

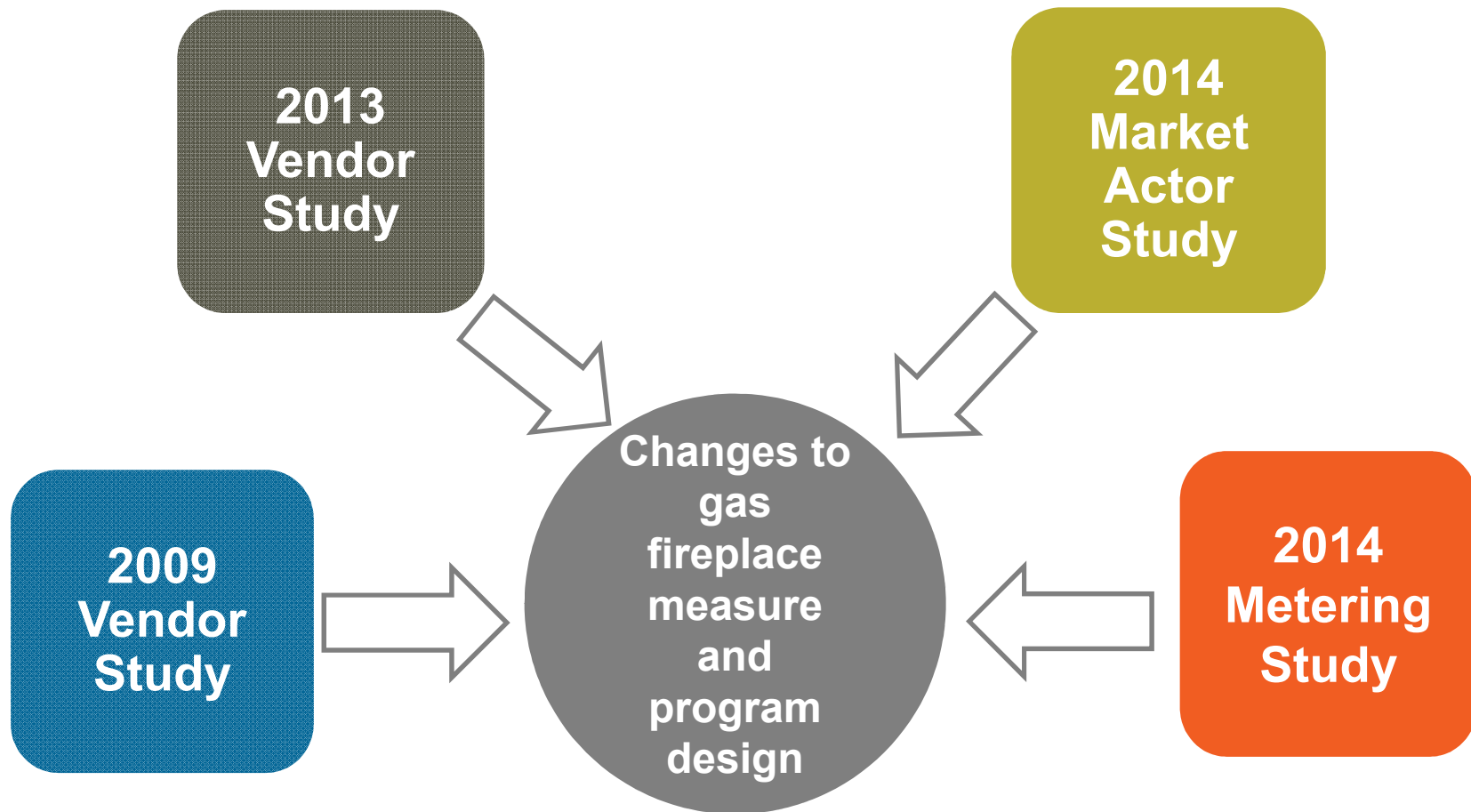
A man with short brown hair is sitting in a red armchair, reading a book. A tabby cat is sitting on his lap. In front of him is a fireplace with a fire burning. The room has a warm, orange-toned wall and a wooden side table.

## Data: Kindling for Fire(places)

Using Data to Inform  
Program Design for Gas  
Fireplaces

Erika Kociolek, Evaluation  
Project Manager

# How data informs programs

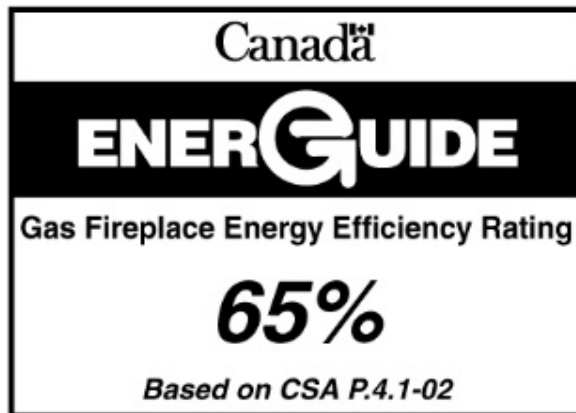


# A bit of terminology & background

## Fireplace Efficiency

## Ignition System

Fireplace efficiency, or FE



Standing pilot lights

Electronic ignition

- Intermittent pilot ignition (IPI)
- Others . . . (it's complicated)

Energy Trust has been offering incentives for high-efficiency gas fireplaces since 2009

**2009  
Vendor  
Study**

**2013  
Vendor  
Study**

**2014  
Market  
Actor  
Study**

**2014  
Metering  
Study**

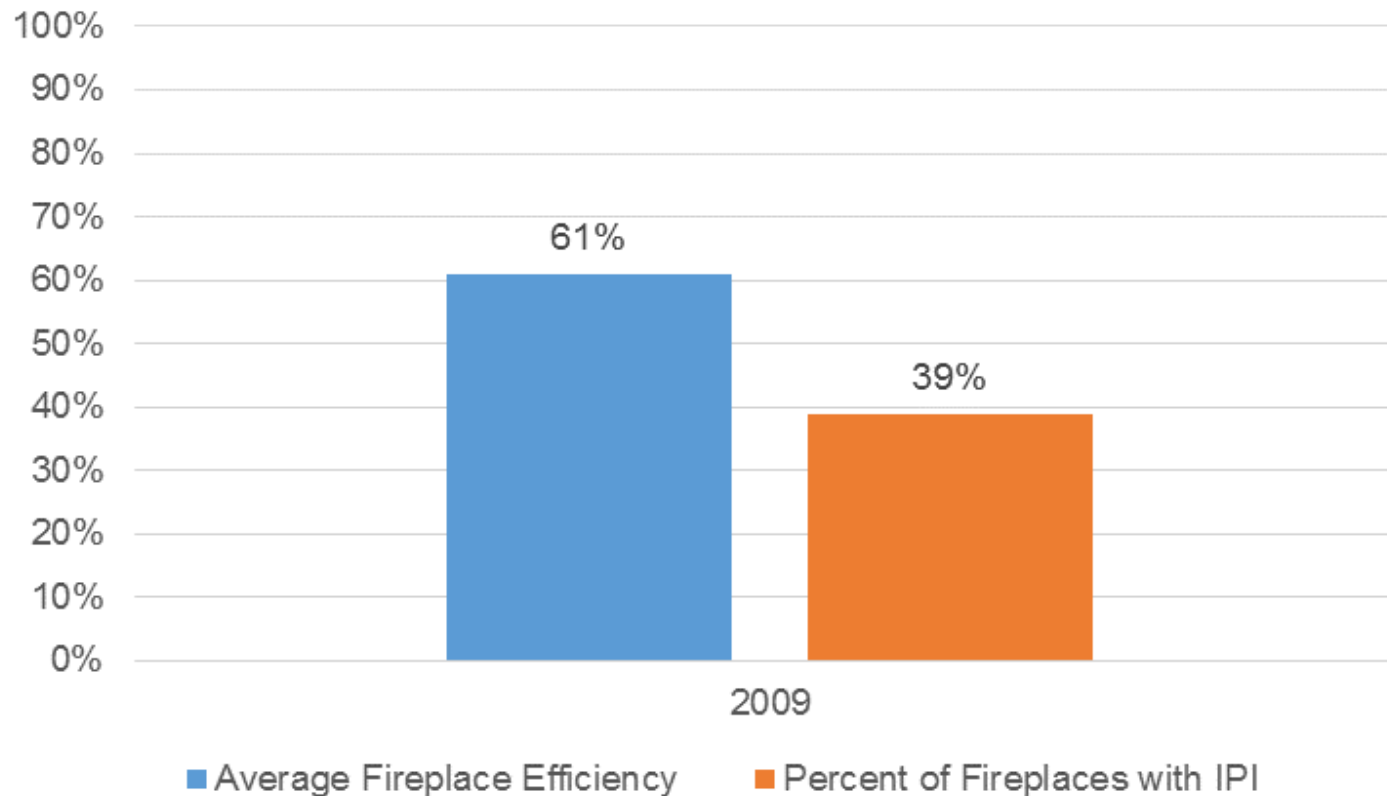


## 2009 Vendor Study

- **Goal:** Estimate key parameters to calculate savings
- **Method:** Survey of 20 Oregon hearth vendors

# Results . . . provided a baseline

2009  
Vendor  
Study



**20** average hours of use per  
week during the heating  
season



# Impacts

2009  
Vendor  
Study

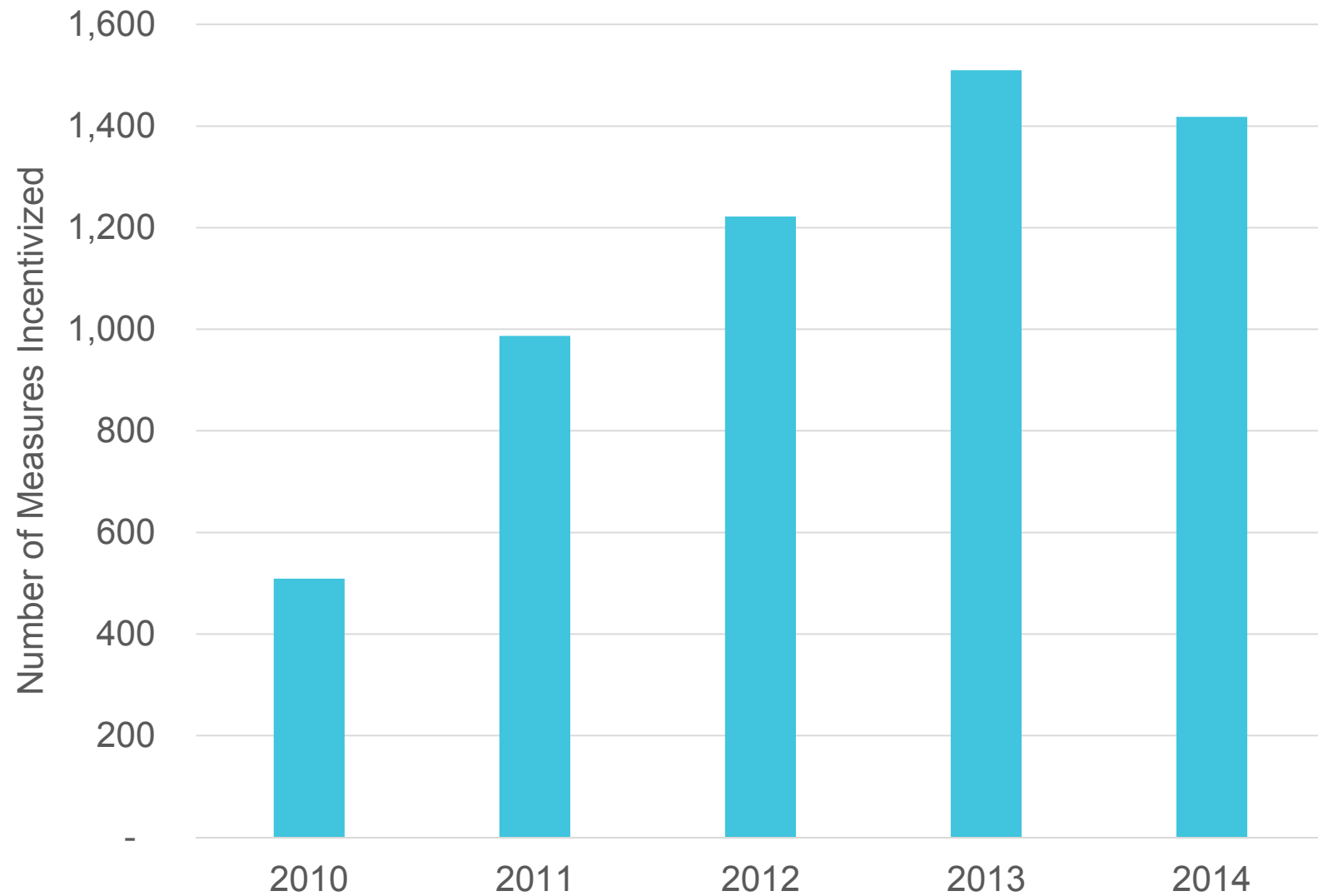
## Measure Assumptions

- Baseline fireplace efficiency (61% FE) and IPI prevalence (39% of fireplaces)
- Hours of use (20 hours per week during the heating season)

## New Offering

- Two-tiered incentive structure:
  - 65-69% FE and 70%+ FE
- Nominal → annual savings of 75-90 therms
- Promotion of IPI through incentives

# Growth in fireplace measure





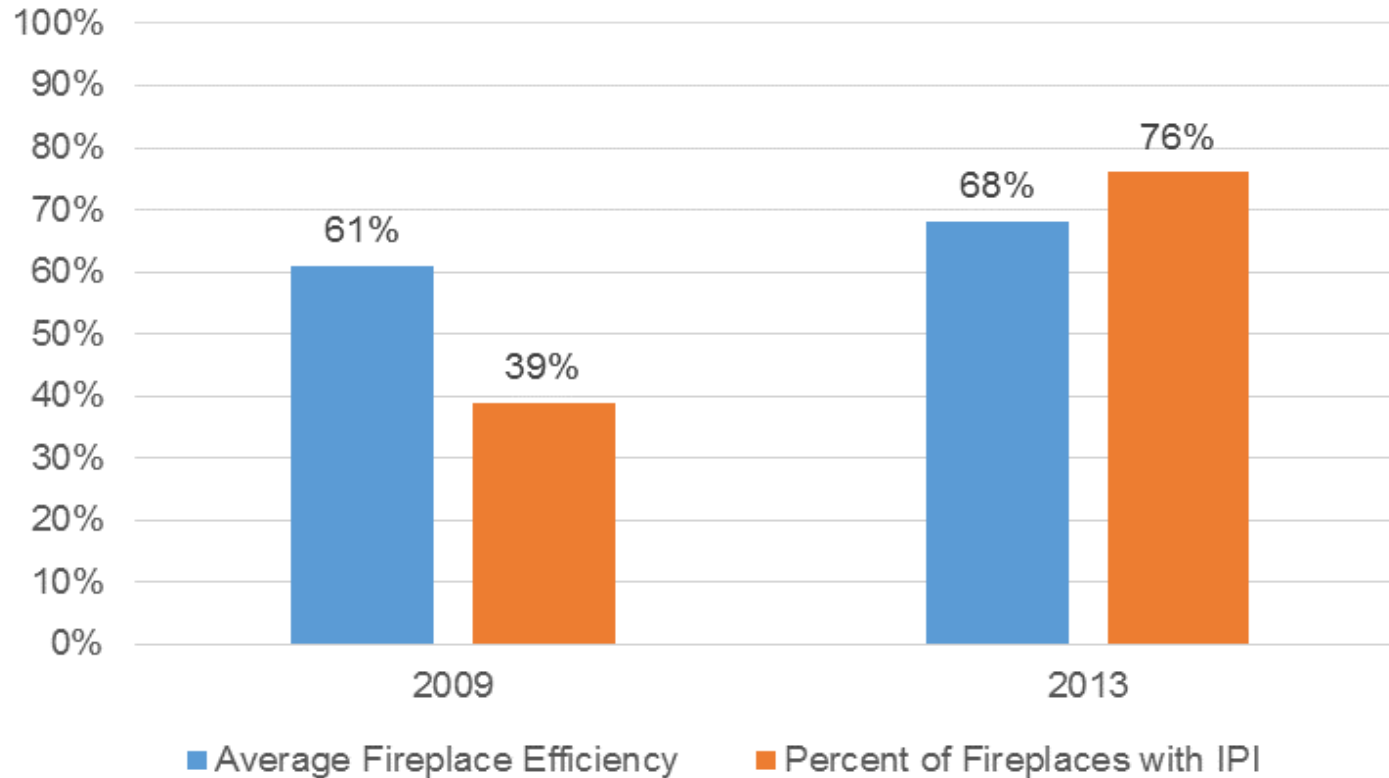


## 2013 Vendor Study

- **Goal:** Assess changes in the hearth market
- **Method:** Survey of 20 Oregon hearth vendors

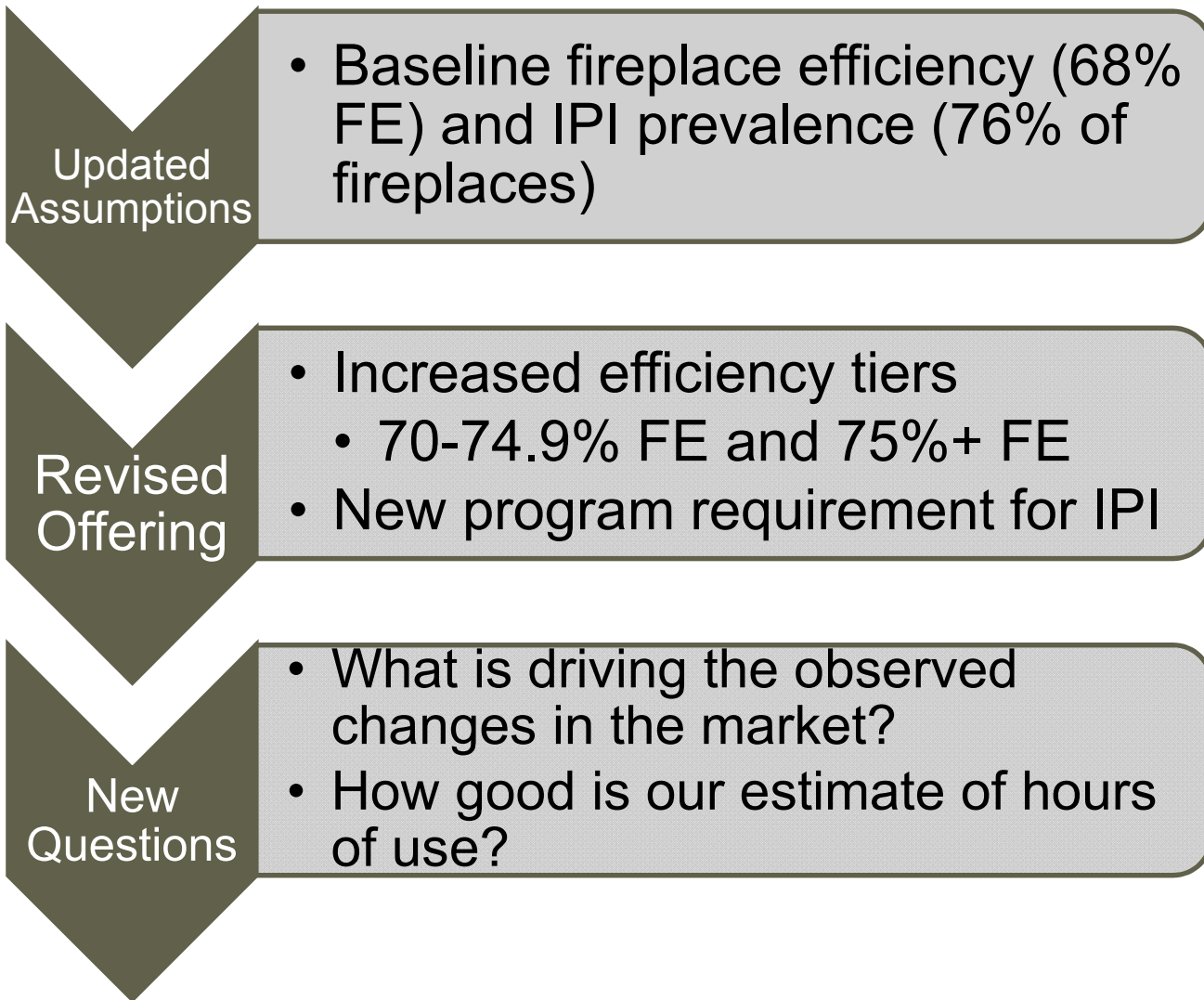
# Results . . . showed market changes

2013  
Vendor  
Study



# Impacts

2013  
Vendor  
Study





## 2014 Market Actor Study

- **Goal:** Assess influence of Energy Trust on hearth market
- **Method:** Survey of three market actors

# Results . . . were mixed

2014  
Market  
Actor  
Study



# Impacts

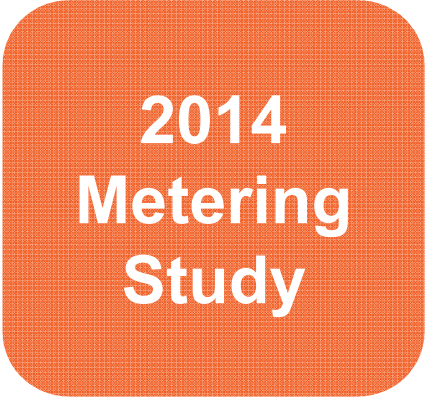
2014  
Market  
Actor  
Study

Mixed  
Messages

- Inconclusive findings and small sample size ( $n = 3$ )

More  
Questions

- Commissioned a larger market study



## 2014 Metering Study

- **Goal:** Verify hours of use of fireplaces
- **Method:** Metering study involving 49 homes



Results . . . were similar to estimates

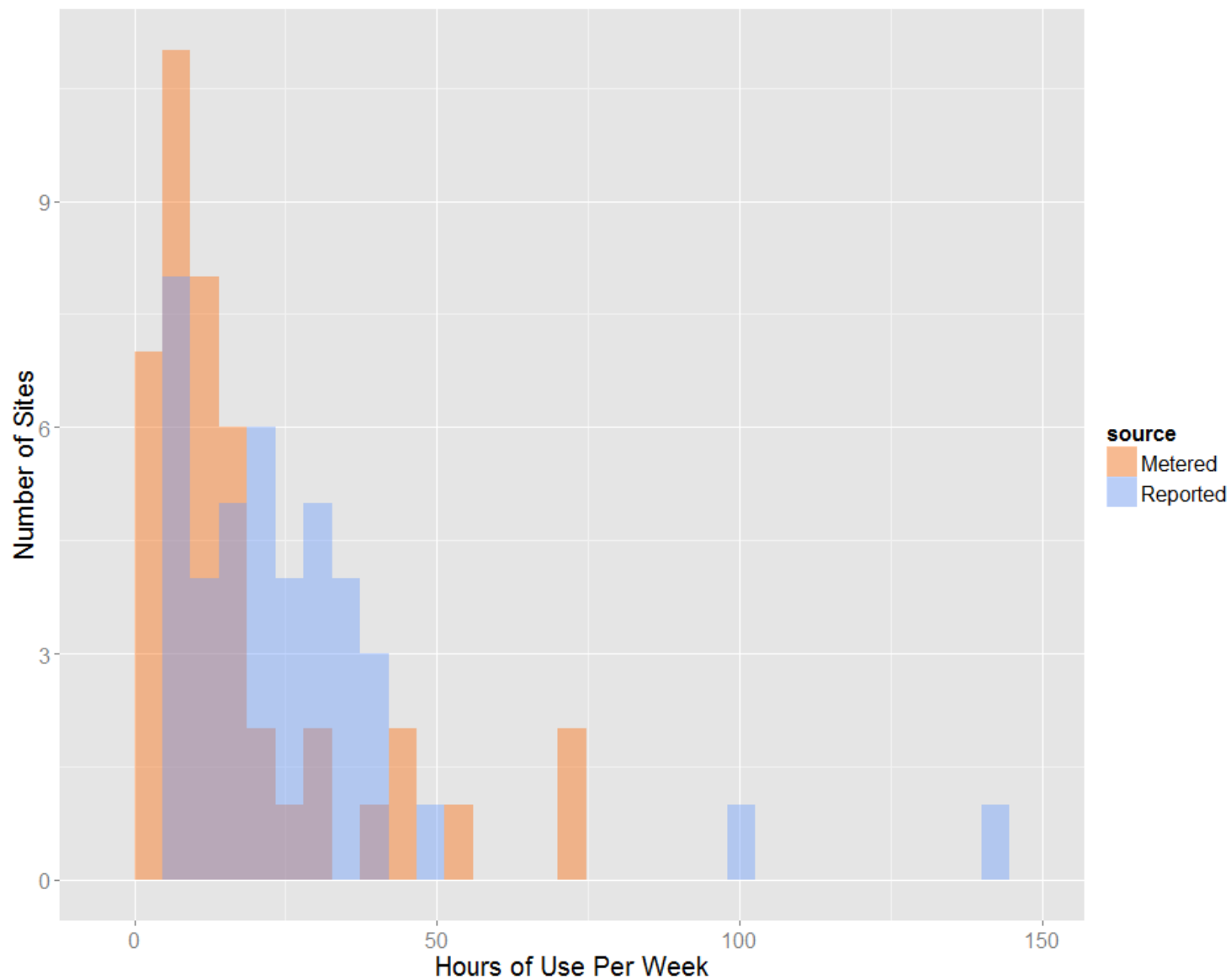
2014  
Metering  
Study

26

average **reported** fireplace  
use per week during  
heating season (in hours)

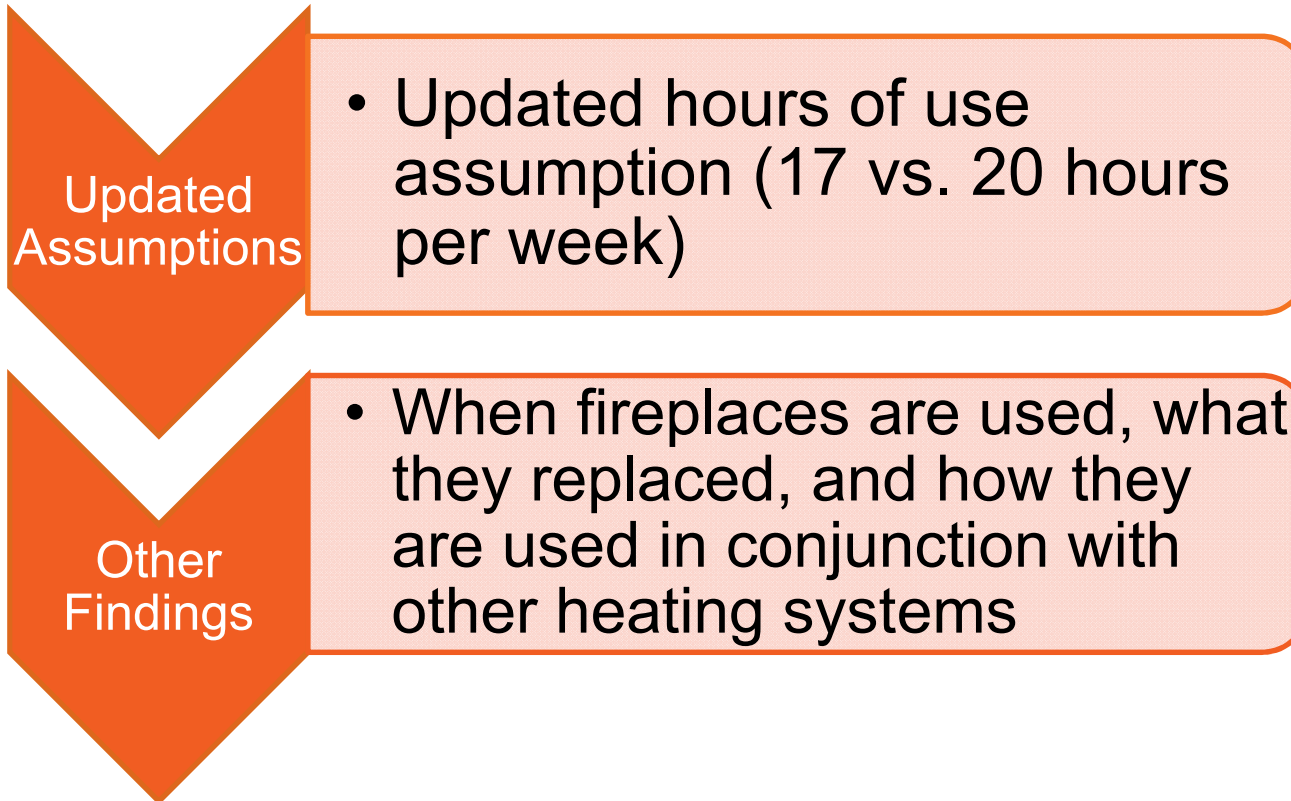
17

average **metered** fireplace  
use per week during  
heating season (in hours)



# Impacts

2014  
Metering  
Study



# How data informs programs

**2009  
Vendor  
Study**

**2013  
Vendor  
Study**

**2014  
Market  
Actor  
Study**

**2014  
Metering  
Study**

Savings

Baselines

Program Requirements

Incentive Levels

Program Impact on Market

# Future Fireplace Work

- Recently completed market transformation study



- Market tracking
- DOE rulemaking
  - If this takes effect (in 2021), what will the standard cover?
- Fireplaces in new homes
  - How often are they installed in new homes, how often do residents use them, what types of fireplaces are installed in new homes, what are builders looking for in fireplaces, and where do builders purchase fireplaces?

# Kudos to Co-Authors

Phil Degens, Energy Trust

Adam Shick, Energy Trust

Bob Davis, Ecotope

Linda Dethman, Research Into Action







# Thank You

Erika Kociolek

Evaluation Project Manager

[erika.kociolek@energytrust.org](mailto:erika.kociolek@energytrust.org)





Additional Slides

