Gas Cost Effectiveness Filing

CAC Early Look

June 18, 2014

EnergyTrust of Oregon

Summary of Commission Direction

- Order 13-256
  - Exceptions granted to cost effectiveness guidelines for all gas measures and programs through October 18, 2014
  - Before Oct 18, Energy Trust take active steps to make gas programs as cost effective as possible
  - Develop plan to modify or eliminate measures that are:
    - Clearly not cost effective
    - Not likely to be cost effective in the future
    - Do not meet exception criteria in UM 551

Summary of Commission Direction, cont.

- Report to Commission by July 1, 2014
  - Provide the following:
    - Estimated **b/c ratios (UCT and TRC)** for all gas measures with b/c ratios close to or less than 1
    - Projected **achievable savings** for each gas measure and program
    - Identify where UM 551 criteria apply
  - Identify programs and measures Energy Trust proposed to continue and which discontinue

Draft UM 1622 Docket Schedule

Gas Cost Effectiveness Exceptions - Proposed UM 1622 Schedule	
Energy Trust submit report to PUC	July 1, 2014
Deadline for parties to provide 1st round comments	July 24, 2014
Workshop	9:30 July 29, 2014
Staff release draft public meeting memo (PMM) for comment	August 13, 2014
Potential 2nd workshop (*if needed*)	9:30 August 27, 2014
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Public Meeting	September 30, 2014
Existing gas EE cost effectiveness exceptions expire	October 18, 2014

Scope of our response to OR 13-256

Data, analysis and some ideas for OPUC ***consideration*** and discussion through their public engagement process

- OPUC decides

Draft report includes items described above <u>plus</u>

- Administrative concepts for streamlined exceptions process
- Discussion of hedge or risk avoidance value for gas

Utility Cost Test (UCT)

$$\frac{\text{Utility avoided gas \& delivery costs + 10\%}}{\text{Energy Trust costs}}$$

Energy Trust costs:

- For measure analysis- we count only incentives
- For programs, includes incentives, program management costs, allocated Energy Trust admin costs.

Total Resource Cost Test (TRC)

$$\frac{\text{All benefits to (utility system+ 10\% \& participant)}}{\text{All costs to (Energy Trust \& participant)}}$$

- Benefits include <u>participant</u> non-energy benefits
- Costs include full measure cost, and for programs- program cost plus allocated Energy Trust administrative cost

Steps Taken to Improve Cost Effectiveness

- Removed PTCS duct sealing, January 2013
- Pursued prescriptive duct sealing pilot, then cancelled January 2014 based on results
- Continuing whole home air sealing for now. More evaluation updated and pilot integrating with insulation underway
- Rework of eligibility criteria for ceiling and floor insulation
- Custom gas commercial projects allowed with 0.7 and greater TRC
  - to limit market disruption and identify applicable exceptions
- Removed rooftop HVAC unit tune ups

Your Exception Decoder Ring!

A: *Significant, hard-to-quantify* **non-energy benefits**

B: Will lead to **reduced future cost**

C: **Consistency** with other regional programs

D: **Helps increase participation** in cost-effective program

E: **Cannot be changed frequently**, will be cost-effective over program life

F: **Pilot or research project**

G: **Required** by law or commission policy

Existing Buildings Program as a Whole-OK!

Year	Gas TRC BCR	Electric TRC BCR	Combined TRC BCR	Avoided Cost Version
2011	1.6	1.6	1.6	2009
2012	1.0	1.9	1.7	2013
2013	1.3	1.4	1.3	2013

Existing Buildings Gas Measures At Issue

Measure	TRC BCR	UCT BCR	2013 Savings	% of 2013 Program Savings	Future Resource Potential	Proposed Action
Select Custom Projects	0.7-0.94	>1	109,645	6.5%	Moderate	Only offer future incentives if specific non energy benefits can be quantified
Water heat					UNDER STUDY	WILL BE INCLUDED IN FINAL FILING
Convection oven	0.8	4.7	5,436	0.4%	Low	Rework with improved cost data
Dishwasher, office ENERGYSTAR residential*	0.8	2.0	0	0	Low	Remove in 2015

MF Existing Buildings Gas Measures At Issue

Measure	TRC BCR	UCT BCR	2013 Savings	% of 2013 Program Savings	Future Resource Potential	Proposed Action
Multifamily Ceiling insulation	0.4	1.2	208	0.02%	Low	????????? See Single family discussion
Multifamily Wall Insulation	0.4	1.3	84	0.01%	Low	
MF Floor Insulation	0.3	1.1	92	0.01%	Low	
Multifamily Duct insulation	0.3	1.0	6	0.004%	Low	
Multifamily Windows	0.2	1.3	663	0.05%	Moderate	

New Buildings Program as a Whole- OK!!

Year	Gas TRC BCR	Electric TRC BCR	Combined TRC BCR	Avoided Cost Version
2011	1.2	2.0	1.8	2009
2012	1.2	2.8	1.5	2013
2013	1.6	3.0	2.7	2013

New Buildings Gas Measures at Issue

Measure	TRC BCR	UCT BCR	2013 Savings	% 2013 Pro-gram	Future Resource Potential	Proposed Action
Air to Air heat exchangers	0.5	6.1	4,264	0.2%	Low	Removal in 2015
Commercial vent hoods w/VSDs	0.2	>1	2,804	0.6%	Med	Request exception D
Condensing Tank Water Heat for Multifamily & retail	.7	1.8	2,249	0.5%	Med	Rework-code changes. Request exception D
Condensing Unit Heater- non-Multifamily	0.5	>1	237	0%	Low	Rework for specific building types
Gas convection ovens	0.8	4.7	2,114	0.5%	Low	Update cost data

New Buildings Gas Measures at Issue (cont.)

Measure	TRC BCR	UCT BCR	2013 Savings	% 2013 Program Savings	Future Resource Potential	Proposed Action
Demand control ventilation	0.6	>1	1,006	0.9%	Low	Remove in 2015
Dishwasher, res, office *	0.8	2.0	0	0	Low	
Market Solutions:						
+air barrier elective (gas)	0.8	4.5	0	0	Med	Exception D,E
+ "Very Best" package (gas radiant)	0.8	2.1	0	0	Med	Exception A,B,E
+ Multifamily "Good to Better" and "Better to Best" package increments	0.6	1.0	0	0	Med	Exception D
+ Tankless water heater in Offices	0.8	>1	0	0	Med	Rework-code changes. Exception D
TOTAL			12,674	2.5%		

New Homes and Products Program as a Whole- OK!!!!

Year	Gas TRC BCR	Electric TRC BCR	Combined TRC BCR	Avoided Cost Version
2011	4.5	1.9	2.2	2009
2012	1.8	2.0	2.0	2013
2013	2.4	2.4	2.4	2013

New Homes and Products Measure In Question

Measure	TRC BCR	UCT BCR	2013 Savings	% of 2013 Program Savings	Future Resource Potential	Proposed Action
Builder Option Package with 0.67 water heater	0.6	1.1	2,176	0.02%	Small	Request exception under criteria B and C

Getting Tired of Tables Yet?

Existing Homes Program as a Whole-Issues Arise

Year	Gas Program BCRs		Electric Program BCRs		Combined BCRs		**Avoided Cost Version**
	TRC	UCT	TRC	UCT	TRC	UCT	
2011	1.7	1.6	2.5	2.6	2.1	2.3	2009
2012	0.9	1.1	2.8	2.8	1.8	2.2	2013
2013	0.8	0.7	1.4	1.9	1.2	1.4	2013
2014*	1.5	0.7					2015

Existing Homes Utility Test Issue

2013 Utility test was 0.7

2014 forecast at 0.73, after midyear redesign to increase shower heads, reduce incentive costs.

Why? Savings decreased faster than costs

- Evaluation and lower avoided cost reduced savings/measure
- Tighter qualifications mean fewer measures qualify
- Most homes weatherized. More outreach cost per sale
- Short term IT investments underway to achieve cost savings
- Hedge value not included in avoided cost
- Measure mix changes in 2014 helped TRC, did not fix UCT

Existing SF Homes Gas Measures at Issue

Measure	TRC BCR	UCT BCR	2013 Savings (annual therms)	% of 2013 Existing Homes Gas Savings	Future Resource Potential	Proposed Action
Weatherization measures						
Ceiling Insulation – standard track	0.7	2.2	39,866	3.8%	Med	To be determined
Ceiling overall average	0.5	2.2	81,653	7.7%		
Wall Insulation, standard track	0.3	1.5	11,041	1.0%	Small	
Wall overall average	0.2	1.5	36,626	3.5%		
Floor Insulation – standard track	0.3	1.2	19,393	1.8%	Small	
Floor overall average	0.2	1.2	36,628	3.5%		
Duct Insulation	0.2	1.0	4,239	0.5%	Small	

Existing SF Homes- Air Sealing

Measure	TRC BCR	UCT BCR	2013 Savings (annual therms)	% of 2013 Existing Homes Gas Program Savings	Future Resource Potential	Possible Action
Weatherization measures						
Whole Home Air Sealing	0.2	1.4	17,337	1.6%	Small	Discontinue in 2015,
Air Sealing as Added Requirement for Ceiling Insulation					Small	Complete pilot under exception criterion F-pilot or research project
TOTAL Weatherization			176,483	16%		

Existing Homes Gas Equipment Measures In Question

Measure	TRC BCR	UCT BCR	2013 Savings (annual therms)	% of 2013 Existing Homes Gas Savings	Future Resource Potential	Possible Action
0.67 & 0.70 EF Water Heaters	0.6	1.1	15,697	1.5%	Moderate	Continue through 2015 -exception C. Prepare market for mid-2015 new standard
Solar Water Heating	0.12	1.1	581	0.05%	Small	Exception A
Spa Covers	0.5	1.1	1,066	0.1%	Small	Exception C,
TOTAL Equipment			17,344	1.7%		

Insulation/Window Participant Non-Energy Benefits

- Appendix provides info on benefits, what other jurisdictions have done
- Focus on comfort and sound dampening; some discussion of others
- Value is clearly significant, difficult to quantify
- Some states choose a value anyway
- OPUC has option of considering

Concepts for Streamlined Exceptions Processes

Objectives: Timely response to opportunity, less transaction cost

General: Suggest that Energy Trust approve exceptions for pilots that meet pilot process criteria. OPUC can review, change policy if it's not working.

Prescriptive: *C*urrent process for small exceptions is good. Better definition of "small exception" and "large exception".

Custom: Energy Trust will work to anticipate classes of projects, get advance OPUC approval where feasible.

Energy Trust planning could provide first-line approval for other custom project exceptions based on UM-551 criteria. OPUC could review, correct direction or withdraw authority if they don't think it's working well.

Hedge or Risk Value

- Efficiency reduces marginal cost by reducing demand.
- Efficiency reduces risk of high costs if loads and prices are high.
- NWN to study in 2015.
- Until there is a value derived through NWN study, suggest lower B/C cutoff than 1.0 for UCT and TRC.

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