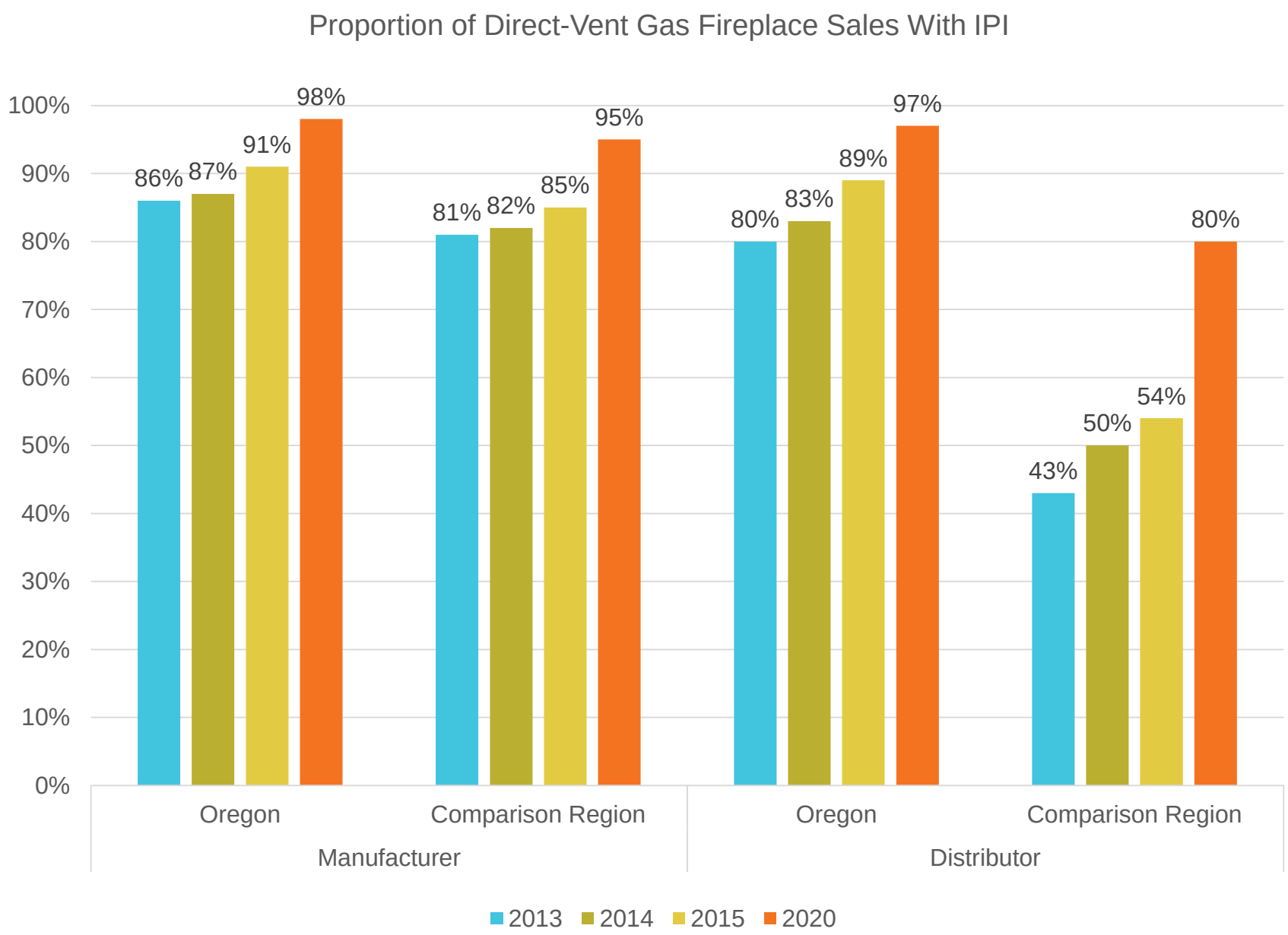
Oregon

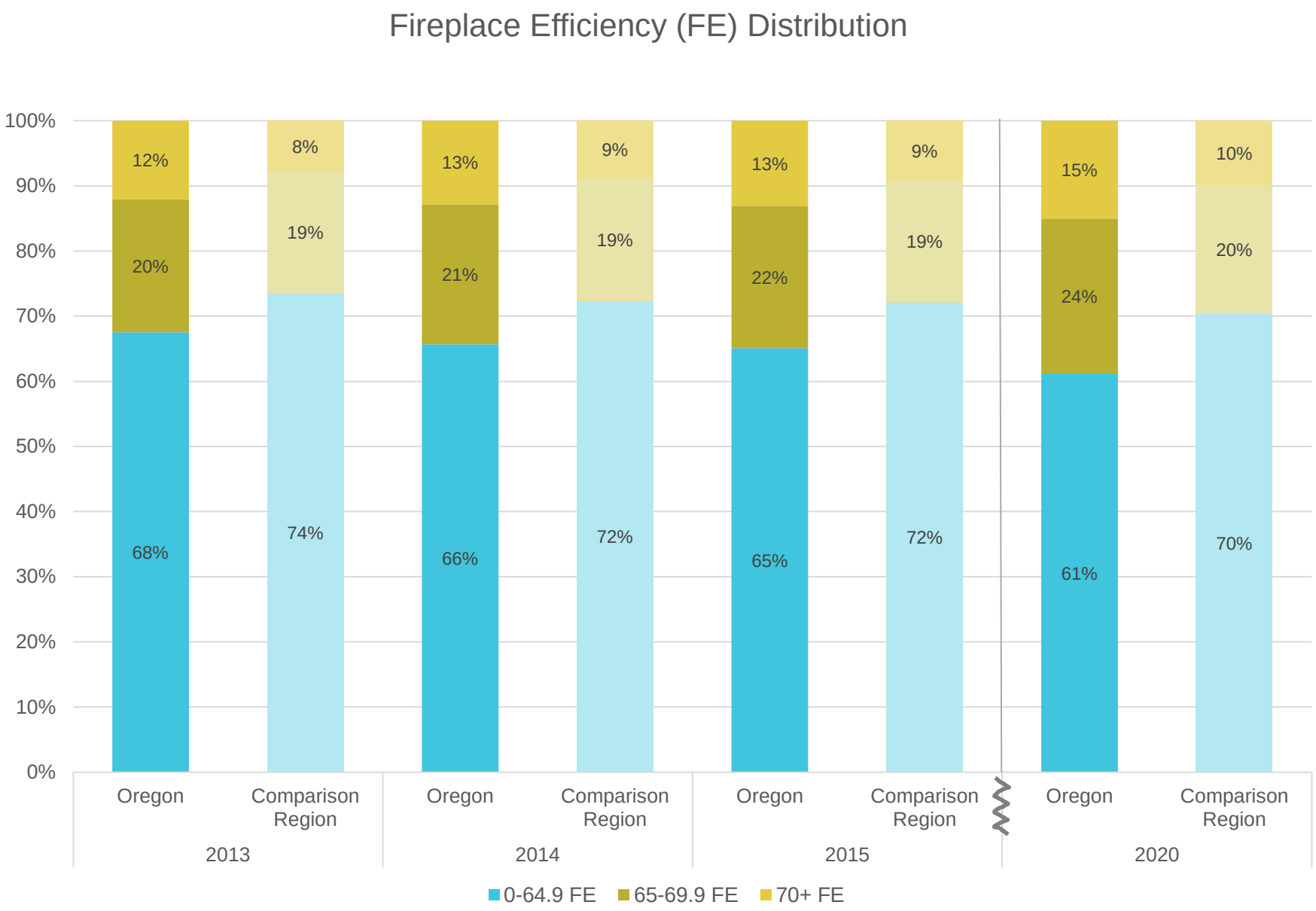
Manufacturers
Distributors

Comparison Region = Northwest Outside of Oregon and Western Washington

Manufacturers
Distributors
Vendors

- Reasons for any changes over time and differences across regions

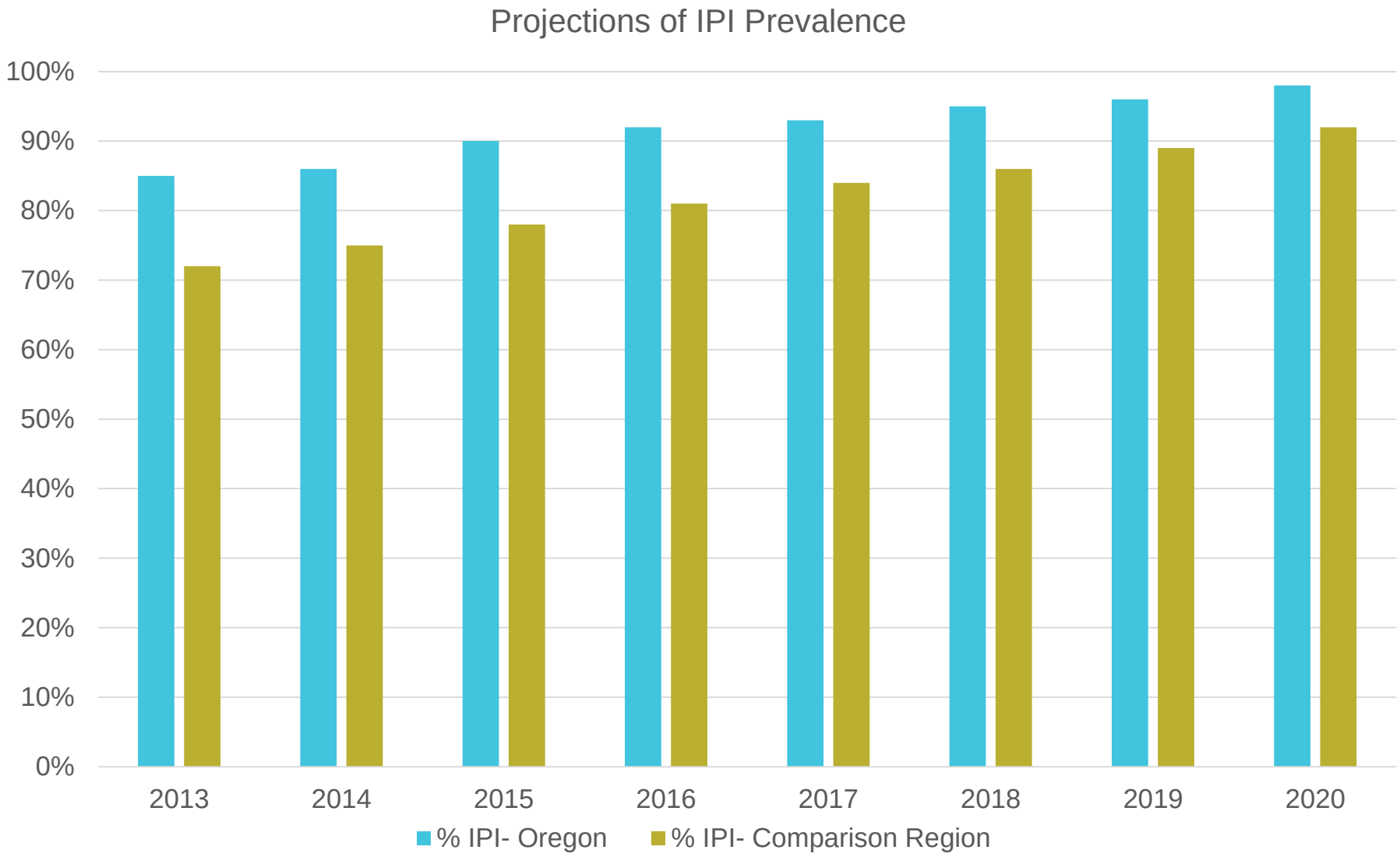

Proportion of Direct-Vent Gas Fireplace Sales With IPI
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
86%
87%
91%
98%
81%
82%
85%
95%
80%
83%
89%
97%
43%
50%
54%
80%
Oregon
Comparison Region
Oregon
Comparison Region
Manufacturer
Distributor
2013
2014
2015
2020


Fireplace Efficiency (FE) Distribution
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
12%
20%
68%
8%
19%
74%
13%
21%
66%
9%
19%
72%
13%
22%
65%
9%
19%
72%
15%
24%
61%
10%
20%
70%
Oregon
Comparison Region
Oregon
Comparison Region
Oregon
Comparison Region
Oregon
Comparison Region
2013
2014
2015
2020
0-64.9 FE
65-69.9 FE
70+ FE

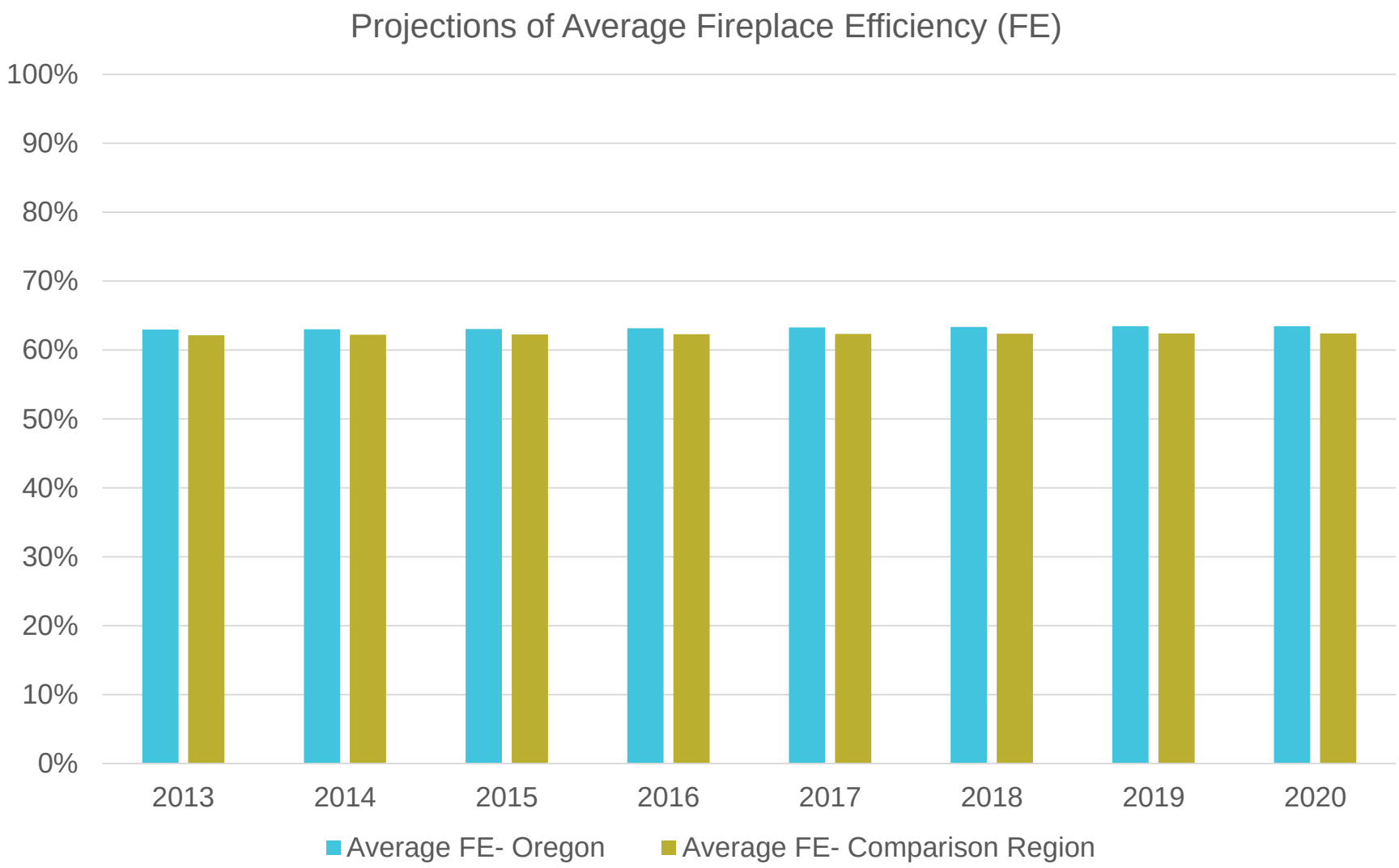
Summary of Results

- High IPI prevalence in Oregon
  - Distributors saw much lower IPI prevalence in the comparison region; manufacturers did not see much of a difference
- Both manufacturers and distributors expect IPI prevalence to increase to close to 100%
- There is a small difference in FE mix between Oregon and the comparison region

Summary - IPI


Projections of IPI Prevalence
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2013
2014
2015
2016
2017
2018
2019
2020
% IPI- Oregon
% IPI- Comparison Region

Summary - Fe


Projections of Average Fireplace Efficiency (FE)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2013
2014
2015
2016
2017
2018
2019
2020
Average FE- Oregon
Average FE- Comparison Region

New Homes Study Findings

New Home Studies

- Gas fireplaces are prevalent in new homes (**87%-93%** of new homes with gas service have them)

- Average FE and IPI prevalence appears to be lower than what we see in the existing homes market
  - Average efficiency is **56.5%**, and **53%** of fireplaces had IPI

- Customers in new homes appear to use their fireplace less than do customers who have purchased a fireplace (**8.2 hours per week**)

Program Impact & Evolution

2016 Program Objectives

- Maintain market-wide momentum on prevalence of electronic ignition
- Continue to drive market through retail channel
- Make inroads into the residential New Construction market
- Transition to market transformation model for electronic ignition

2016 Program Activity

Goals	Program Activities		
	Introduce downstream thermal (FE) incentive	Introduce upstream electronic ignition incentive	Gather additional information
Maintain electronic ignition prevalence			
Continue retailer engagement			
Make inroads into new homes market			
Transition to MT model			

Separate Offers

- Thermal efficiency is not a viable resource in the New Homes market
  - Insufficient hours of use
  - Lower baseload to be displaced

- Electronic ignition savings are cost-effective in both markets
  - Comparatively low prevalence of electronic ignition in new homes
  - New Homes is 61% of the market

2016 Proposed Existing Homes Thermal Efficiency Offer

Tier	Incentive
70%-74% FE	$150
75% > FE	$250

- ✓ Continue customer-facing marketing
- ✓ Cost-effective savings in the Existing Homes Program

2016 Proposed Residential Midstream Electronic Ignition Offer

Measure	Incentive
Electronic Ignition	$30****

- Distributor-facing offer
- Savings are discounted
  - Goal is to “hold the line” on prevalence of electronic ignition in 2016, as incentives are transitioned upstream
  - Lower per unit incentive more effective when aggregated upstream
- Savings assigned to both New Homes & Existing Homes programs

2016: A Transitional Year

- Per-unit limited upstream approach
  - Provides framework to forecast savings
  - Allows time to build new business relationships
  - Opportunity to establish distributor-level baselines, transition to performance-based goals
- Work with NEEA to explore regional upstream effort
- Opportunity to accelerate impact of potential DOE standard

Thank You

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EnergyTrust of Oregon