



Rhode Island Energy™
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PUC Open Meeting Order: IRA Measure Level Analysis

Toby Ast, February 1, 2024

Agenda



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- PUC Order
- IRA Overview
- Eligible Measures
- Metric Calculations
- SBC Funding
- Timeline

PUC Order: Due March 18th

The Company will provide the following analysis:

- (a) identify all Inflation Reduction Act energy efficiency incentives for measures including pre weatherization that are included in the Company's Three-Year or Annual Energy Efficiency Plan;
- (b) for each identified measure, specify:
 - (i) annual and lifetime electric, natural gas, and delivered fuel savings per measure, and to the extent possible, planned quantities;
 - (ii) measure level cost benefit ratios using all of the benefits listed in tables E6 and G6 excluding economic benefits;
 - (iii) measure level cost benefit ratios excluding non-electric, non-gas, non-electric and social benefits in tables E6 and G6;
 - (iv) measure level energy efficiency cost per lifetime kilowatt hour and cost of supply per lifetime kilowatt hour;
 - (v) measure level energy efficiency cost per lifetime kilowatt hour and cost of supply per lifetime kilowatt hour excluding delivered fuel benefits and costs; and

PUC Request: Part C



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(c) for each measure identified in (a), address the following questions:

(i) Should the measure be funded by the System Benefit Charge?

If the answer is “yes”, please specify whether the measure should be fully or partially funded by the System Benefit Charge.

A. If the measure should be fully funded by the System Benefit Charge, please explain whether and how this recommendation is consistent with the Least Cost Procurement Statute.

B. If the measure should be partially funded by ratepayers [the System Benefit Charge], please explain the basis for allocating cost between ratepayers and federal funds and how this recommendation is consistent with the Least Cost Procurement principles.

Home Energy Rebates (IRA Section 50121)

- Rebates based on improvements is home energy performance
- Two pathways:
 - Modeled
 - Measured
- Single-family and multifamily homes are eligible for this program.
- New construction projects: not eligible

Home Electrification and Appliance Rebates (IRA 50121)



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- Rebates for specific measures
- Eligible: income at or below 150% of AMI
- Single and multifamily residences are eligible
- States may allow a household to receive a rebate as part of new construction
 - States are not required to provide rebates for new construction

Home Electrification and Appliance Rebates



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Product Rebates		
Upgrade Type	Qualified Product	Rebate Amount Not to Exceed
Appliance	Heat Pump Water Heater	\$1,750
	Heat Pump for Space Heating or Cooling	\$8,000
	Electric Stove, Cooktop, Range, Oven, or Heat Pump Clothes Dryer	\$840
Building Materials	Electric Load Service Center	\$4,000
	Insulation, Air Sealing, and Ventilation	\$1,600
	Electric Wiring	\$2,500
Maximum Rebate		\$14,000

Rebate Limitations		
Eligible Rebate Recipient	Income Level	Rebate Amount Not to Exceed
LMI Household or Eligible entity representative representing LMI household	Less than 80% AMI	100% of qualified project cost
	80%-150% AMI	50% of qualified project cost
Owner of multifamily building or Eligible entity representative representing owner of multifamily building	At least 50% of residents with income less than 80% AMI	100% of qualified project cost
	At least 50% of residents with income of 81%-150% AMI	50% of qualified project cost

Quick Refresher on PUC Ask

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 - (i) annual and lifetime electric, natural gas, and delivered fuel savings per measure, and to the extent possible, planned quantities;
 - (ii) measure level cost benefit ratios using all of the benefits listed in tables E6 and G6 excluding economic benefits;
 - (iii) measure level cost benefit ratios excluding non-electric, non-gas, non-electric and social benefits in tables E6 and G6;
 - (iv) measure level energy efficiency cost per lifetime kilowatt hour and cost of supply per lifetime kilowatt hour;
 - (v) measure level energy efficiency cost per lifetime kilowatt hour and cost of supply per lifetime kilowatt hour excluding delivered fuel benefits and costs; and

(i) Annual and Lifetime electric, natural gas, & delivered fuel savings

- These values have been pulled from the approved 2024-2026 Three Year Energy Efficiency Plan.



(ii) Measure level BCR using all the benefits listed in tables E6 and G6 excluding economic benefits

• RI Test BCR

Total Benefits divided by Total Resource Cost

		(ii) measure level cost benefit ratios using all of the benefits listed in tables E6 and G6 excluding economic benefits	
Electric			
Costs			
Participant Cost		Y	
Incentive Cost		Y	
Other Program Costs		N	
Benefits	Electric Energy	Electric Energy	Y
		Electric Energy DRIPE, Intrastate	Y
		Electric Energy DRIPE, Rest of Pool	Y
		Cross-DRIPE	Y
	Capacity	Summer Generation	Y
		Capacity DRIPE, Intrastate	Y
		Capacity DRIPE, Rest of Pool	Y
		PTF Transmission	Y
		Non-PTF Transmission	Y
		Distribution	Y
	Non-Electric	Reliability	Y
		Natural Gas	Y
		Cross-DRIPE	Y
		Oil and Oil DRIPE	Y
		Other-Resource	Y
		Utility NEI	Y
	Societal	Non-Resource	Y
		Carbon Benefits	Y
NOx Benefits		Y	
Economic		N	



(iii) Measure level BCR excluding non-electric, non-gas, non-electric and social benefits in tables E6 and G6

Total Utility System Benefits divided by Total Resource Cost

Electric			(iii) measure level cost benefit ratios excluding non-electric, non-gas, non-electric and social benefits in tables E6 and G6;
Costs		Participant Cost	Y
		Incentive Cost	Y
		Other Program Costs	N
Benefits	Electric Energy	Electric Energy	Y
		Electric Energy DRIPE, Intrastate	Y
		Electric Energy DRIPE, Rest of Pool	Y
		Cross-DRIPE	Y
	Capacity	Summer Generation	Y
		Capacity DRIPE, Intrastate	Y
		Capacity DRIPE, Rest of Pool	Y
		PTF Transmission	Y
		Non-PTF Transmission	Y
		Distribution	Y
		Reliability	Y
	Non-Electric	Natural Gas	N
		Cross-DRIPE	N
		Oil and Oil DRIPE	N
		Other-Resource	N
		Utility NEI	Y
		Non-Resource	N
	Societal	Carbon Benefits	N
		NOx Benefits	N
		Economic	N



(iv) Measure level energy efficiency cost per lifetime kWh and cost of supply per lifetime kilowatt hour

Cost per Lifetime kWh (\$/kWh)

Total Resource Cost divided by Net Lifetime MWh, divided by 1000 to convert into kWh

Total Cost of Supply per Lifetime kWh

Total Cost of Supply (benefits minus expenses) divided by Net Lifetime MWh, divided by 1000 to convert into kWh

			(iv) measure level cost of supply per lifetime kilowatt hour
Electric			
Costs		Participant Cost	Y
		Incentive Cost	Y
		Other Program Costs	Y
Benefits	Electric Energy	Electric Energy	Y
		Electric Energy DRIPE, Intrastate	Y
		Electric Energy DRIPE, Rest of Pool	Y
		Cross-DRIPE	Y
	Capacity	Summer Generation	Y
		Capacity DRIPE, Intrastate	Y
		Capacity DRIPE, Rest of Pool	Y
		PTF Transmission	Y
		Non-PTF Transmission	Y
		Distribution	Y
		Reliability	Y
	Non-Electric	Natural Gas	Y
		Cross-DRIPE	Y
		Oil and Oil DRIPE	Y
		Other-Resource	Y (no water)
		Utility NEI	Y
		Non-Resource	N
	Societal	Carbon Benefits	Y
NOx Benefits		Y	
Economic		N	



(v) Measure level energy efficiency cost per lifetime kWh & cost of supply per lifetime kWh excluding delivered fuel benefits and costs

Total Cost of Supply per Lifetime kWh (excluding delivered fuel benefits and costs)

Total Cost of Supply (benefits minus expenses) divided by Net Lifetime MWh, divided by 1000 to convert to kWh

Electric		(v) measure level cost of supply per lifetime kilowatt hour excluding delivered fuel benefits and costs	
Costs	Participant Cost	Y	
	Incentive Cost	Y	
	Other Program Costs	Y	
Benefits	Electric Energy	Electric Energy	Y
		Electric Energy DRIPE, Intrastate	Y
		Electric Energy DRIPE, Rest of Pool	N
		Cross-DRIPE	Y
	Capacity	Summer Generation	Y
		Capacity DRIPE, Intrastate	Y
		Capacity DRIPE, Rest of Pool	N
		PTF Transmission	N
		Non-PTF Transmission	Y
		Distribution	Y
		Reliability	Y
	Non-Electric	Natural Gas	Y
		Cross-DRIPE	Y
		Oil and Oil DRIPE	N
		Other-Resource	N
		Utility NEI	Y
		Non-Resource	N
	Societal	Carbon Benefits	Y
NOx Benefits		Y	
Economic		N	

Plan Measures Eligible for IRA Incentives?

- Should RIE Residential New Construction Programs be included?
 - Performance based incentives: not measure specific
 - NC Not eligible under HER
 - NC eligible under HERA but those measures would be included



Based on LCP, Should the measure be funded (in whole or in part) by the System Benefit Charge?

- Example Methodology:
- Benefit Cost Ratio (ii) and cost of additional supply, excluding delivered fuel benefits (v)
 - If BCR 1 or greater and cost to deliver **LESS** than cost of additional supply, may be **FULLY FUNDED** by SBC (Cost Effective, Less than cost of additional supply)
 - If BCR 1 or greater, and cost to deliver **MORE** than cost of additional supply, may be **PARTIALLY FUNDED** by SBC
 - If BCR less than 1 and cost to deliver **MORE** than cost of additional supply, may **NOT BE FUNDED** by SBC
- Other Considerations:
 - Low-Income measures: currently fund 100%
 - Measure versus program level cost effectiveness
 - Measure Bundles
 - Portfolio Costs
 - Other LCP Considerations

Draft Timeline



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- February 9th: Initial Analysis of Measures Complete
- February 22nd: Draft analysis and LCP Discussion Complete, shared with Stakeholders at TWG
- March 18th: Analysis due to PUC



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