Energy Trust of Oregon, Inc.

Home Energy Solutions
Existing Homes

2009 Program Changes and Cooperative Marketing Redesign

Conservation Advisory Council
February 18, 2009

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2009 Funding Shortfall

- Carryover funds are projected to be gone prior to the end of the 2009 budget year
- HES Existing Homes Program budget is $1.5 million less than requested
- Program needs over $1 million of additional incentive funding to pay for the same volumes realized in 2008
- Program needs almost $2 million of additional incentive funding to allow for 15% growth over 2008 volumes in Single-family only (no growth in Multifamily)
- Air & Duct Sealing alone grew by 65-70% year-over-year from 2007 to 2008
- Contractor base steadily growing

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2009 Program Modifications

Program Modifications, Effective May 1, 2009

- Single-family
  - Heat pumps
  - Gas furnaces
  - Air sealing
  - Duct sealing
- Mobile homes (trailer parks)
- Multifamily windows
- Cooperative marketing

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Single-family

Measure and Program Modifications

- Heat pumps
- Gas furnaces
- Air sealing
- Duct sealing
- Cooperative marketing

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Single-family — Heat Pumps

Heat pump HSPF modification

- Current heat pump requirement – Min. HSPF 8.5
- New heat pump HSPF requirement – Min. HSPF 9.0
- New HSPF, effective May 1, 2009

Rationale

- 2008 Energy Trust program data
  - ✓ 2,601 heat pump incentives processed
  - ✓ 85% were higher than HSPF 8.5
  - ✓ 49% were higher than HSPF 9.0
  - ✓ Average installed cost HSPF 8.5 to 9.0 – $1,000
  - ✓ 12 manufacturers sold equipment greater than HSPF 9.5
- Aligns with Oregon Department of Energy's Specifications

Participant benefit

- Eligible for Energy Trust rebate and ODOE tax credit for all installations

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Single-family — Heat Pumps

- Heat pump incentives as of May 1, 2009
  - ✓ Upgrade: HSPF 9.0 and above – $200
  - ✓ Replacing electric resistant heat: HSPF 9.0 and above – $450

- Commissioning incentive being considered – thermostat and cutout second-stage heat

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Single-family — Furnaces

2009 furnace incentive

- May 1, 2009, stand-alone incentives for gas furnaces reduced to $100
  - Acknowledges Energy Trust endorsement is critical to up-sell efficient furnaces

2009 furnace incentive moderate income households (60%-80% median income) and Multifamily buildings

- May 1, 2009, stand-alone incentives for gas furnaces remains $150

Rationale

- Gas furnace market shifted with Energy Efficiency programs
- 40% replacement furnaces, 95% AFUE or higher
- 70%-75% replacement furnaces, 90% AFUE or higher
- High efficiency has become standard for replacements

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Single-family — Air Sealing

- Current air sealing incentive – $1 per CFM, up to $400
- Proposed air sealing incentive – 50% of cost, up to $250
- Air leakage test incentive reduced to $25 per residence tested
- New incentives begin May 1, 2009

Rationale

- Initially ratcheted up payment to attract more air sealers
- Incentive needs to align with savings; measure is not cost-effective without this change

Requirements

- Minimum 300 CFM reduction for incentive
- Blower door test, air leakage test, minimum ventilation level of 7 ACH at 50 Pa (reduction limit waived with approved mechanical ventilation)
- Contractor invoice must list pre- and post-CFM numbers, and final ACH50, and document location of air sealing

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Single-family — Duct Sealing

- Current duct sealing incentive – $1 per CFM, up to $400
- Proposed duct sealing incentive – 50% of cost, up to $300
- Duct leakage test incentive reduced to $25 per duct system tested
- New incentives begin May 1, 2009

Rationale

- Initially ratcheted up payment to attract more duct sealers
- Incentive needs to align with savings; measure cost-effectiveness is not likely without this change

Requirements

- Must have a minimum of 50% reduction to qualify for an incentive; minimum 150 CFM reduction to qualify
- Duct sealing performed by a PTCS-certified contractor
- Submit revised PTCS duct sealing form to Conservation Services Group; CSG will register eligible forms with Ecos Consulting

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Major Measures: Incentive Cost/kWh

Fuel	Measure	Avg Energy Trust Incentive	Avg kWh	Avg Incentive / kWh
Electric	Heat Pump Replacement (8.2-8.49)	$300.00	2,568.83	$0.12
Electric	Heat Pump Replacement (8.5+)	$400.00	2,693.48	$0.15
Electric	Ductless Heat Pump, Zone 2	$400.00	2,663.00	$0.15
Electric	Heat Pump Upgrade (8.5+)	$196.90	1,136.02	$0.17
Electric	Ductless Heat Pump, Zone 1	$400.00	1,767.00	$0.23
Electric	Heat Pump Upgrade (8.2-8.49)	$150.00	660.65	$0.23
Electric	Wall Insulation	$255.76	1,069.69	$0.24
Electric	Floor Insulation	$584.95	1,780.94	$0.33
Electric	Attic Insulation	$328.83	899.62	$0.37
Electric	**Air Sealing (Testing Costs Included)**	**$397.72**	**851.39**	**$0.47**
Electric	**Duct Sealing (Testing Costs Included)**	**$378.35**	**618.50**	**$0.61**
Electric	Windows	$418.76	446.89	$0.94

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Major Measures: Incentive Cost/therm

Fuel	Measure	Avg Energy Trust Incentive	Avg Therms	Avg Incentive / Therm
Gas	Tankless Water Heater	$200.00	88.15	$2.27
Gas	Gas Furnace with ECM	$149.87	60.54	$2.48
Gas	Gas Furnace without ECM	$150.00	60.32	$2.49
Gas	Wall Insulation	$313.11	88.64	$3.53
Gas	Attic Insulation	$306.23	83.94	$3.65
Gas	Floor Insulation	$521.74	79.80	$6.54
Gas	Windows	$400.52	36.34	$11.02
Gas	**Air Sealing (Testing Costs Included)**	**$383.98**	**21.82**	**$17.60**
Gas	**Duct Sealing (Testing Costs Included)**	**$364.22**	**18.35**	**$19.85**

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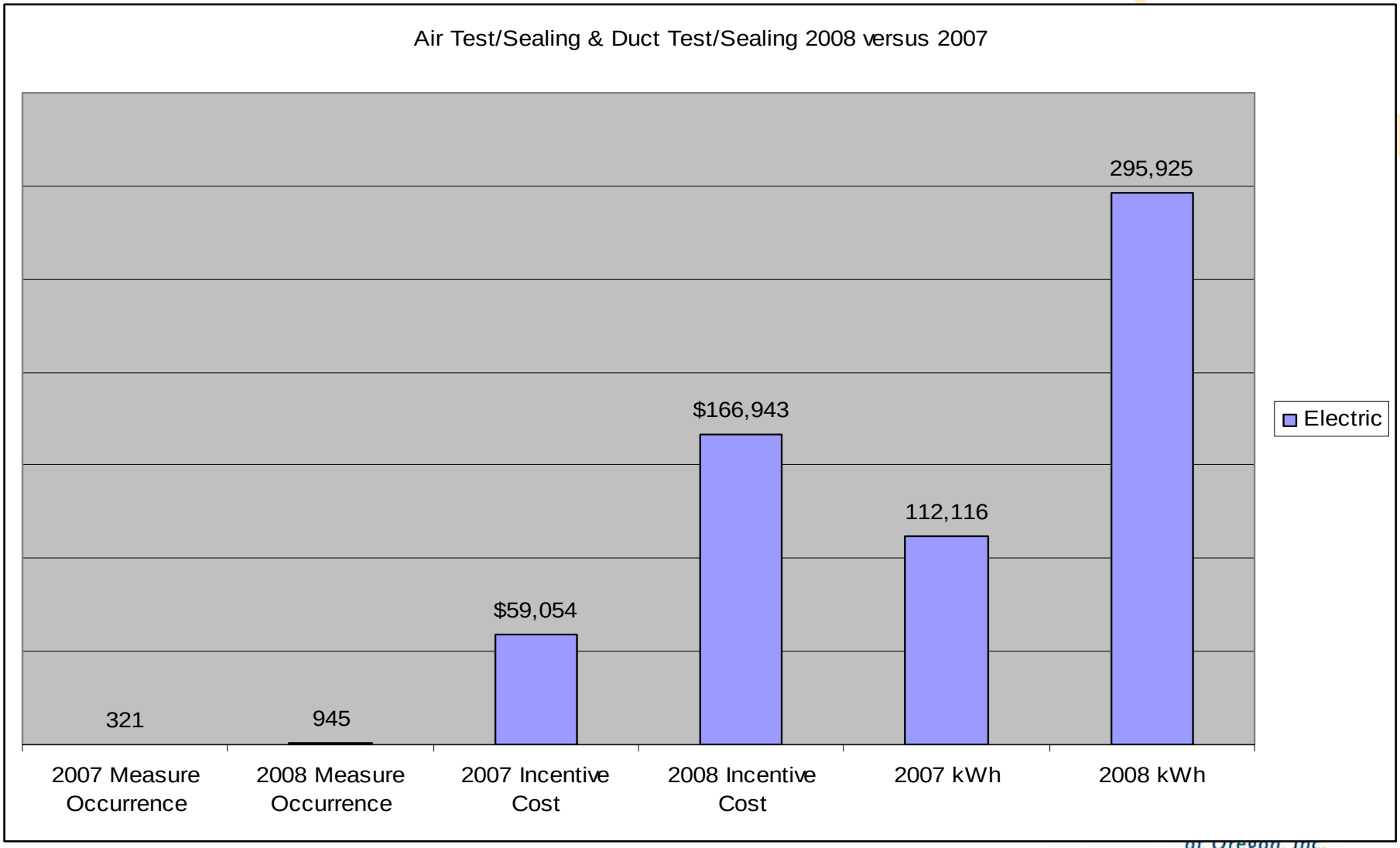
Uptake in SF Air & Duct Test/Sealing



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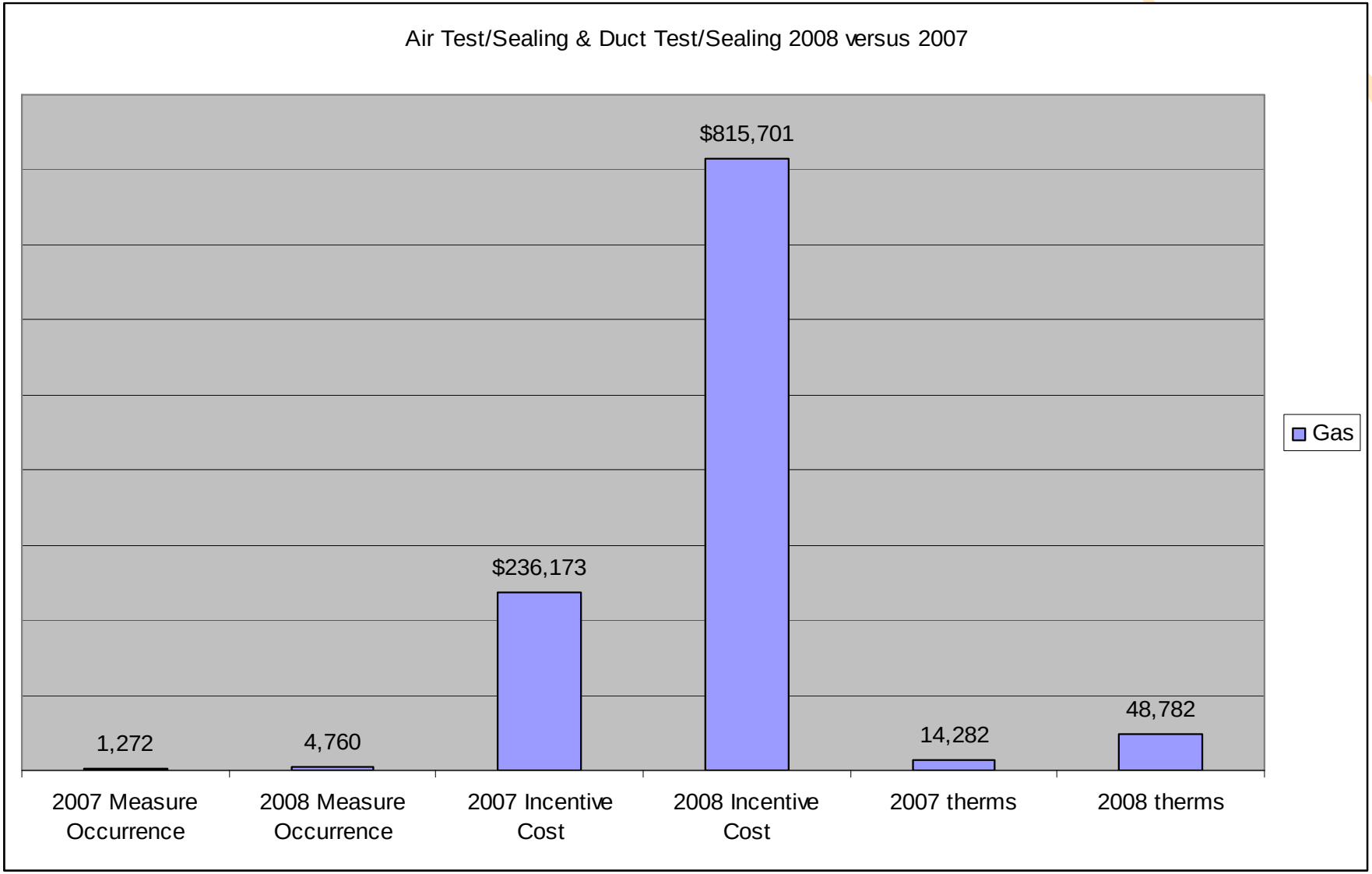
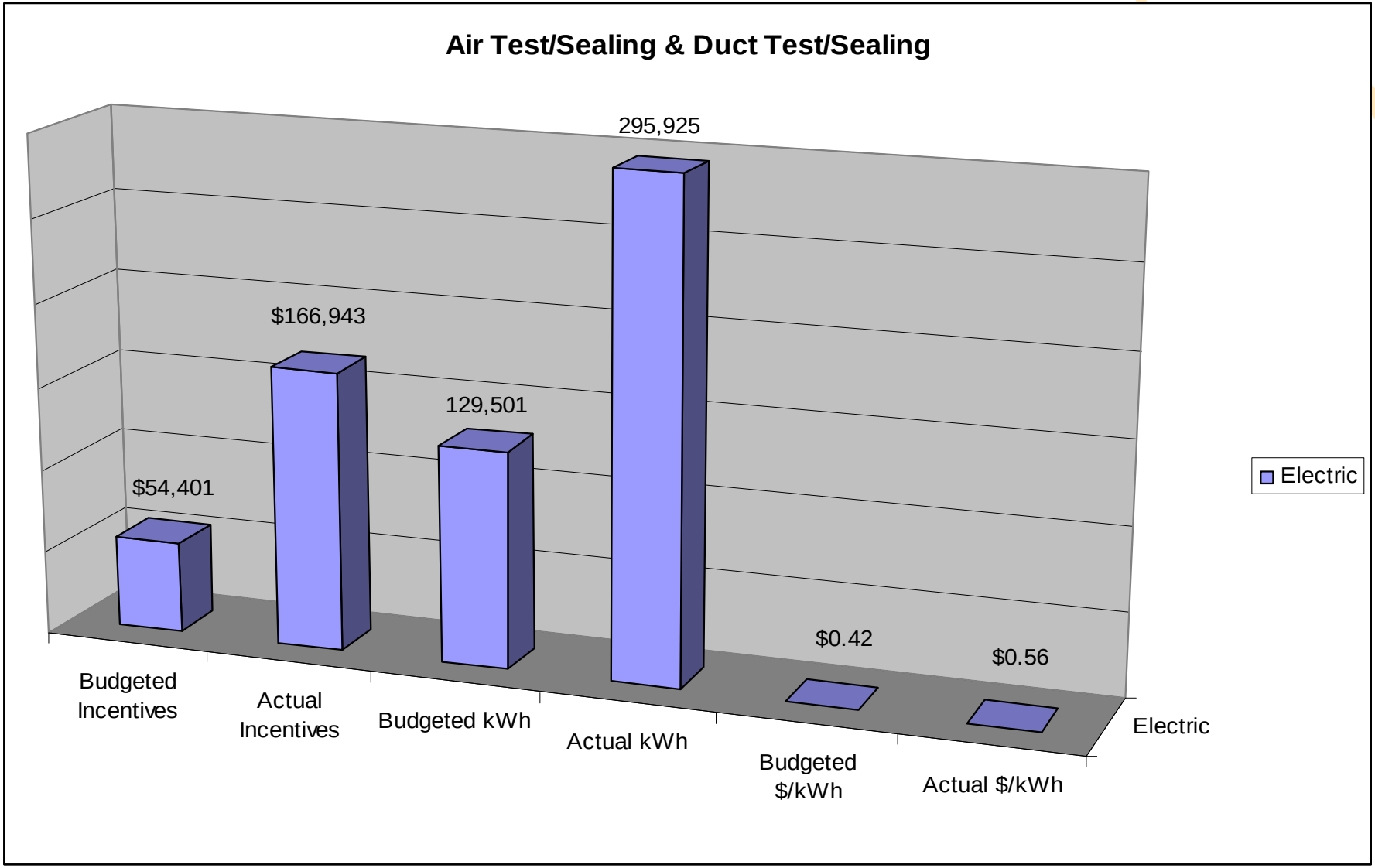


2008 Impact from Uptake (SF)



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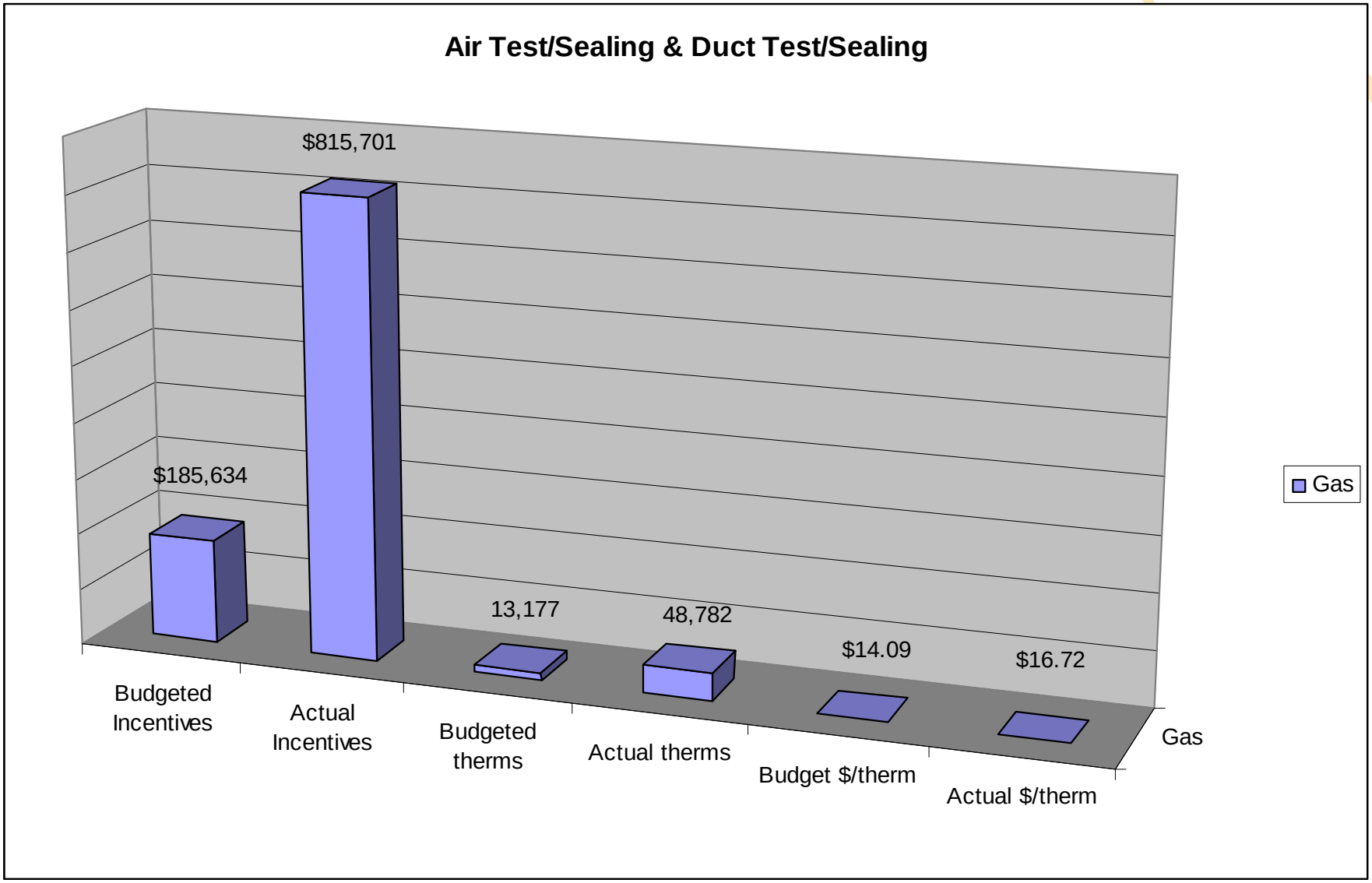

Mobile Home Parks (Mobes)

Trade Ally Program Participation Requirements

- May 1, 2009 start date
- Air sealing – no tighter than 7 ACH at 50pa
- Up to two cross-over ducts allowed; if two cross-over ducts, then 100% quality control
- Contractors enter MOU and receive allotment

  of jobs for six-month period, dependent on funding
- $25 each for duct and air sealing tests, the same payment for ISMs and $150 for a crossover duct
- Participating contractors must install CFLs and high-performance showerheads and aerators at each job – track inventory and complete installation form for each job
- Contractor payment requires invoices, inventory update, and installation form for each job submitted

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Mobile Home Parks – Duct Sealing

Rationale for Incentive Change

- Initially ratcheted up payment to attract more duct sealers
- Incentive needs to align with resulting savings; measure is not likely to be cost-effective without this change

Requirements

- Duct sealing must have a minimum of 50% reduction (minimum 50 CFM reduction) to qualify for incentive
- Contractor invoice must list pre- and post-CFM numbers, and final ACH50
- Duct sealing performed by PTCS-certified contractor
- Submit revised PTCS duct sealing form to Conservation Services Group; CSG will register eligible forms with Ecos Consulting
- Blower door test, air leakage test, minimum ventilation level of 7 ACH at 50 Pa (reduction limit waived with approved mechanical ventilation)

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Existing Mobile Homes New Requirements

Notification letter at 7 ACH

- There will be a requirement to issue a notification letter when less than 7 ACH at 50 Pa exists in the mobile home, even with an approved mechanical ventilation strategy

100% Quality Control with jobs that repair multiple complex ducts

- Beginning May 1, 2009, quality control inspections will be required when more than one complex duct repair incentive is received

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MOBE Contractor Incentives: Current versus Proposed

Measure	Current Incentive	Current Requirements	Proposed Incentive	Proposed Requirements
Air Leakage Test	n/a	n/a	$25.00	pre and post CFM numbers
Air Sealing	$1 per CFM, up to $300	min 50 CFM reduction; min ACH 8 @ 50pa	$0.50 per CFM, up to $250	min 50 CFM reduction; min ACH 7 @ 50pa
Duct Leakage Test	$50.00	performed by ODOE/PTCS certified contractor	$25.00	performed by ODOE PTCS certified contractor
Duct Sealing	$1 per CFM, up to $400	min 50 CFM reduction	$0.50 per CFM, up to $300	min 50 CFM reduction
Crossover or Air Return Repair	$150.00	n/a	$150.00	maximum 2; QC inspection required for 2 incentives
CFLs	$3.00	maximum 5 in high traffic areas	$3.00	maximum 5 in high usage areas
Low flow showerhead	n/a	n/a	$5.00	up to 1 per bathroom
Low flow aerator	n/a	n/a	$2.00	up to 2 per bathroom and up to one per kitchen

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Multifamily Windows

Minimum window U-value of 0.30 beginning May 1, 2009

Rationale:

- Of the 15,867 windows installed in the 2008 windows promotion, 95% were U-.30 or less
- Program simplification

Requirements:

- Applies to projects with electric or gas heat
- Insulation requirements for window incentives remain the same
- Electric-heated multifamily units
  - $3.00 per sq. ft. incentive for the replacement of single-glazed windows
  - $2.00 per sq. ft. incentive for the replacement of double-glazed windows
- Gas-heated multifamily units
  - $2.25 per sq. ft. incentive for the replacement of both single- and double-glazed windows

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Cooperative Marketing Restructuring

Structured to reward volume and quality

- Three tracks with consideration for being new trade ally
  - Home Energy Solutions
    - New trade allies
    - Established
  - Home Performance with ENERGY STAR®
    - New trade allies
    - Established
  - Real Estate Professional

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Home Energy Solutions
Trade Allies (first year in program)

- First year of trade ally participation; quarterly cap based on number of total employees

  - ✓11–20, $1,000/quarter
  - ✓1–10, $500/quarter
  - ✓21–30, $1,500/quarter
  - ✓31 and up, $2,000/quarter (capped out)

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Home Energy Solutions Trade Allies

$400,000+ in project cost installed (21)

- Quality control pass rate of 95% or greater
- $2,000 per quarter/$8,000 per year

- Quality control pass rate of 94% or less
- $1,500 per quarter/$6,000 per year

$100,000 – $399,999 in project cost installed (60)

- $1,000 per quarter/$4,000 per year

$99,999 and under in project cost installed (113)

- $2,000 per year

** Numbers in parenthesis indicate the number of current HES trade allies out of 196 that fall into a particular category.

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Home Performance
Trade Allies (first year in program)

- First year of trade ally participation; quarterly cap based on number of total employees
  - ✓ 1–10, $1,000/quarter
  - ✓ 11–20, $1,500/quarter
  - ✓ 21–30, $2,000/quarter
  - ✓ 31 and up, $3,000/quarter (capped out)
  - ✓ After first year of reimbursement, recalculated semi-annually,
    on the 15th of every January and July

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Home Performance Trade Allies

$200,000 and up in project cost installed (8)

- Quality control pass rate of 95% or greater
- $3,000/quarter for co-op, $12,000/year

- Quality control pass rate of 94% or less
- 2,500/quarter for co-op, $10,000/year

$50,000–$199,999 in project cost installed (11)

- $2,000 per quarter/$8,000 per year

$49,999 and under in project cost installed (7)

- $1,000 per quarter/$4,000 per year

** Numbers in parenthesis indicate the number of current Home Performance trade allies out of 26 that fall into a particular category.

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Real Estate Professional Trade Allies

Quarterly allotment $1,000 per quarter

- Reimbursement for only the following:
  - ✓ $100 cash back for becoming an Earth Advantage S.T.A.R.* and Energy Trust trade ally
  - ✓ Web site—fixed annual reimbursement of $250
  - ✓ Direct mail and flyers—33% of approved project cost
  - ✓ Business cards—33% of approved project cost
- 2009 mechanism in place to track participation and project completion by clients of real estate professionals
  - ✓ 2010 cooperative marketing will be based on project referrals

*S.T.A.R.= Sustainable Trained Accredited Realtor

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