Energy Trust of Oregon

Enhancements to New Construction Program

Conservation Advisory Council
August 13th, 2008

Energy Trust of Oregon, Inc.

Program Enhancements

- Ultimate program goal
  - Electric savings (kWh)
  - Gas savings (therms)
- Barriers
  - New residential building code effective July 1, 2008
  - New incremental savings much harder for builders to achieve
- Opportunities
  - Energy Performance Score (EPS)
  - No savings left behind

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ENERGY PERFORMANCE SCORE

How does your home compare when it comes energy efficiency and the environment?

EPS

Energy Rating

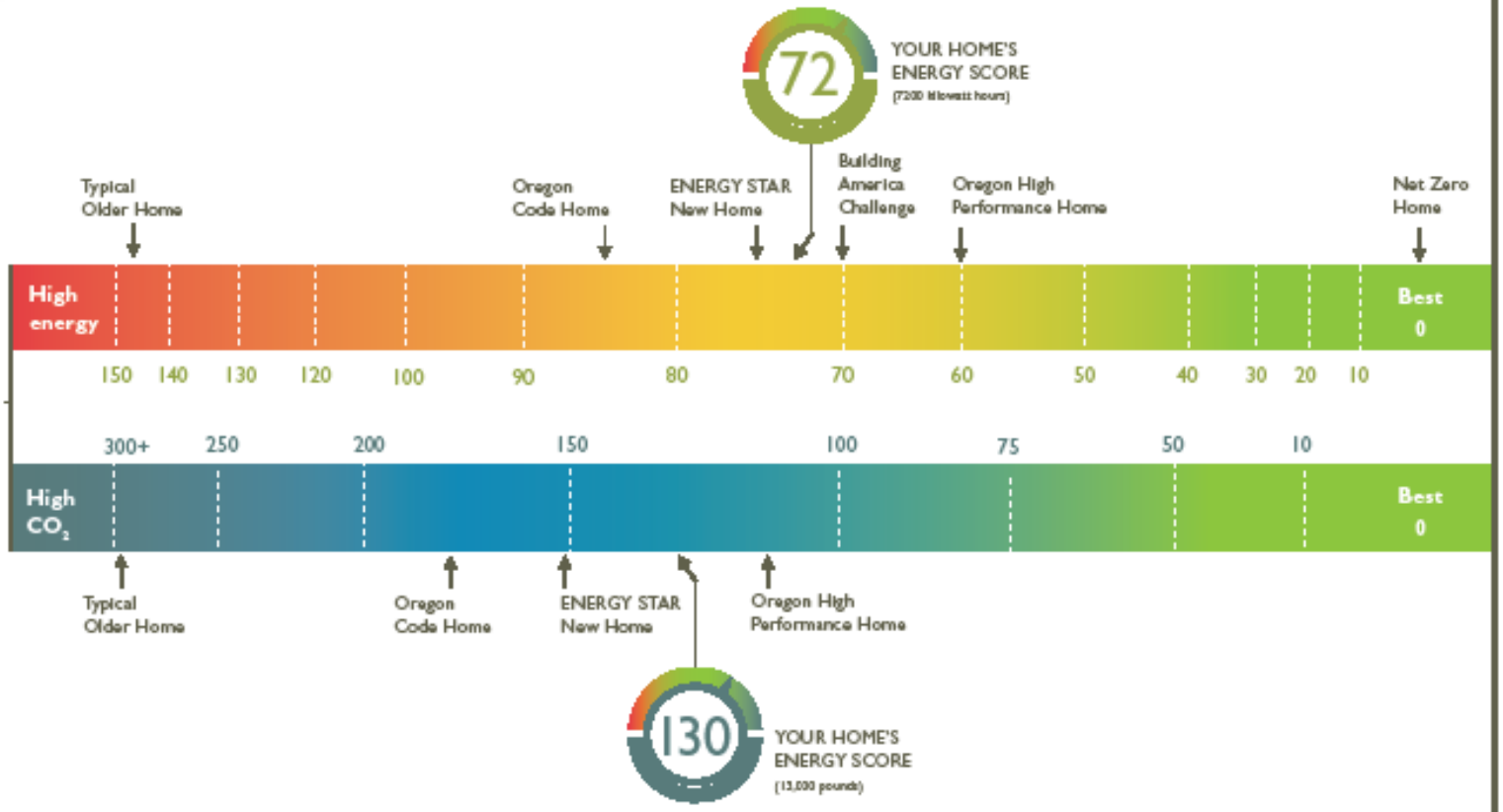
SCORE

Your energy score reflects how efficiently your home uses electricity, natural gas and/or oil. The lower your score the less energy your home uses and the lower more manageable your energy costs will be.

Carbon Footprint

SCORE

Your carbon score reflects the carbon dioxide "footprint" associated with your home's energy use. Carbon dioxide is a major contributor to global warming. The lower your score the kinder your home is to the environment.



Visit www.energytrust.org/EPS for tips to maximize savings.

NORTHWEST

earth advantage

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Certification #	Address:	Estimated annual energy usage:	Estimated average monthly energy costs*:
000604	00000 SW Palatine St. Portland, OR 97292	Electric (kWh) 7728 Natural gas (Therms) 237	$140 *Actual energy costs may vary
Issue date: 06-21-2008	Type: Single family	Conditioned floor area (sq. ft.): 3,312	

Rated by Earth Advantage, Inc. on June 9, 2008 by Glenn Waer
16280 SW Upper Boones Ferry Rd. Portland, OR 97224

Program Enhancements

- Current program only rewards one level of performance: ENERGY STAR+
- Opportunities to ensure no savings left behind:
  - Above code but below ENERGY STAR (insulation, tankless, 95% furnace, etc.)*
  - Earth Advantage Silver*+
  - OR High Performance Home+
  - Federal tax credit*
  - U.S. DOE Builders Challenge*
  - LEED for Homes*

+ Builder Option Package (BOP)

* REMRate (modeling tool)

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Program Enhancements

- Builder Option Package (BOP)
  - Prescriptive checklist
  - Technical compliance options (TCOs)
  - UA (heat loss) calculator
- REMRate (the modeling tool)
  - Nationally used for E∗, LEED, federal tax credit, DOE's Builders Challenge

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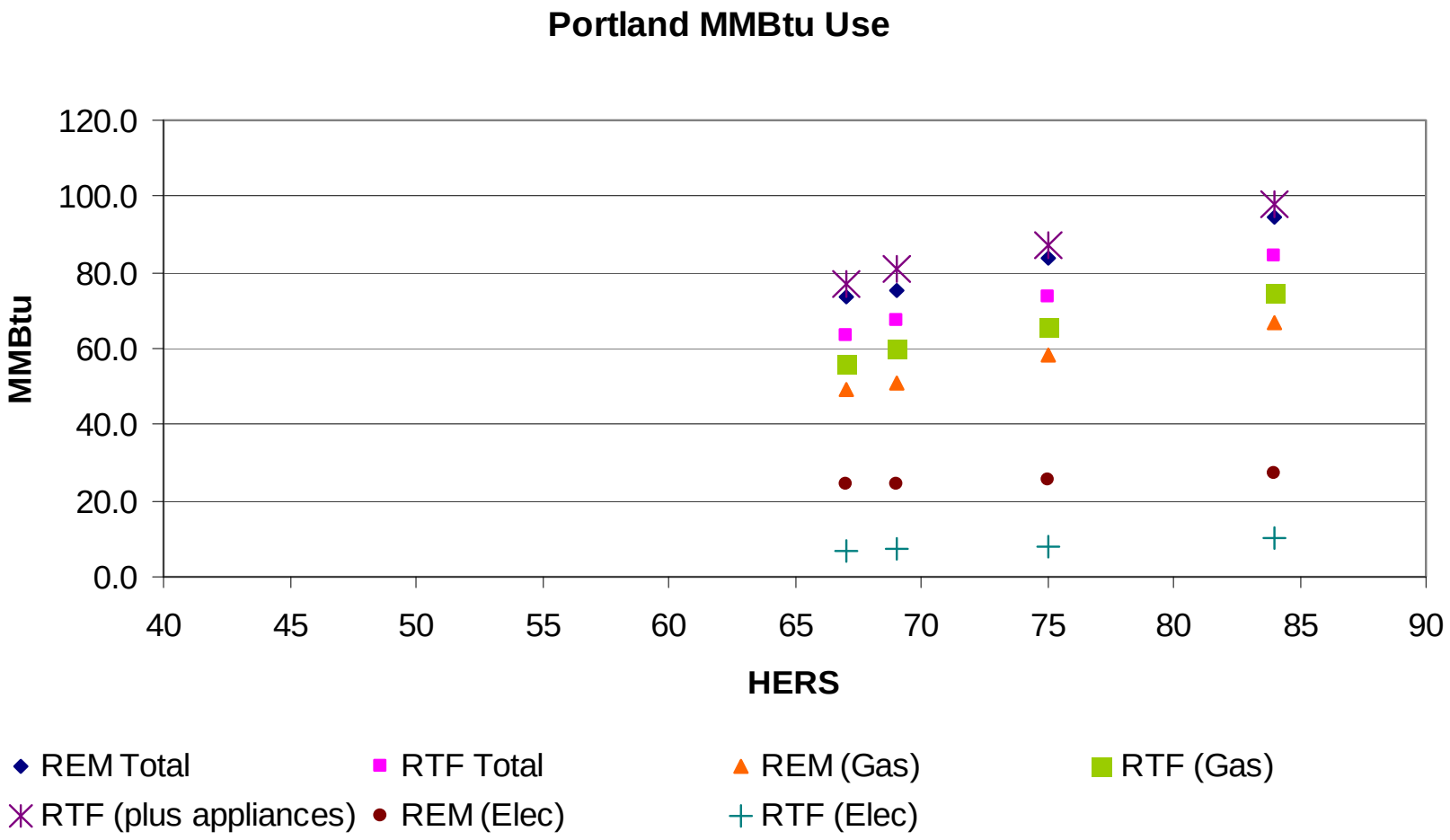
Program Enhancements

- REMRate compared to Regional Technical Forum (RTF) calculator looking at both electric & gas use



Program Enhancements

- Program changes
  - No stand-alones (potential for gaming)
  - Model each home (ETO will subsidize cost of modeling)
  - Count actual savings calculated by REMRate- not just deemed savings
  - Pay for savings - $50 per index point plus bonus at milestones
  - Deliver EPS with appropriate labels (E*, EA, etc.)

kWh					668				754				741					
Therms					87				146				229					
84 Code 90 AFUE	82	80	78 Code Shell + 90AFUE +75% CFL	76	75 ENERGY STAR	74 Code + 90 AFUE +Tankless + 75% CFL	72	70	69 ENERGY STAR + Ducts Inside	68 ENERGY STAR + Tankless	67 Hi-Perf Home Shell	66	64 Hi-Perf Home Shell + Tax Reqm'ts	62 ENERGY STAR + Ducts Inside+ Tankless	60	58	57 Hi-Perf Home Shell + Tankless +Tax Reqm'ts	56
	$100	$200	$300	$400	**$800**	$850	$950	$1,050	**$1,600**	$1,650	$1,700	$1,750	**$2,400**	$2,500	$2,600	$2,700	**$3,200**	$3,250

Program Enhancements

- Consumers want this…
  - Power of a number: restaurants (Zagats), wines (Parker) and gas mileage (the EPA)
- The building industry wants this…
  - Helps sell new over existing homes & differentiation
- Other stakeholders are looking at this…
  - Portland City, Gov's Office, mortgage, insurance
- Efficiency industry needs this…
  - Let builders find the easiest/cheapest way to get savings
  - Count actual not estimated savings

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Next Steps

By this Fall:

- Finalize incentive levels and confirm cost effectiveness calculations
- Repeat presentation of REMRate as compared to RTF calculator
- Update forms and other program resources
- Revamp consumer marketing around EPS
- Roll-out EPS to builders through existing BOS/verifier/HBA network
- Train verifiers and others to use REMRate

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