

ESA Health Comfort Safety Evaluation

Preliminary Results 2017

Overview of Presentation

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Background

- Recommended by the ESA Cost Effectiveness Working Group (CEWG) in 2013
 - Previously referred to as the Equity Evaluation
 - CEWG outlined a set of criteria and guidelines for rating
- Ordered in Decision 14-08-030
 - Preliminary qualitative evaluation
 - Conducted by the Utilities
 - Opportunity for party comment
 - Use for informational purposes

Purpose

- Informational only
 - Not used for program or measure approval
 - Not used in cost effectiveness tests
- Subjective and exploratory
- Provides a qualitative assessment of certain health, comfort and safety benefits for ESA measures
- Provides additional information to inform program impacts, measure selection and program design.

Four Evaluation Criteria

- Combustion Related Safety
- Fire Safety, Home Security & Building Integrity
- Temperature Variation
- Air Quality, Ventilation and Air Flow

Combustion Related Safety

- Applies to measures that contribute to reducing carbon-monoxide (CO) levels in the home
- Natural Gas Appliance Test (NGAT) checks for CO in the home
- Relevant ESA measures include gas appliances and ventilation/infiltration measures.

Fire Safety, Home Security & Building Integrity

- Applies to measures that mitigate safety issues in the home such as
 - Inadequate lighting
 - Broken windows and doors
 - Alternate heating devices
 - Structural deficiencies
 - Ungrounded wires
- Relevant ESA measures include furnaces, lighting, electrical appliances, envelope measures and minor repair.

Temperature Variation

- Applies to measures that mitigate extreme temperatures or improve the ability to manage in-home temperatures.
- Relevant ESA measures include all heating, ventilation, air conditioning (HVAC), air sealing and insulation measures and electric appliances with reduced heat gain.

Air Quality, Ventilation and Air Flow

- Applies to measures that reduce air contaminants, leakage/drafts, and manage air condensation/humidity.
- Relevant ESA measures include heating measures, evaporative coolers, and duct and air sealing measures.

Evaluation Guidelines

- Ratings from 0 to 5
 - Almost always results in this improvement: 5
 - Roughly half the time results in this improvement: 3
 - Only a small number of homes result in this improvement: 1
- Base ratings on understanding and experience
- Group measures where appropriate

Preliminary Results HVAC

Row ID	ESA Program Measures	Joint IOU Rating			
		Combustion Safety	Fire Safety & Building Security	Temperature Variation	Air Quality & Ventilation
	HVAC Measures				
1	Furnace Repair / Replacement	5	3	5	1
2	FAU Standing Pilot Light Conversion	0	0	0	0
3	High Efficiency Furnace	5	3	5	1
4	Central A/C Replacement	0	0	3	0
5	Room A/C Replacement	0	0	3	0
6	Heat Pump Replacement	0	0	3	1
7	Efficient Fan Control	0	0	1	0
8	Evaporative Coolers	0	0	3	3
9	Duct Testing and Sealing	0	0	5	5

Preliminary Results Enclosure, Hot Water, Lighting

Row ID	ESA Program Measures	Joint IOU Rating			
		Combustion Safety	Fire Safety & Building Security	Temperature Variation	Air Quality & Ventilation
	Enclosure				
10	Air Sealing / Envelope	1	3	5	5
11	Attic Insulation	0	0	5	0
	Domestic Hot Water				
12	Hot Water Conservation Measures *	0	0	0	0
13	Water Heater Repair/Replacement (gas)	5	0	0	0
14	Heat Pump Water Heater	0	0	0	0
	Lighting				
15	Lighting Interior (LEDs)	0	2	1	0
16	Lighting Exterior (CFL or LEDs)	0	2	0	0
17	Vacancy Sensor	0	0	0	0

Preliminary Results Appliances, Maintenance, Miscellaneous

Row ID	ESA Program Measures	Joint IOU Rating			
		Combustion Safety	Fire Safety & Building Security	Temperature Variation	Air Quality & Ventilation
	Appliances				
18	High Efficiency Clothes Washer	0	0	0	0
19	Refrigerators	0	1	1	0
20	Microwaves	1	1	3	0
	Maintenance				
21	Furnace Clean and Tune	2	0	3	4
22	Central A/C Tune-up	0	0	3	0
	Miscellaneous				
23	Pool Pump, Variable	0	0	0	0
24	Smart Power Strip Tier 1 & Advanced Tier 2	0	1	1	0

Next Steps

- Results were delivered to service list on December 13, 2017.
- Interested parties are requested to provide comments and/or alternate ratings by January 15th.
- Comments should be posted to the Energy Division's Public Document Area.
 - <https://pda.energydataweb.com>
 - Search for: ESA Health Comfort Safety Evaluation 2017
- Comments will be reviewed and considered in conjunction with upcoming related efforts.

Related Efforts

- ESA Cost Effectiveness Working Group will submit their report with recommendations related to the cost effectiveness tests used for ESA by second quarter 2018.
- A non-energy benefit study will be conducted in 2018 to update values used in the cost effectiveness tests.
- The Low Income Needs Assessment will be conducted in 2018 through 2019.
- The ESA Impact Evaluation is currently underway and preliminary results are expected in March 2018.
- The IOUs will file their mid cycle update Advice Letters in the 3rd Quarter of 2018.

ESA Cost Effectiveness Working Group Status

- Monthly meetings during 2017 and 1st quarter 2018
- Working group's current primary tasks:
 - Address issues with the adjusted ESACET test previously recommended by the working group
 - Propose method for allocating admin costs and non energy benefits across measures
 - Assess potential benefits and costs of ESA investment in other programs (e.g. demand response, solar)
 - Work with IOUs to develop work scope for non-energy benefits study
- Members include Energy Division, IOUs, NRDC, ORA, Synergy, TELACU/ACCES/Maravilla, TURN
- Working group recommendations due by 2nd quarter of 2018