



Consortium for Energy Efficiency

Overview of Residential Water Heater Programs

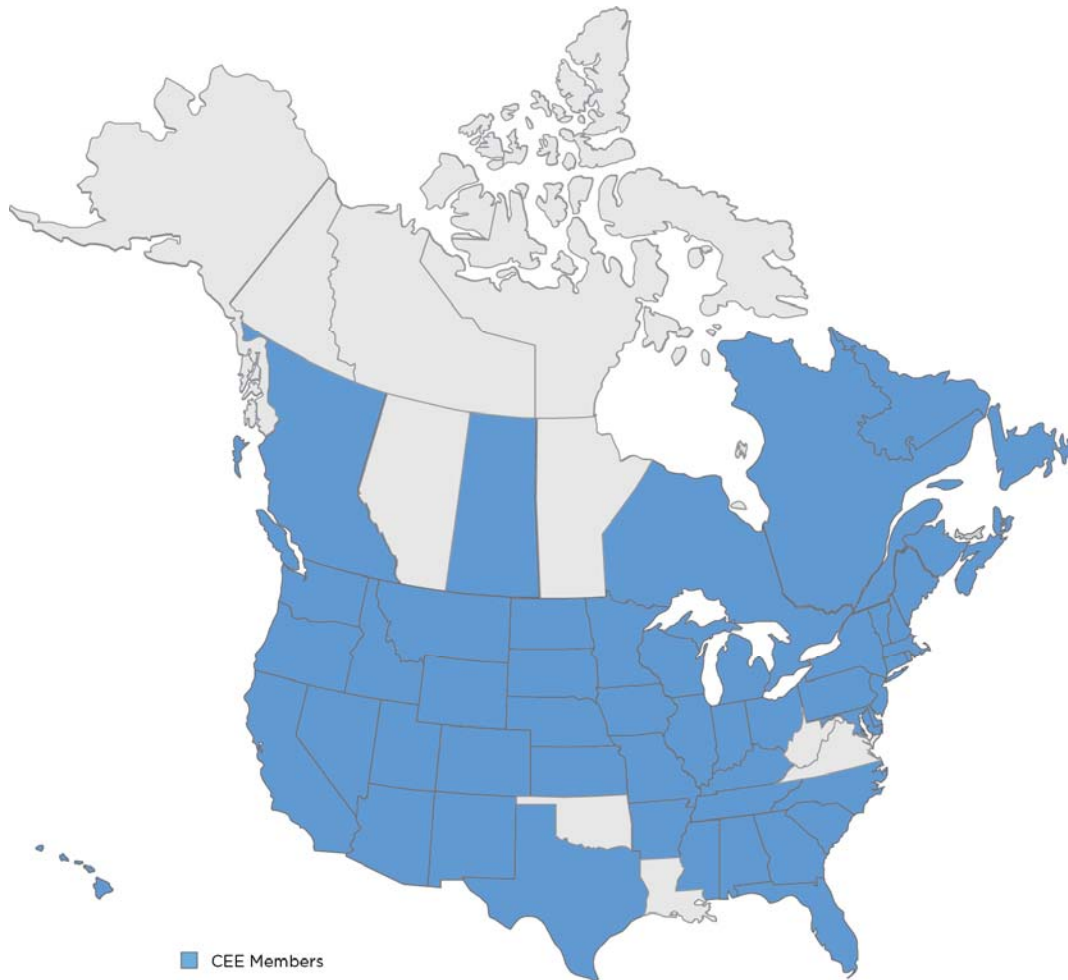
George M. Chapman
Senior Program Manager
February 23, 2016
ACEEE Hot Water Forum


Program administrators formed CEE

- ▼ To reach **binational markets**
- ▼ **Accelerate market uptake** of efficient products and services
- ▼ Which achieves **lasting public benefit** of energy efficiency

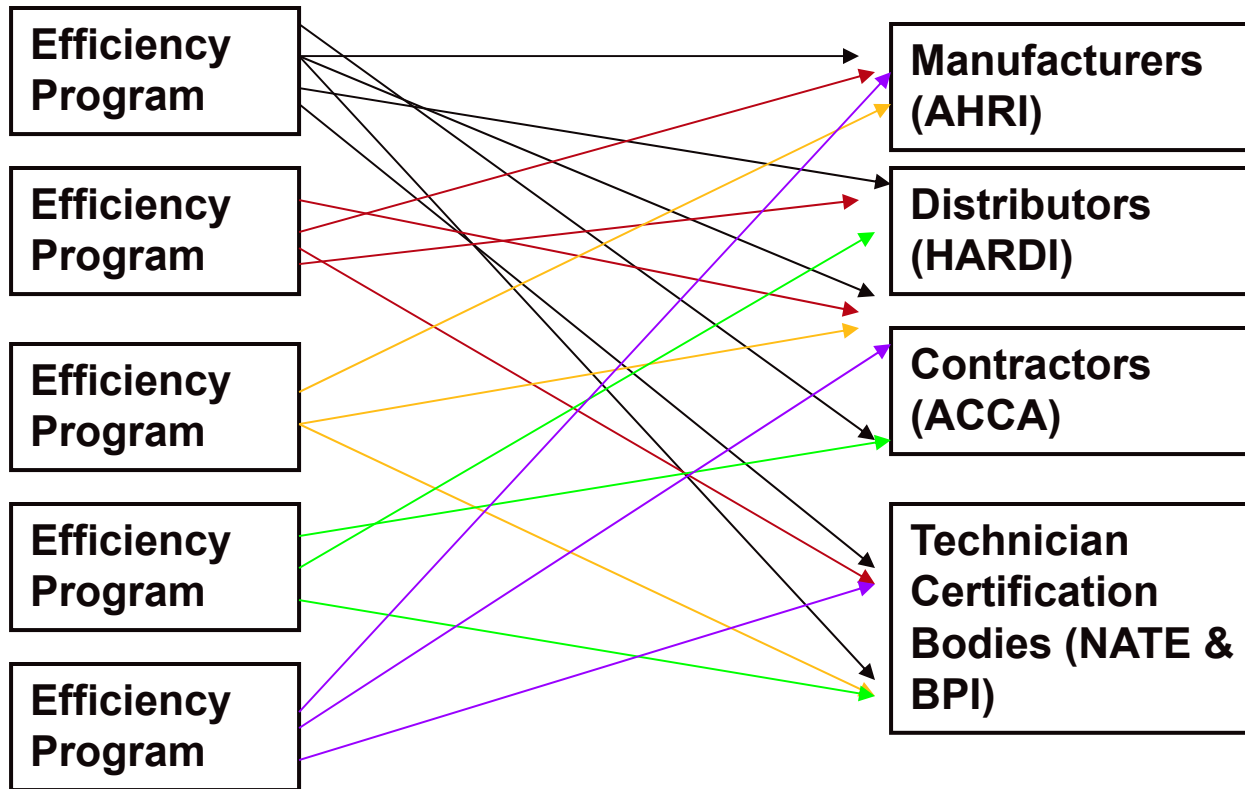


CEE Today



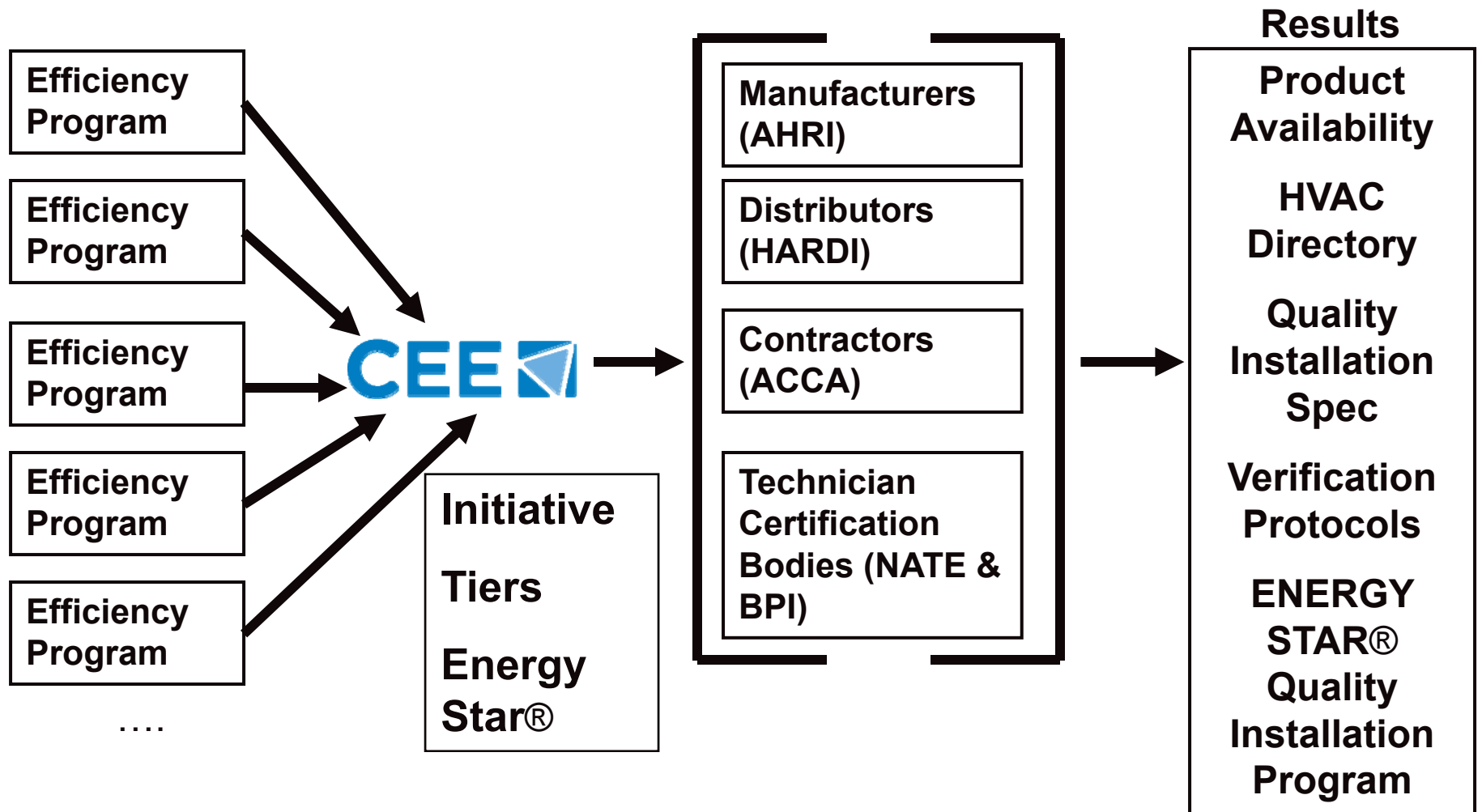
- ▶ CEE brings together 100 program administrators serving all or part of 45 states and 7 provinces
- ▶ CEE program model was recognized by the EPA with the 2009 Climate Protection Award 
- ▶ CEE is a member-driven nonprofit, governed by a Board of Directors from member organizations

Approach to the Residential HVAC market before CEE



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Results in more efficient products available and installed correctly



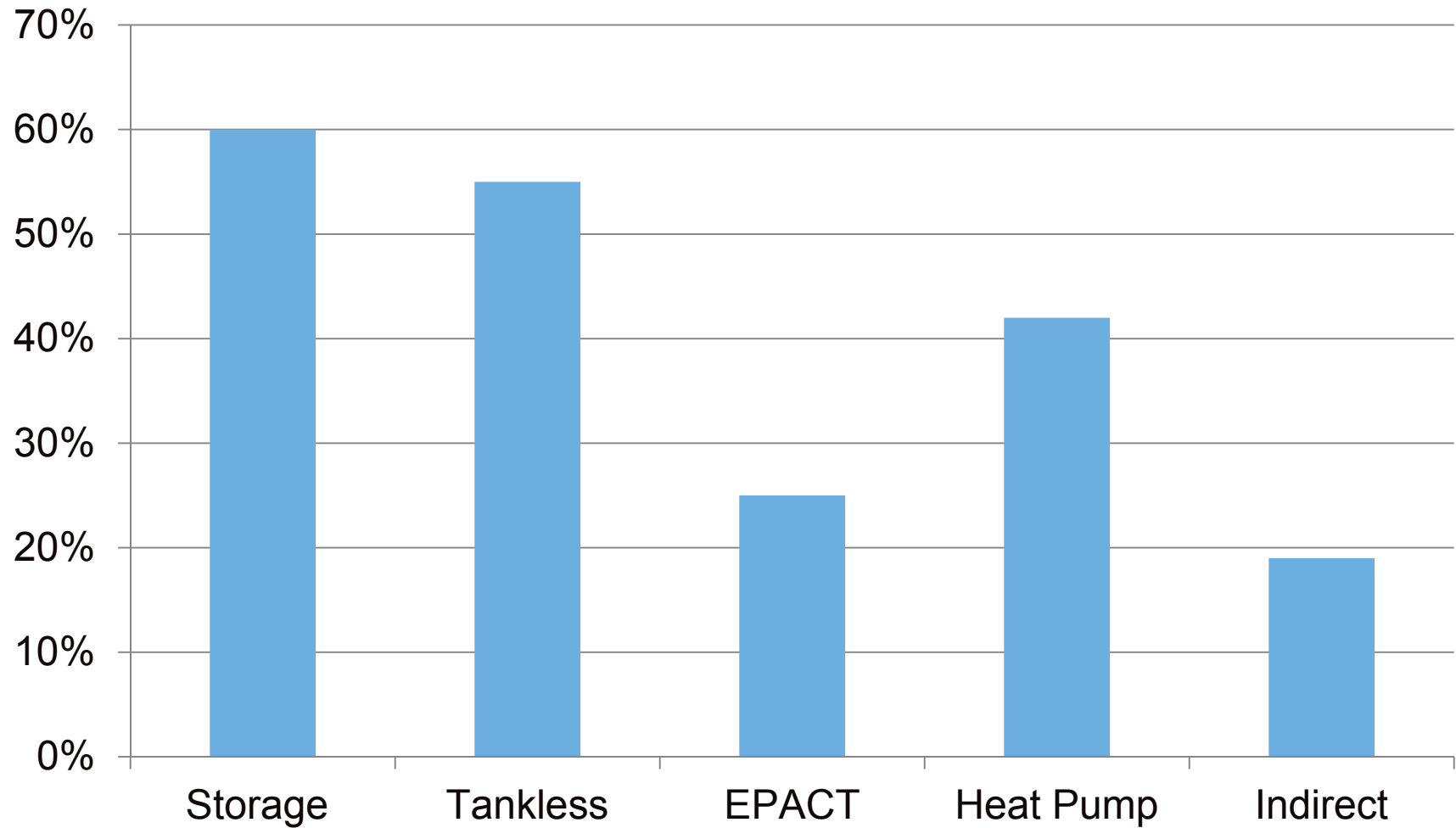
Insight From the 2015 CEE Water Heater Program Summaries



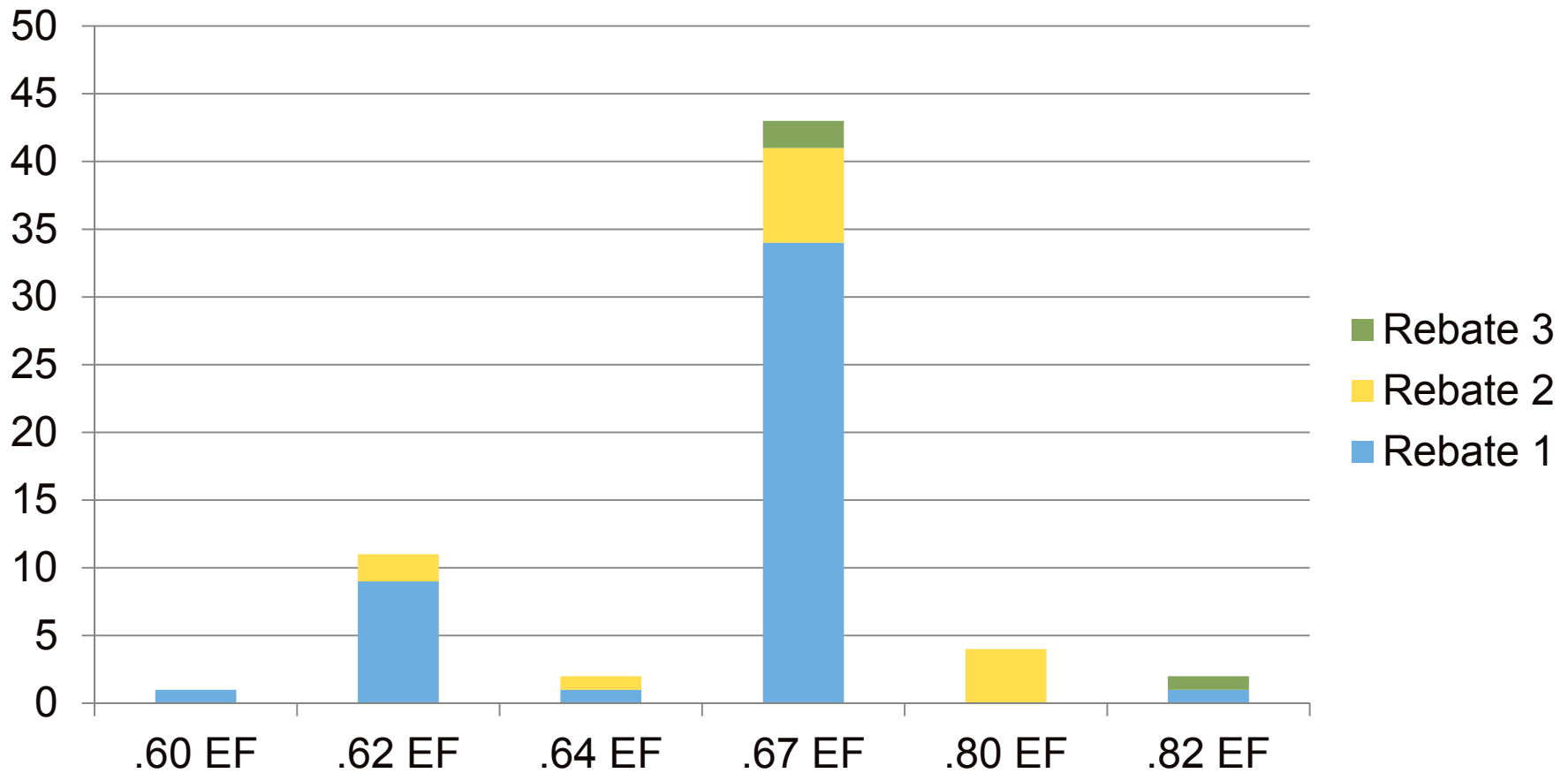
Program Summary Scope

- ▶ Current program information for water heaters and related efficiency measures
- ▶ Survey of 83 CEE member programs
 - Covering 38 US states and Canadian provinces
 - Gas, electric and dual fuel programs
- ▶ A representative sample of programs from publicly available information
 - Not an analytical study or evaluation of water heater programs
 - Does not capture measure uptake or participation

Overview of Program Measures



Gas Storage Water Heater Rebate Levels by EF

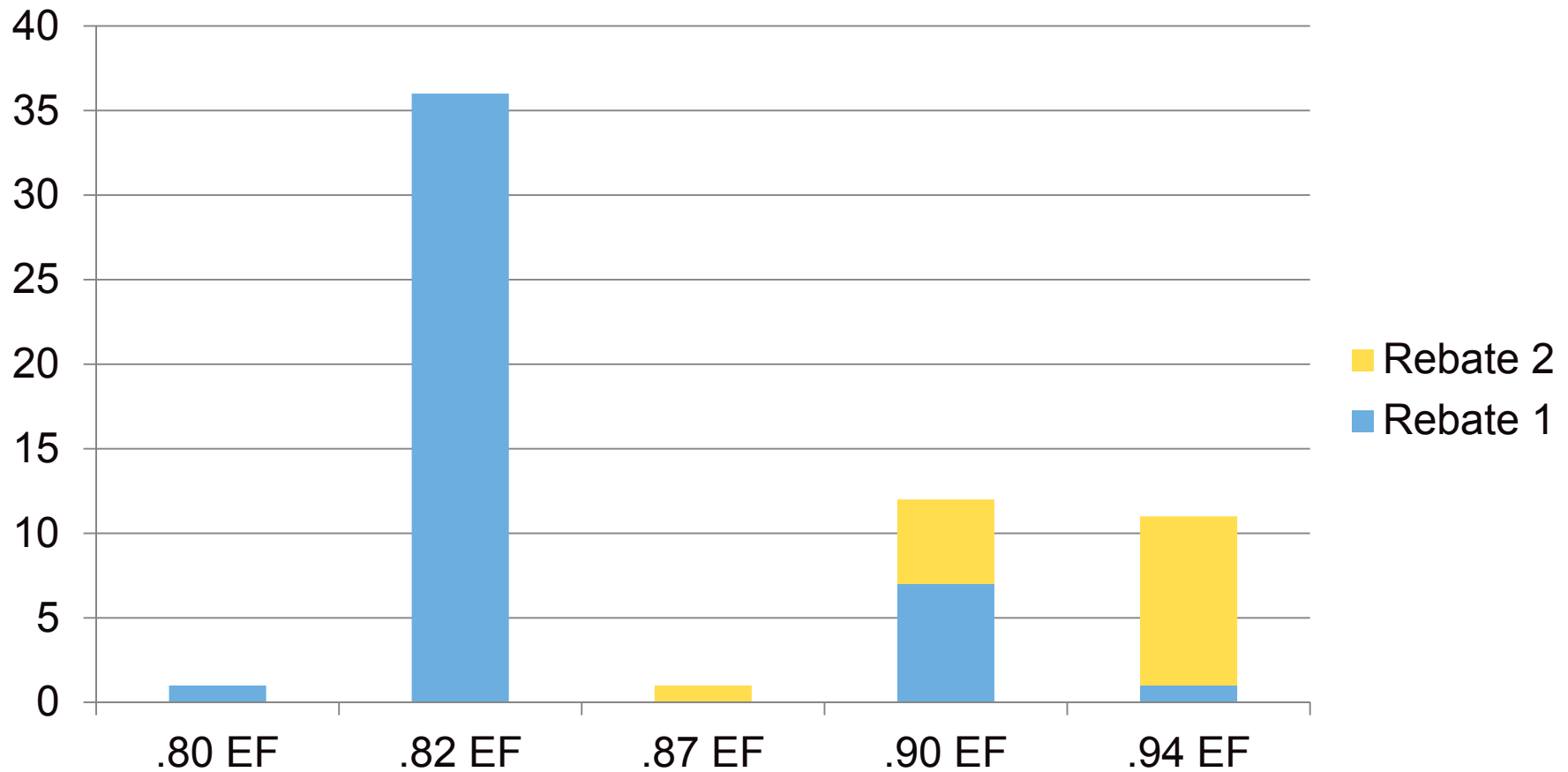


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Tier 1

Tier 2

Gas Tankless Water Heater Rebate Levels by EF

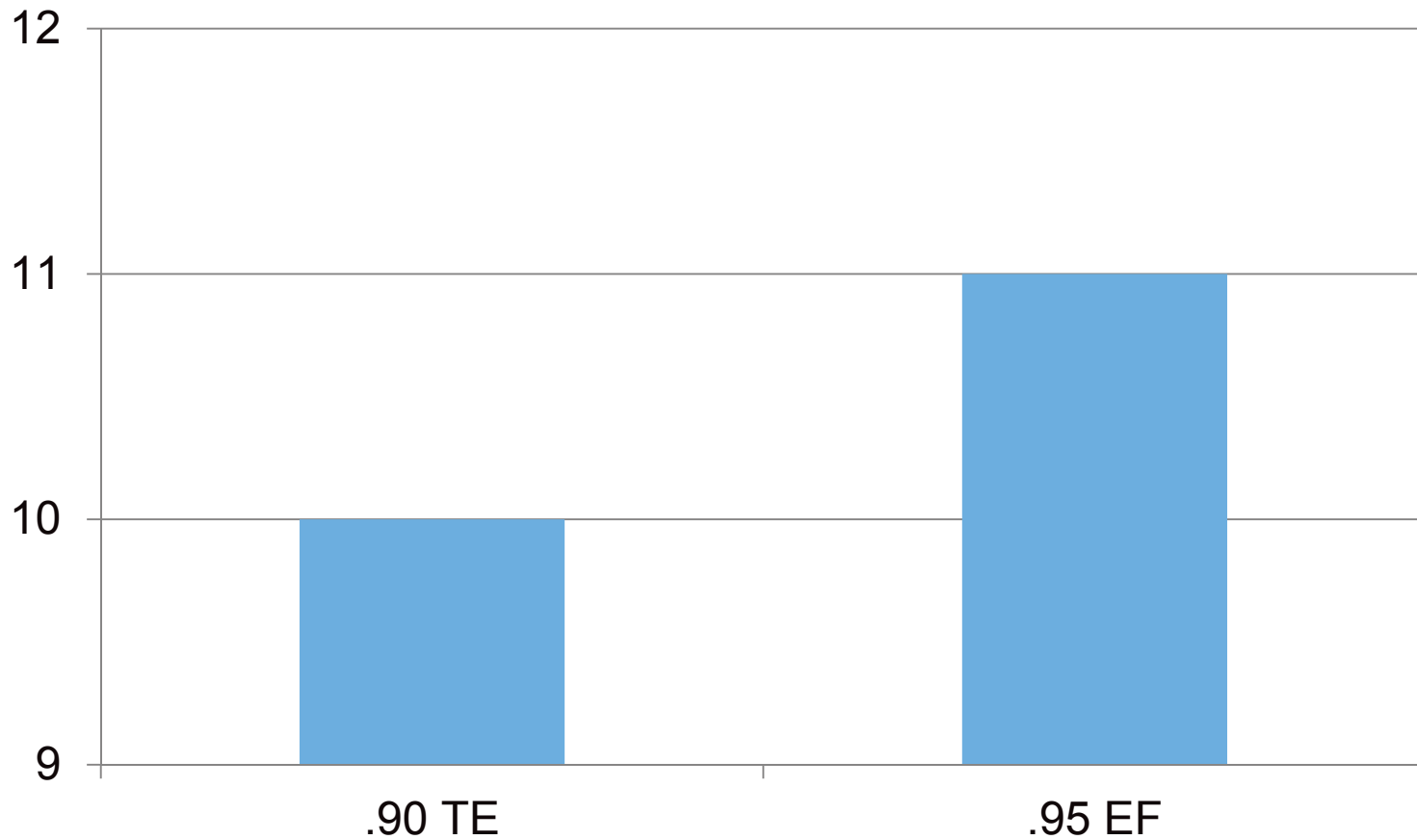


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Tier 1

Gas EPACT Water Heater Rebate Levels by TE



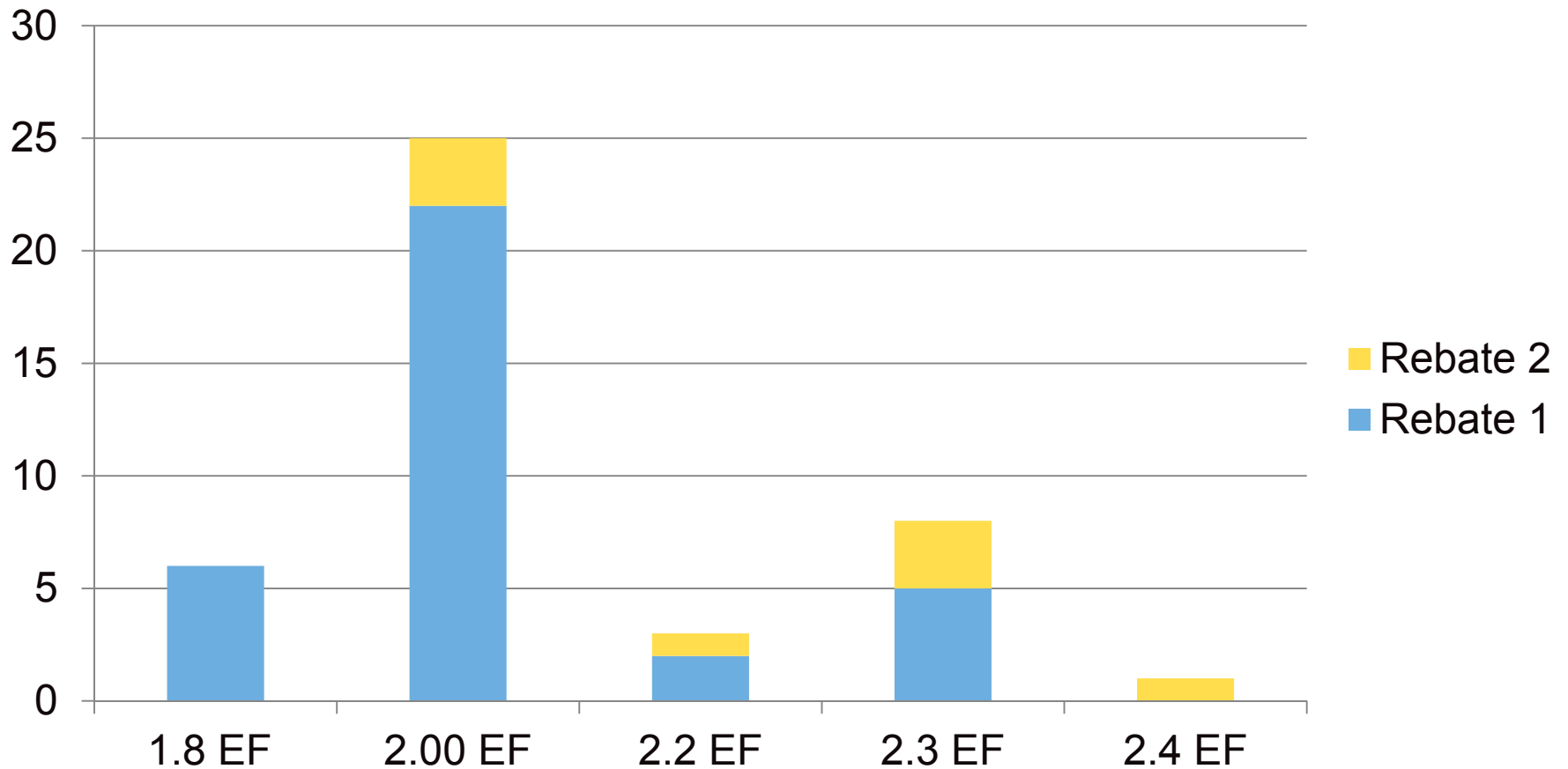
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Commercial Tier 1

Commercial Tier 2

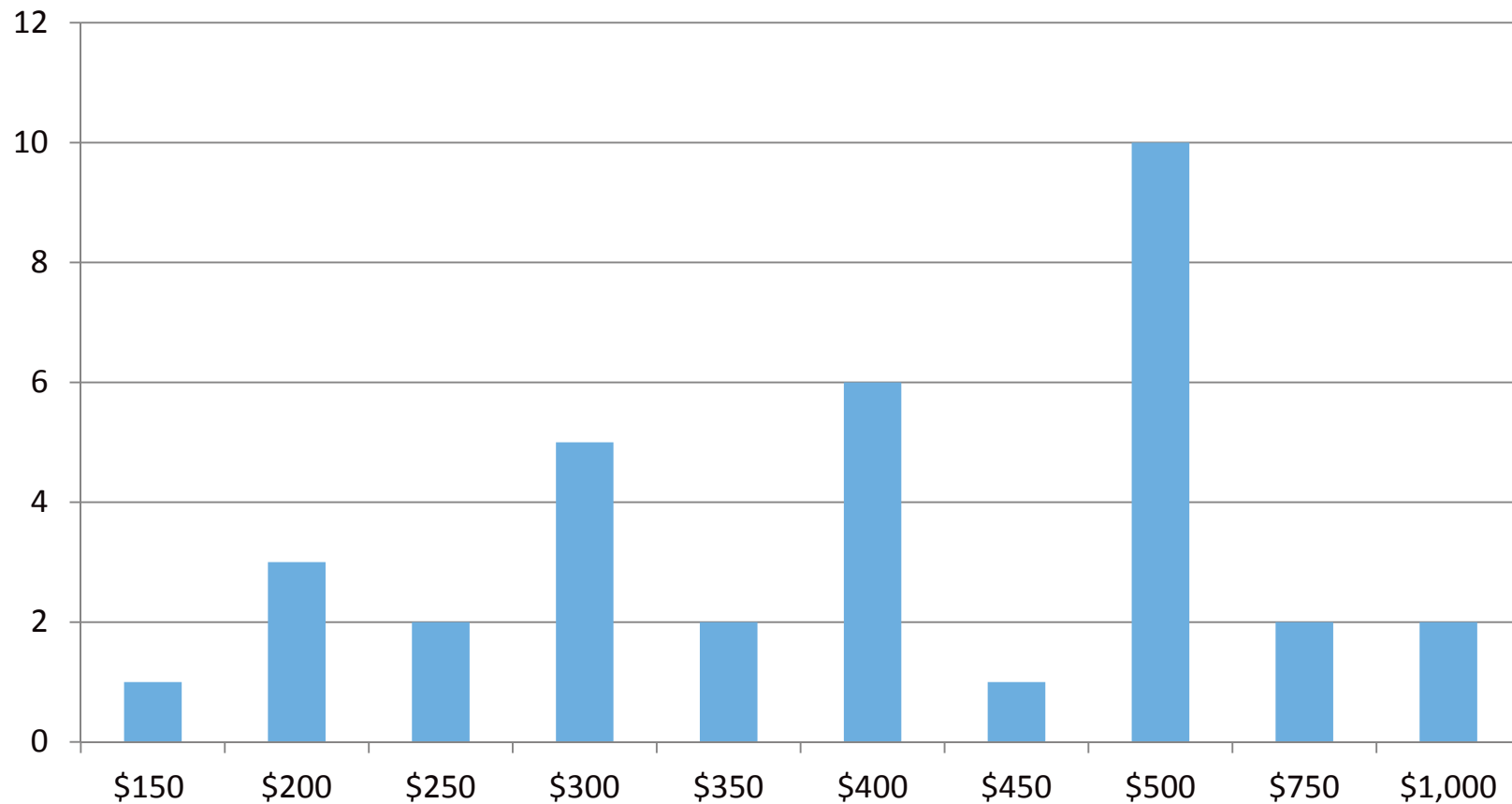
Heat Pump Water Heater Rebate Levels by EF



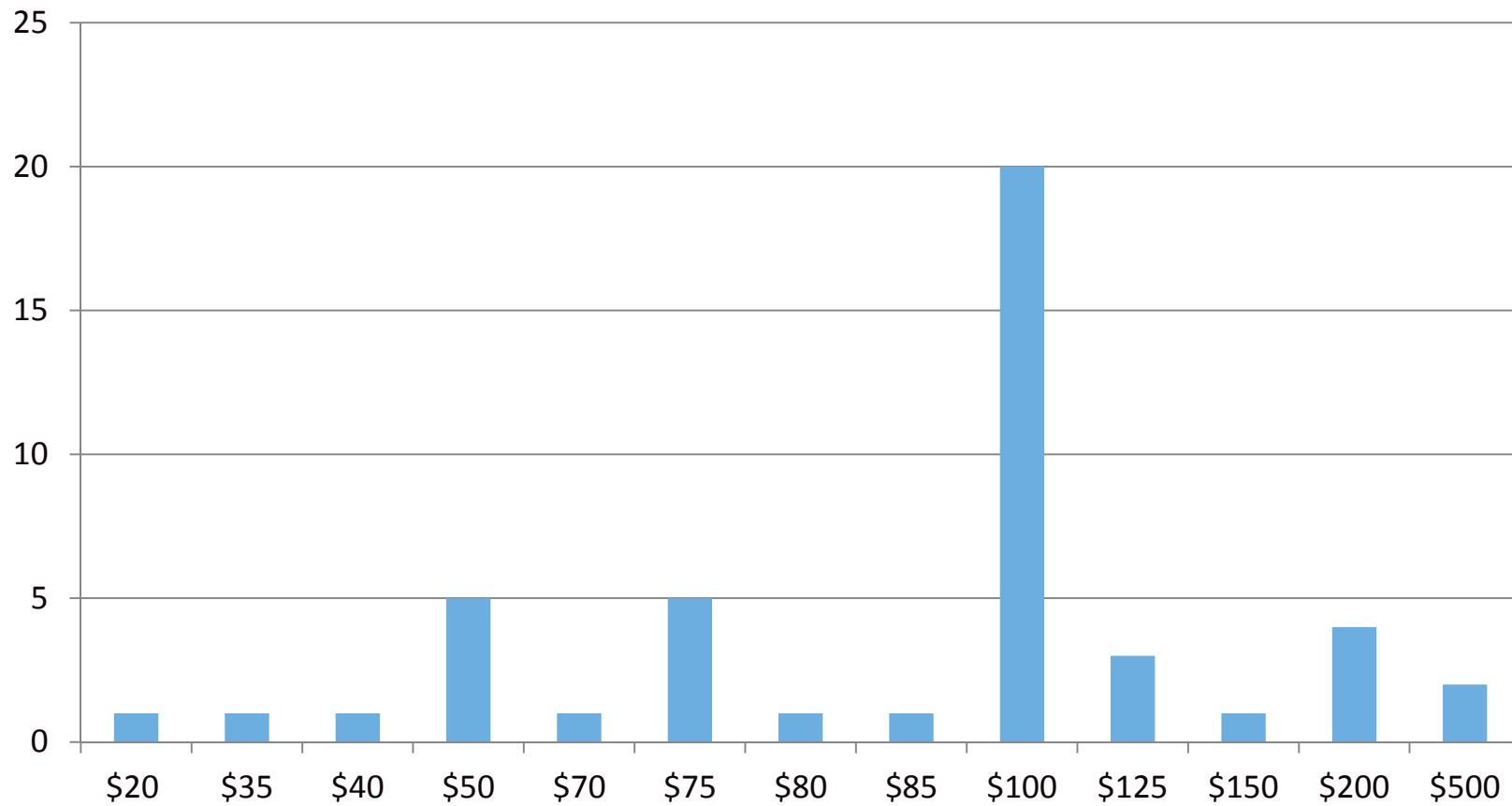
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No CEE Specification

Heat Pump Water Heater Tier 1 Rebate Amounts Offered

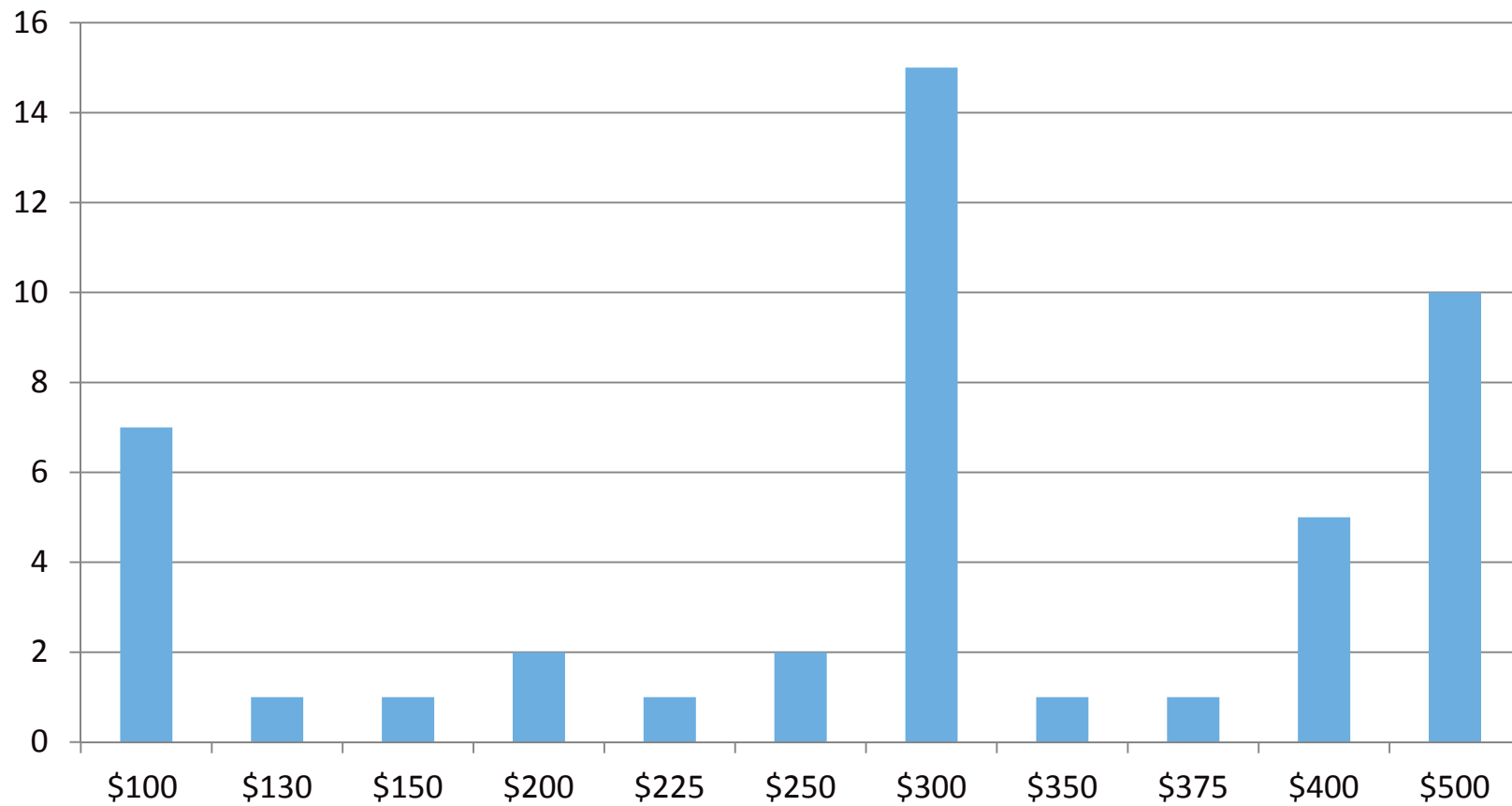


Gas Storage Water Heater Tier 1 Rebate Amounts Offered



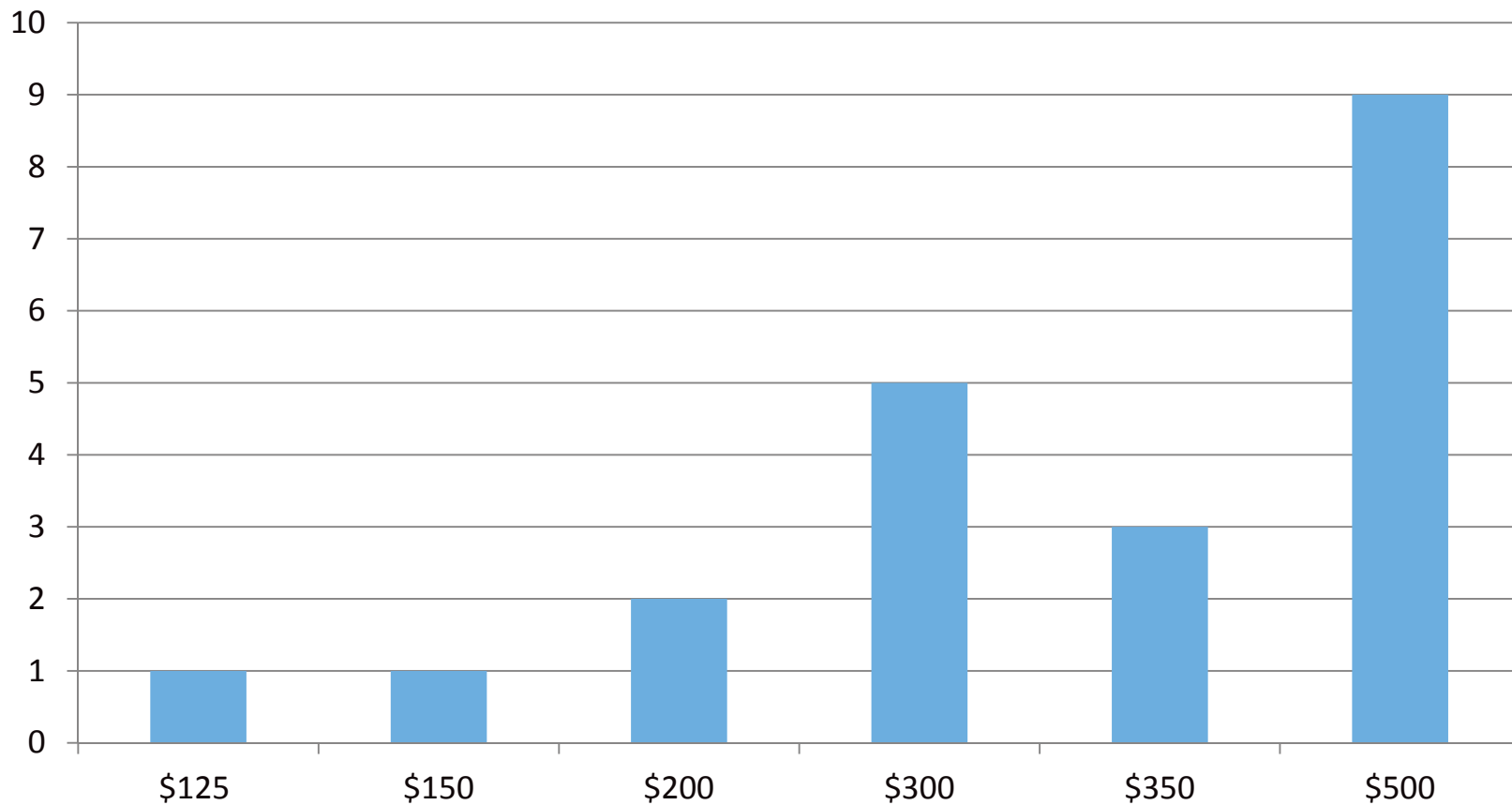
Gas Tankless

Tier 1 Rebate Amounts Offered

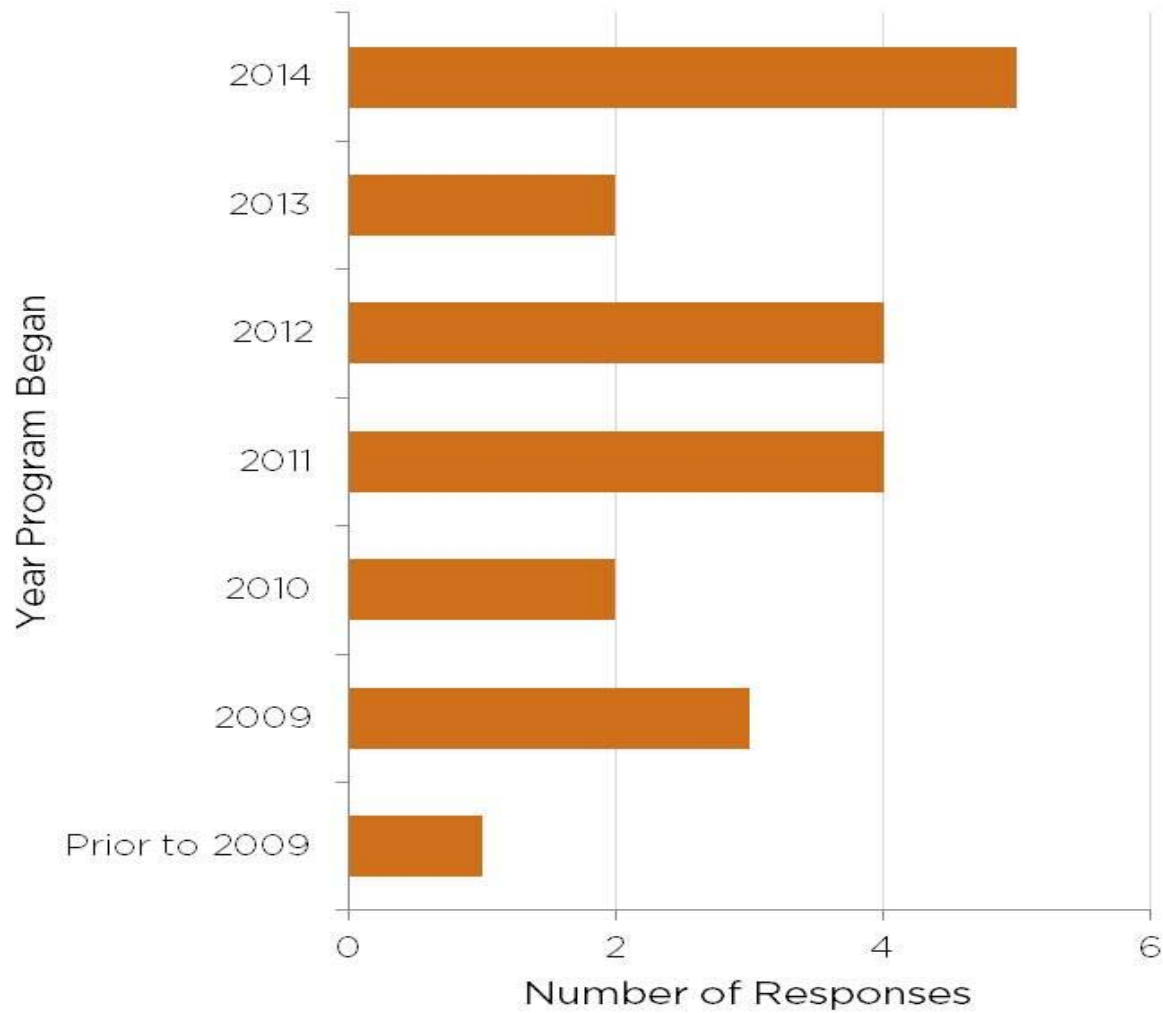


Gas EPACT

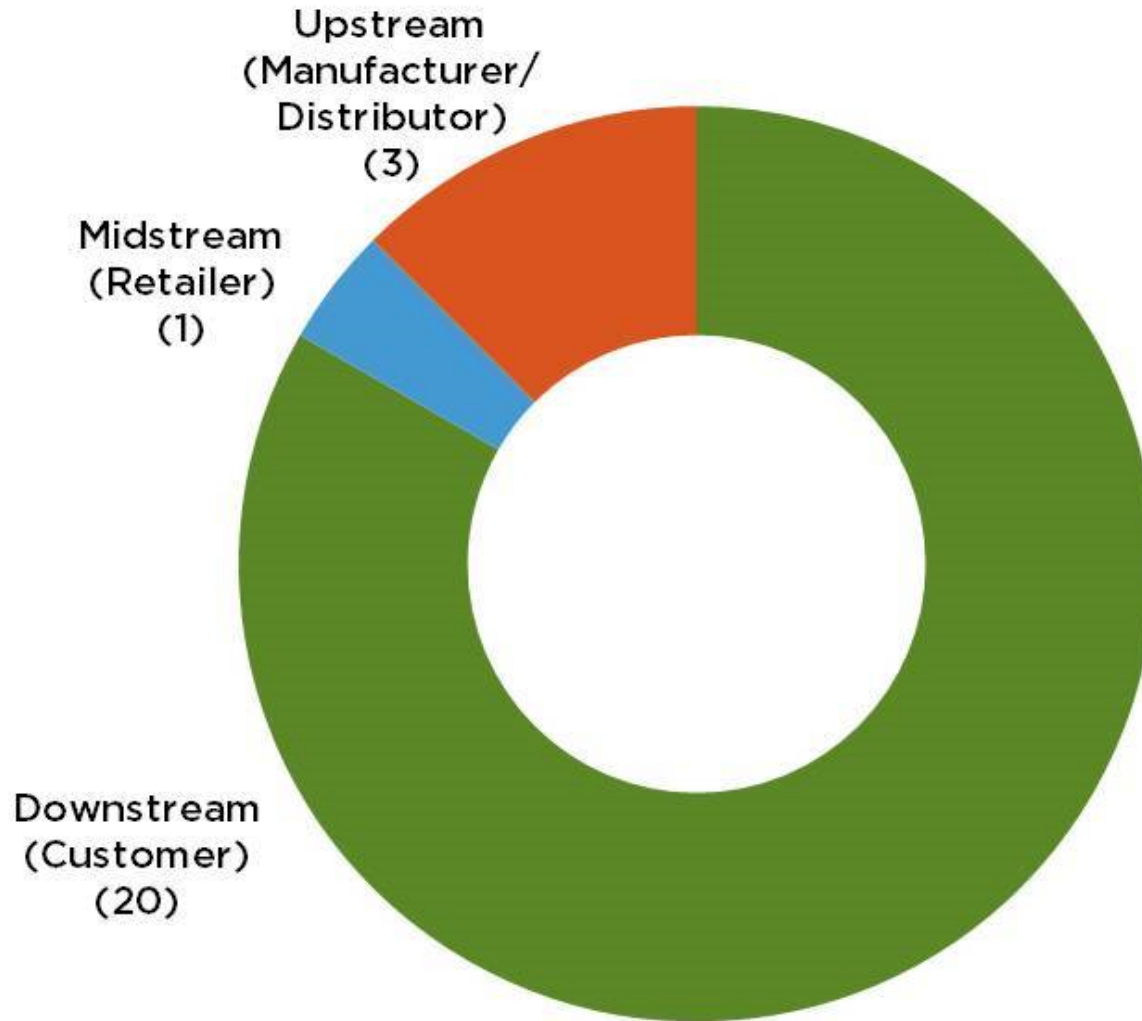
Tier 1 Rebate Amounts Offered



Heat Pump Water Heater By Year Introduced

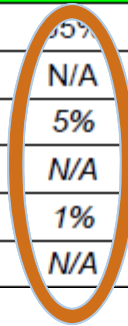


Heat Pump Water Heater Rebates by Recipient



Water Heater Market Penetration

Product Category ¹	2014 Units Shipped (thousand units unless otherwise stated)	2014 Estimated Market Penetration	Specification Revisions Affecting Future Market Penetration (Version - Effective Date)
Televisions	35,102	99%	Version 7.0 – October 30, 2015
<i>LCD</i>	34,284	100%	
<i>OLED</i>	13	34%	
<i>Plasma</i>	588	55%	
<i>TV Combination Units</i>	217	13%	
Uninterruptible Power Supplies	3,790	N/A	
Vending Machines	54	22%	
Ventilating Fans	3,434	N/A	Version 4.0 – October 1, 2015
Water Coolers	1,223	5%	
Water Heaters		N/A	
<i>Gas Storage</i>	216	5%	
<i>Gas Tankless</i>	416	N/A	
<i>Heat Pump</i>	46	1%	
<i>Solar</i>	3	N/A	



A Couple of Final Thoughts

- ▶ Many programs are struggling to meet cost-effectiveness challenges
 - High unit and install costs, low fuel prices
- ▶ Low program participation rates as well
 - Emergency replacements continue to hinder market transformation
 - Contractor education and outreach are key
 - Many programs are interested in going upstream
- ▶ New minimum standards require additional considerations, and program revisions

Contact



George M. Chapman
Senior Program Manager
617-337-9262
gchapman@cee1.org