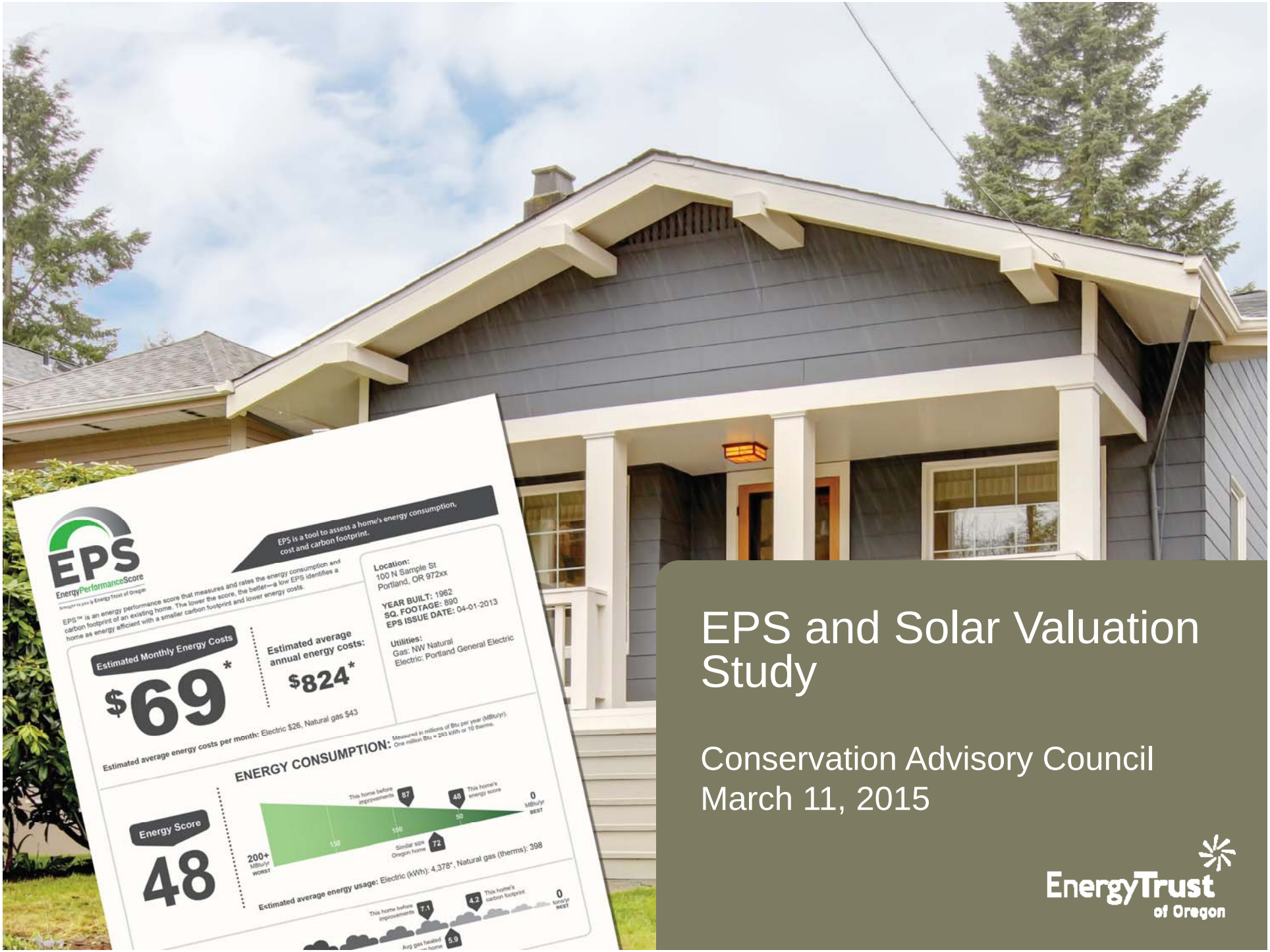


EPS and Solar Valuation Study

Conservation Advisory Council
March 11, 2015

EnergyTrust of Oregon

Background and Purpose

Contractor: Watkins & Associates

Study period: February – December 2014
(program homes sold from 2009 through 2013)

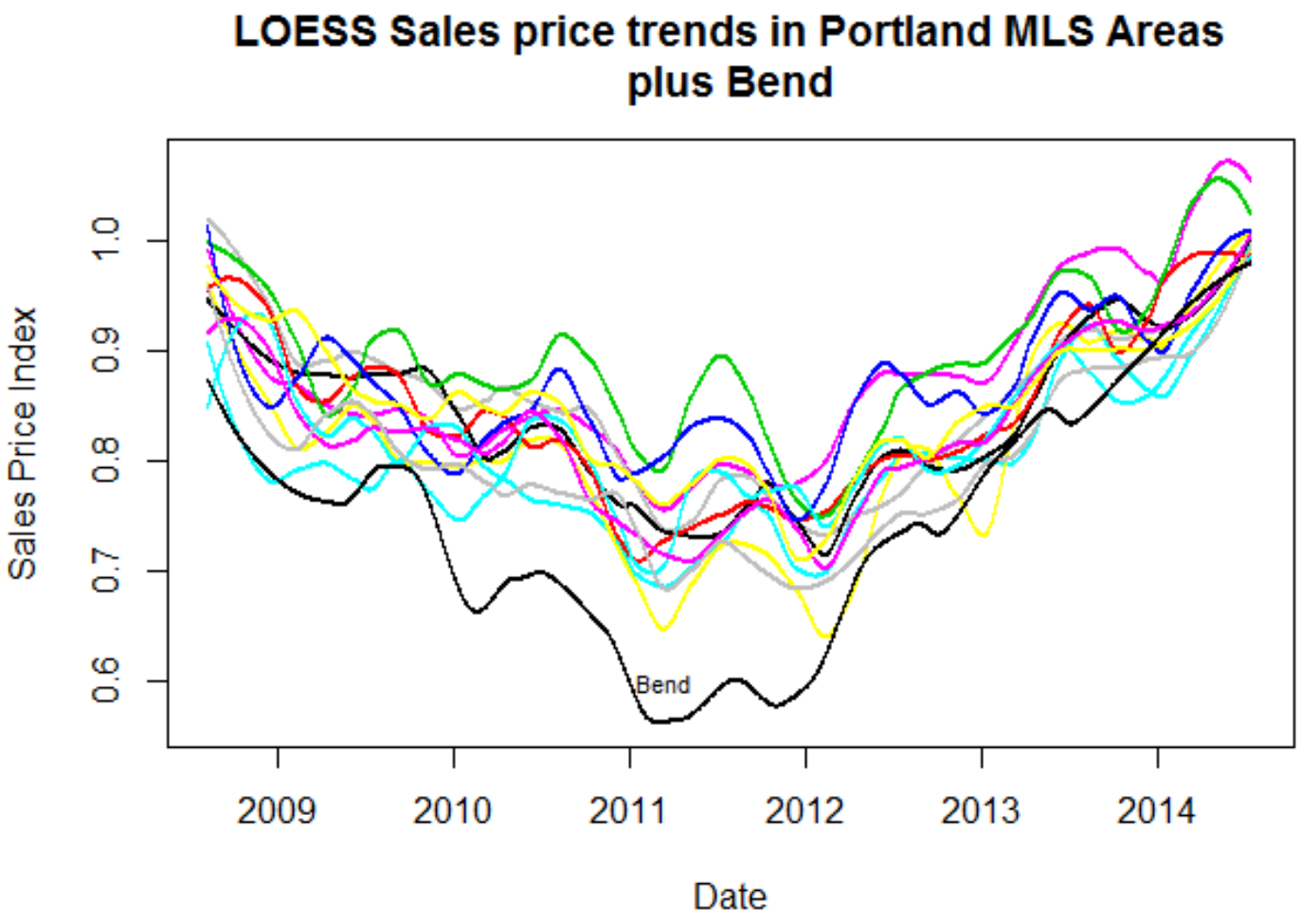
Extension of a similar study completed in 2011

- Building on previous valuation of solar PV systems
- Interest in valuation of energy efficiency measures
- Decided to start with valuation of EPS since it is easily defined
  - Due to challenges looking at just EPS, we also looked at the valuation of green certifications for new homes
- Methodology reviewed and approved by a panel of appraisal professionals from around the country

Methodology

- Energy Trust provided data from FastTrack matched with property sales data from MetroScan
- Use matched sales comparison to estimate the contributory value of PV/EPS
  - Identify comparable properties
  - Make adjustments for size, number of beds and baths, and date of sale
  - Difference in sale price is the premium for PV or EPS

Correcting for time of sale difference



Solar PV

Out of 70 properties that transferred, only 14 properties could be used

- No open market sale, incorrect info, no comparables, multiple green features

Estimated price premium of $13,694 (3.6%)

- 2011 report: $9.8-12.8K (2.8-3.5%, based on 23 properties)
- 2015 LBNL report: $15K (3.9%)

These results likely not significant due to sample size

EPS

Similar issues as PV: out of 716 properties transferred, only 83 were included (all new homes)

- No open market sale, incorrect information, no mention of EPS in listing
- All had green certification (Energy Star or Earth Advantage)
- Had to compare certified homes with and without EPS

EPS – Portland homes

	Estimated premium	Percent of avg. sale price
Energy Star certification (w EPS) compared to homes w/o	$8,788	2.2%*
Earth Advantage certification (w EPS) compared to home w/o	$9,677	3.3%**
Energy Star or Earth Advantage w EPS	$9,223	3.1%**
Energy Star or Earth Advantage w/o EPS	$11,471	4.1%*

* $p<0.05$; ** $p<0.01$

EPS – Bend homes

- 28 properties
- Time effects for Bend were large and obscured any premium for certifications or EPS
- Average estimated premium not significant
- Can’t say anything about the value of EPS in this market at this point

Conclusions & Recommendations

- Work with builders and realtors to get EPS included in all MLS listings (new and existing homes)

AMENITIES SUPPLEMENT

Approximate Distance From:

Public Rail Stop:	IN1/2MI	**Waterfront:**	**Shopping:**	IN1/2MI	**Additional Rooms:** /
Bus Stop:	IN1/2MI	**Ocean Beach:**	**Public Park:**	IN1/4MI	/
School Bus Stop:		**Beach Access:**	**Walk Score:**	74	/
Bike Path:		**Multi Use Path:**	**Dir. Home:**	S	

Neighborhood Features: Community Park

Home Warranty - Company: **Price:**

Easement Information:

Home Energy Performance Rating - Type: EPS **Score:** 89 **Date:** 2013-05-29

- Follow up with more analysis of the value of EPS and Solar in a few years when more properties have sold

Next steps

- Premium for solar appears to be more than the out of pocket cost for the system
  - Similar studies from other regions have found the same thing
- Have asked Watkins & Assoc. to make sure the certification premium isn't due to one or two builders
- Energy Trust should continue and increase efforts to have EPS included in sale listings
- Can repeat the study in a few years when we have more data available; in the meantime, we will monitor other similar studies of solar or energy efficiency value