



Residential Energy Efficiency Water Heater Programs in the US and Canada

Alice Rosenberg
February 27, 2017
Portland, OR
ACEEE Hot Water Forum

CEE MISSION

As the Consortium for Energy Efficiency, United States and Canadian efficiency program administrators develop cutting-edge strategies to accelerate commercialization of energy efficient solutions to benefit gas and electric customers, utility systems, and the environment.

- ▶ CEE brings together 100 program administrators serving all or part of 45 states and 7 provinces
- ▶ CEE is a member-driven nonprofit, governed by a Board of Directors from member organizations
- ▶ Program administrators formed CEE to reach binational markets and accelerate market uptake of efficient products and services, which achieves lasting public benefit of energy efficiency

Agenda



▼ CEE Program Summaries

- Objectives and purpose
- Data collection process and methodology

▼ AND THE RESULTS!!

- Organizational breakdown information
- Natural Gas programs and findings
- Heat Pump Water heater programs and findings

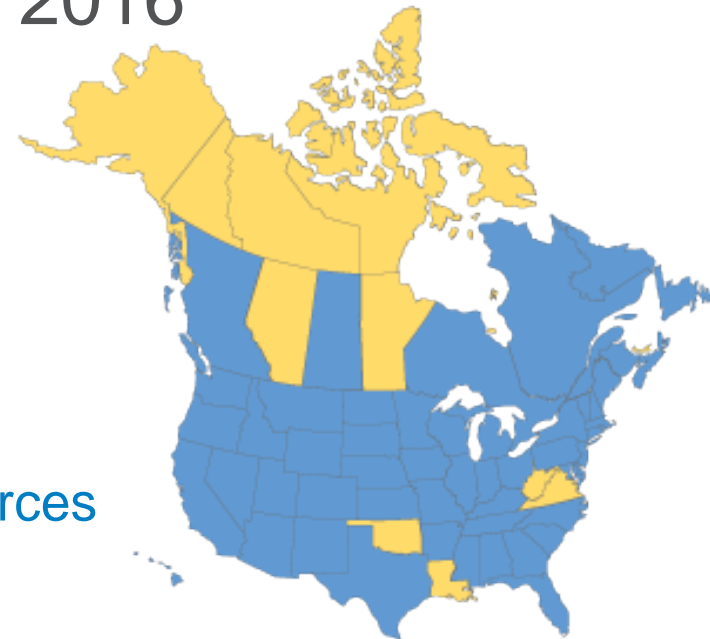
▼ Trends, Themes, and Thoughts About the Future

- What now?

CEE Program Summaries

- ▼ Data collection from a combination of online research and subsequent CEE member review
- ▼ Information fielded in Summer 2016
- ▼ Abridged versions of these publications are available online to all stakeholders at:

www.cee1.org/content/cee-program-resources

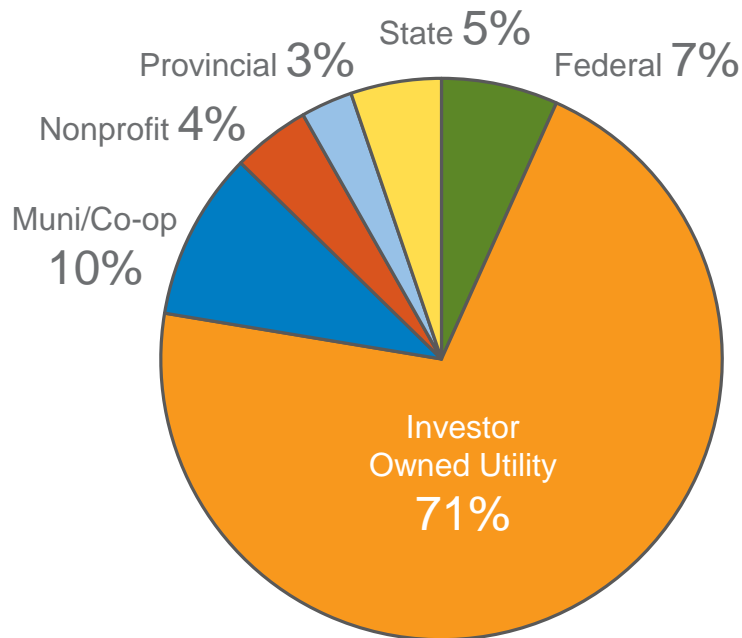


And the Results!

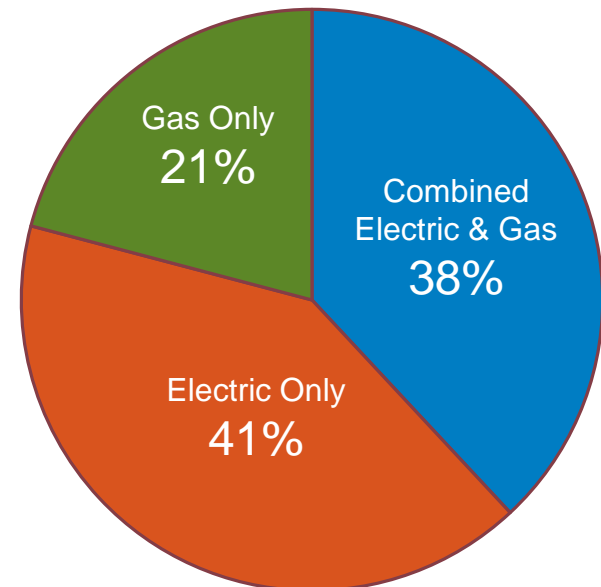
▶ 134 Member Programs

- 43 US States, District of Columbia, 4 Canadian Provinces

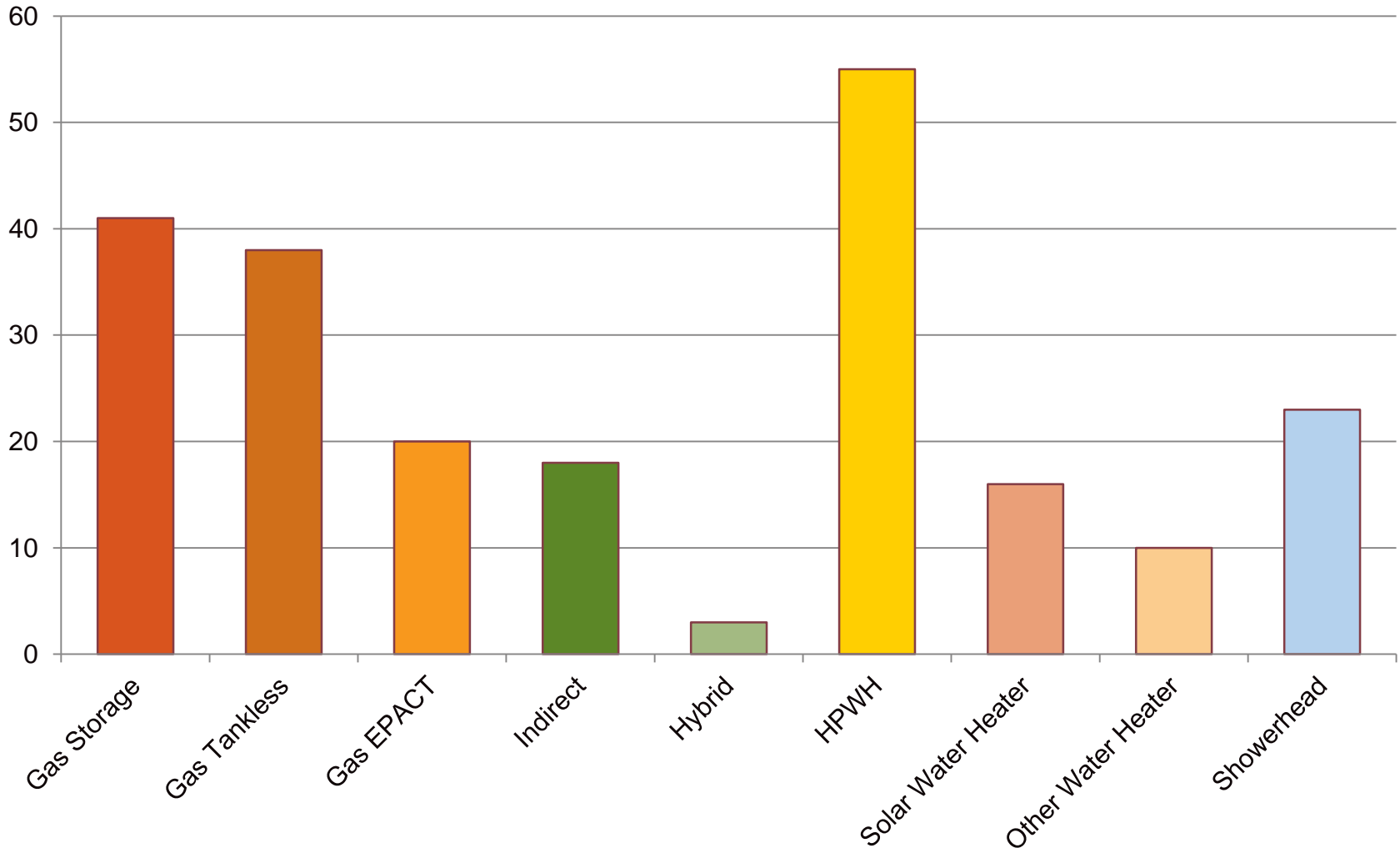
Organization Type



Fuel Type



2016 Res Water Heating Programs



Program Design

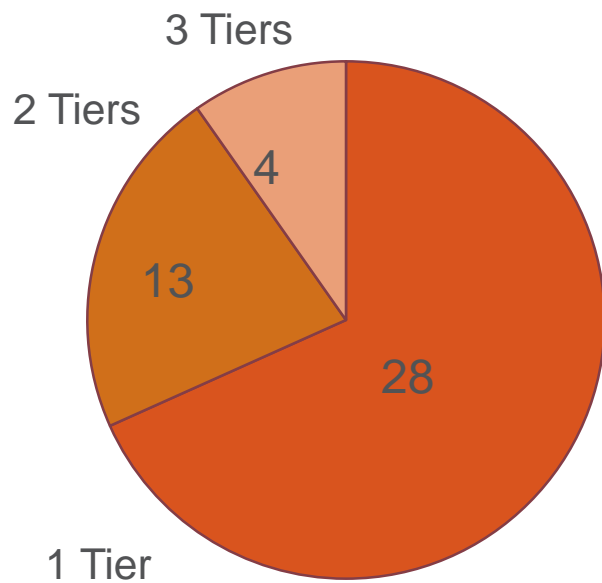
- ▶ Water heaters within residential portfolios
 - Some are part of heating/cooling programs
 - Some are part of appliance/product programs
 - Some are part of whole house programs
- ▶ Consumers remain primary recipient of incentives
 - Mail-in rebates are most common form of incentive
- ▶ Various additional requirements beyond efficiency
 - Contractor qualifications and networks
 - Installation considerations or guidelines

Consumer Education

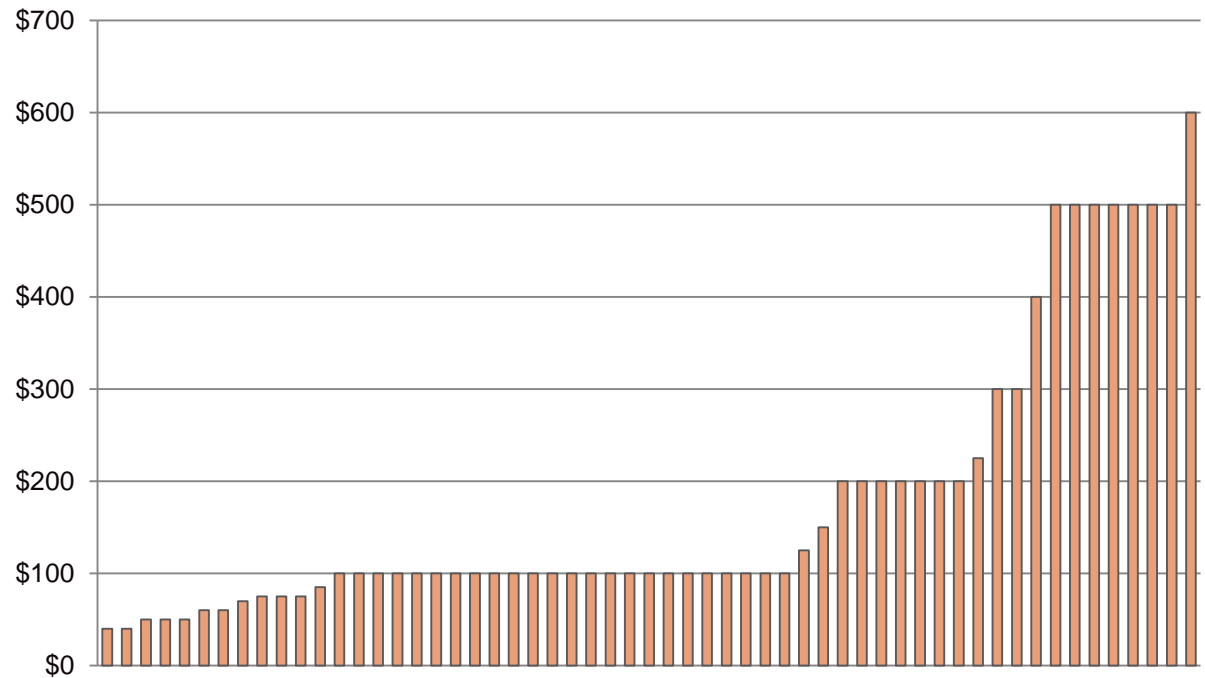
- ▶ Most programs offer educational tips, guidance, or low-cost/no-cost suggestions
 - Informational websites, tutorials, interaction homes
 - Instructional videos or expert advice
 - Water heating calculators
 - Installer locator or retail locator
 - Seasonal promotions and campaigns
- ▶ Some programs provide success stories, examples of case studies, or local testimonials
- ▶ A few programs promote Do-It-Yourself, offer events/classes, or host guided tours

Gas Storage Programs

41 Programs Total



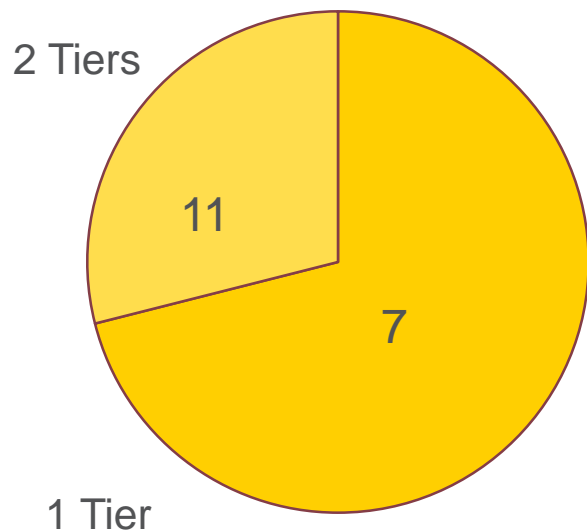
Incentive Levels



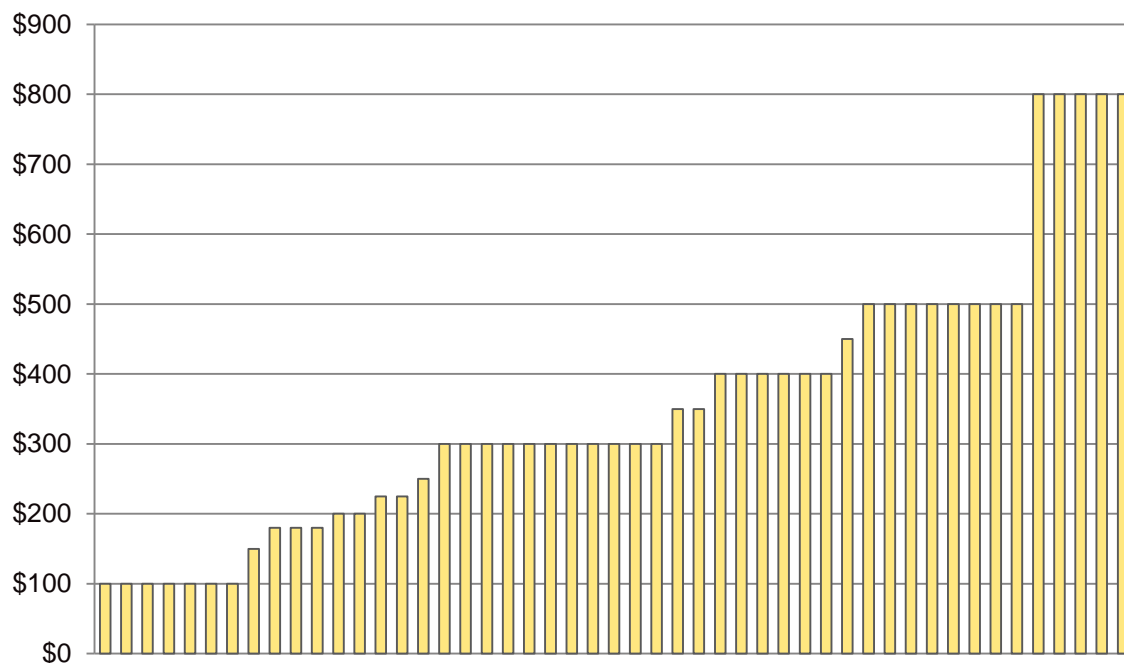
▶ All downstream mail-in rebates to the consumer

Gas Tankless Programs

28 Programs Total



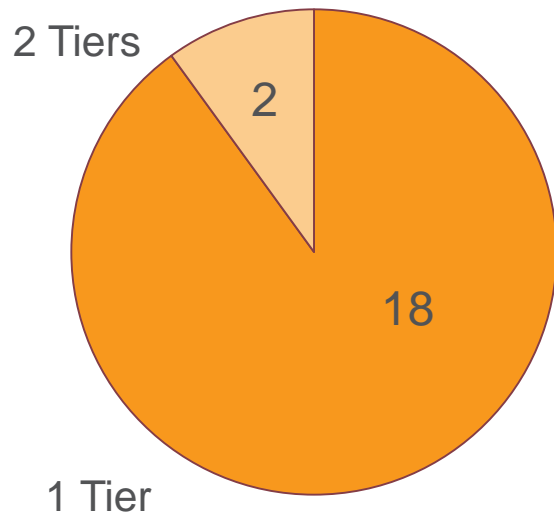
Incentive Levels



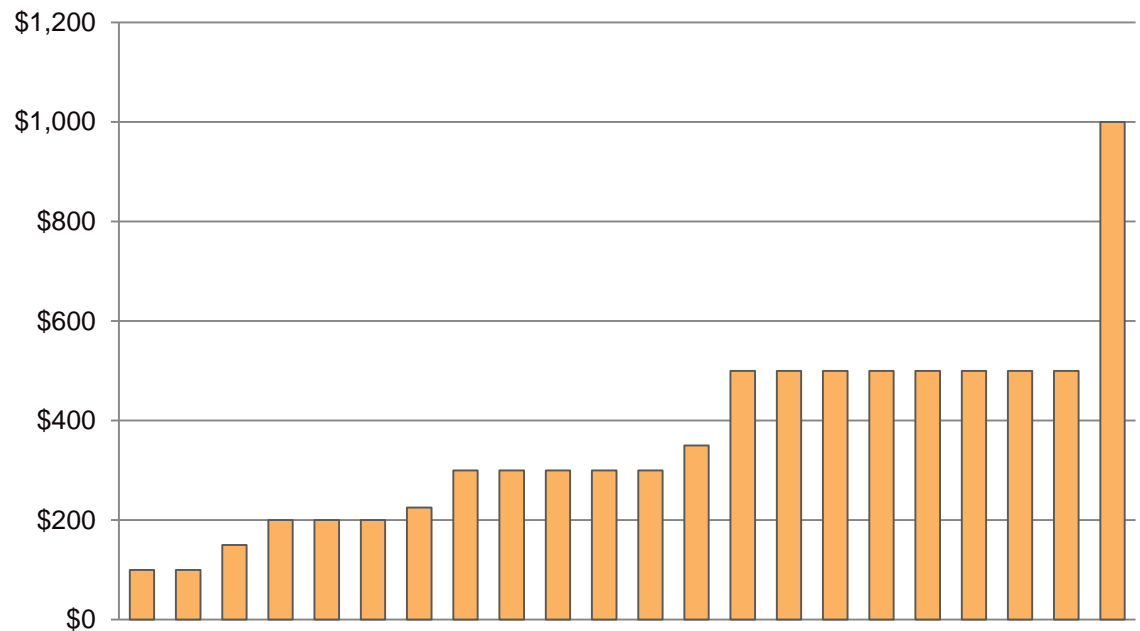
- ▶ Almost all downstream mail-in rebates, some program incentives go to installer or distributor

Gas EPACT Programs

20 Programs Total



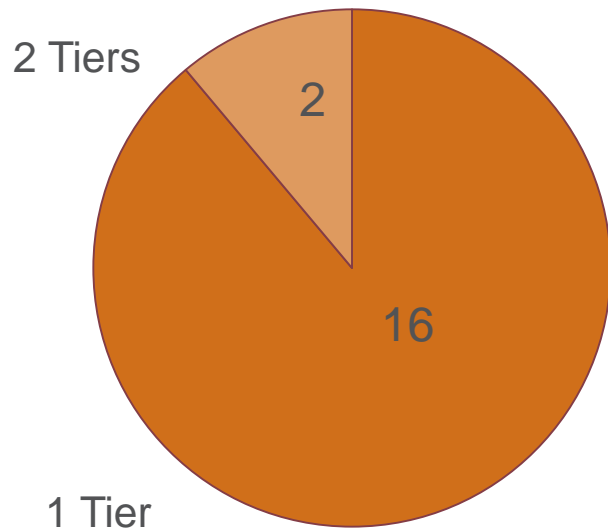
Incentive Levels



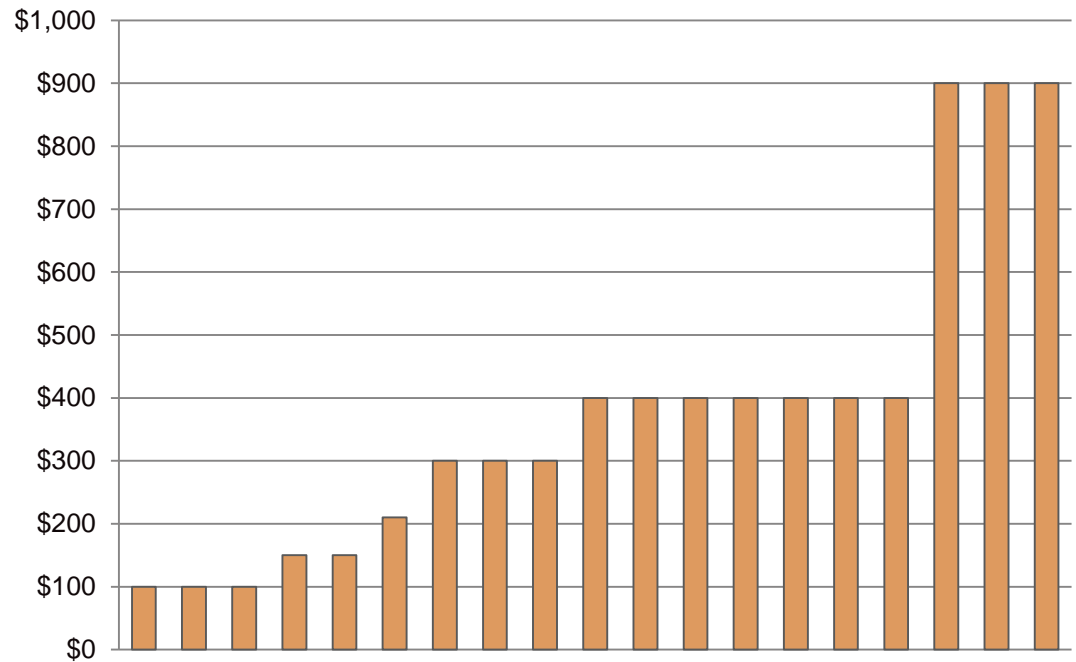
- ▶ Mostly downstream mail-in rebates, one program incentive goes to installer, 3 go to the distributor

Indirect Programs

18 Programs Total



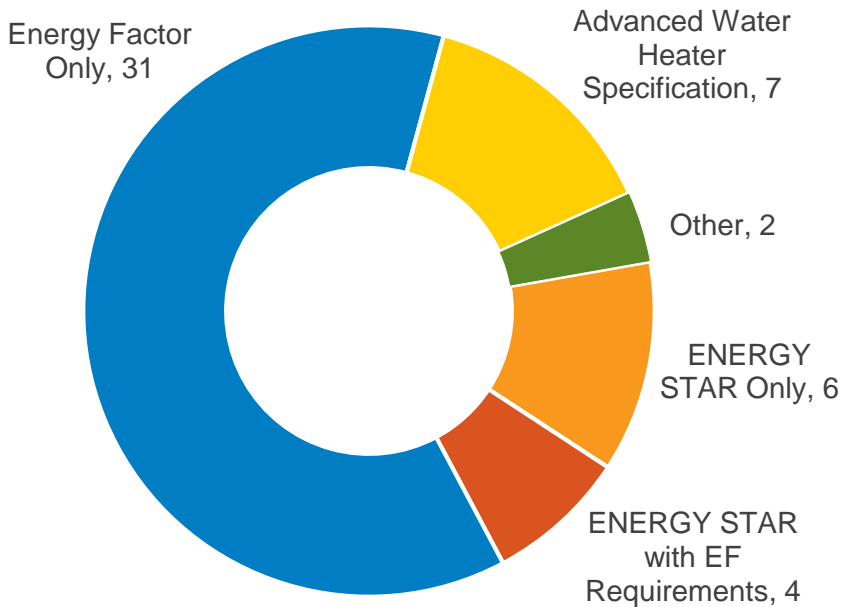
Incentive Levels



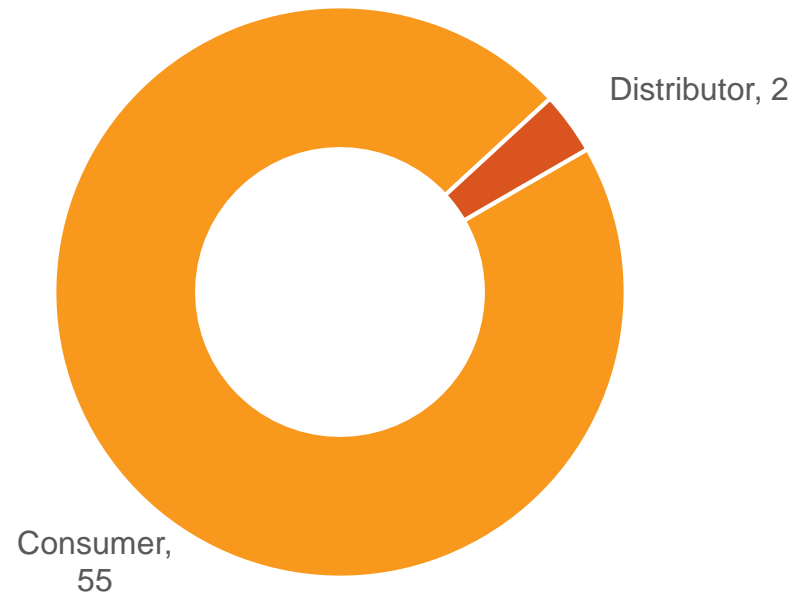
▶ All downstream mail-in rebates to the consumer

Heat Pump Water Heater Programs

Specifications Used

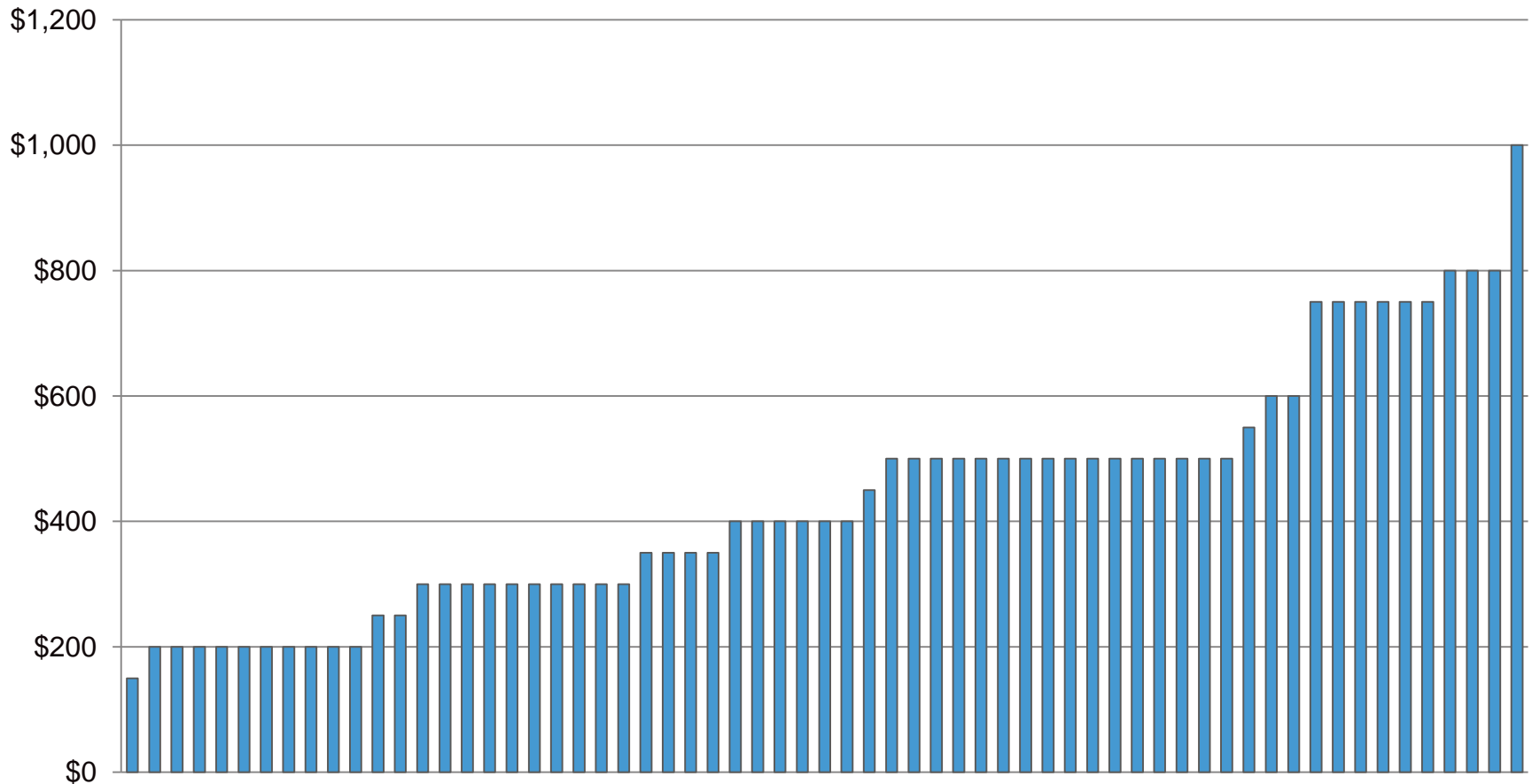


Incentive Recipient



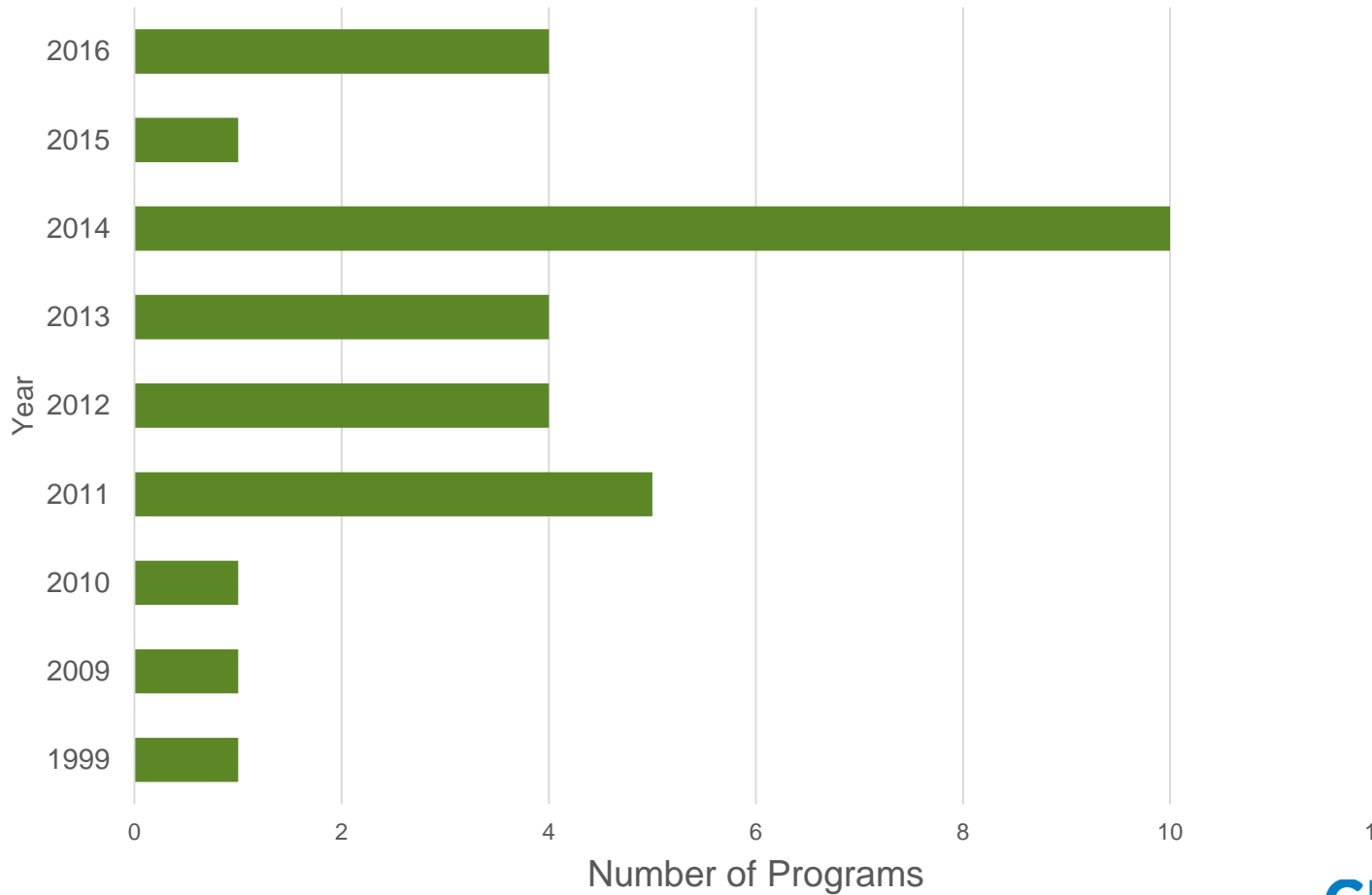
Heat Pump Water Heater Programs

▶ Incentive Levels – 55 Programs Total



Heat Pump Water Heater Programs

▼ Year Program Established

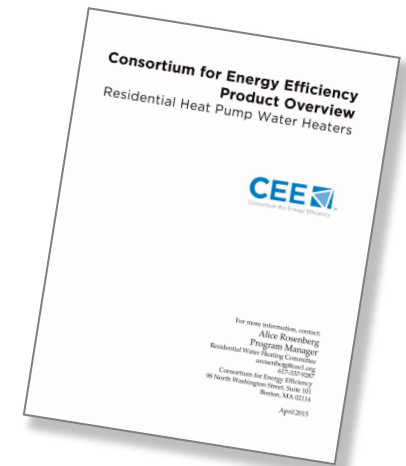


Trends and Themes

- ▶ Residential portfolios are being squeezed for savings
 - Diminishing opportunities in existing measures
 - Increased interest in comprehensive approaches
 - Look towards savings from installation and interaction
- ▶ Uncertainty around regulatory changes and activity
 - Impact of new DOE test procedures
 - Potential shifts in market conditions and products
 - Implications of federal/state/local policy actions
- ▶ Increasing interest to move programs upstream
- ▶ New technologies or opportunities?

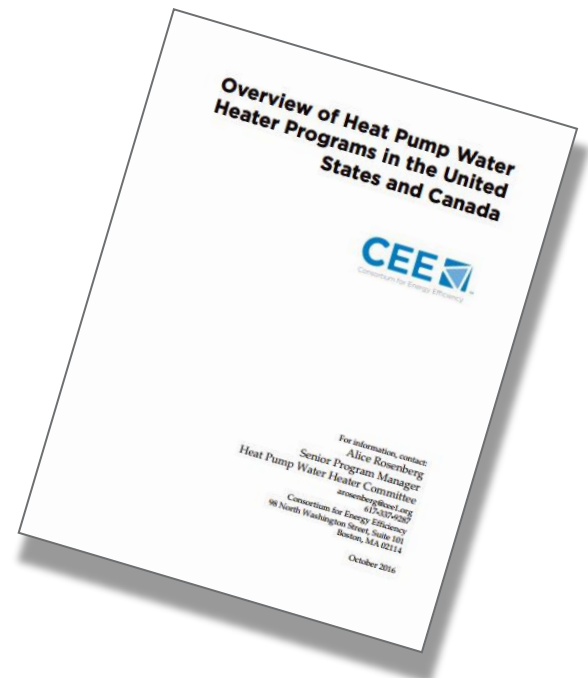
CEE Res Water Heating Initiative

- ▶ Binational strategy to help support member programs advance the res water heating market
- ▶ Identify key efficiency program considerations
- ▶ Develop specifications for:
 - Gas Storage Water Heaters
 - Gas Tankless Water Heaters
 - Heat Pump Water Heaters (NEW)
- ▶ Address installation considerations
- ▶ Focus on strategies for upstream approaches...

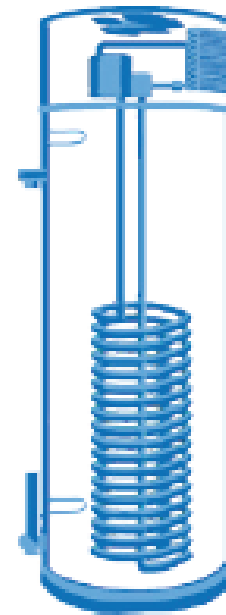
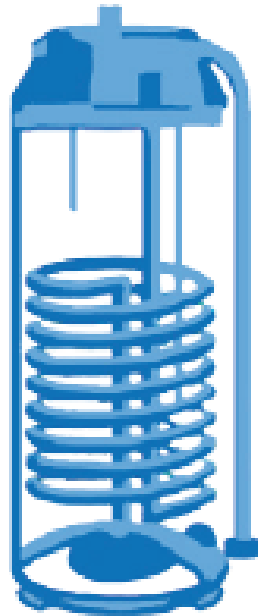


Contact

Alice Rosenberg
Senior Program Manager
617-337-9287
arosenberg@cee1.org



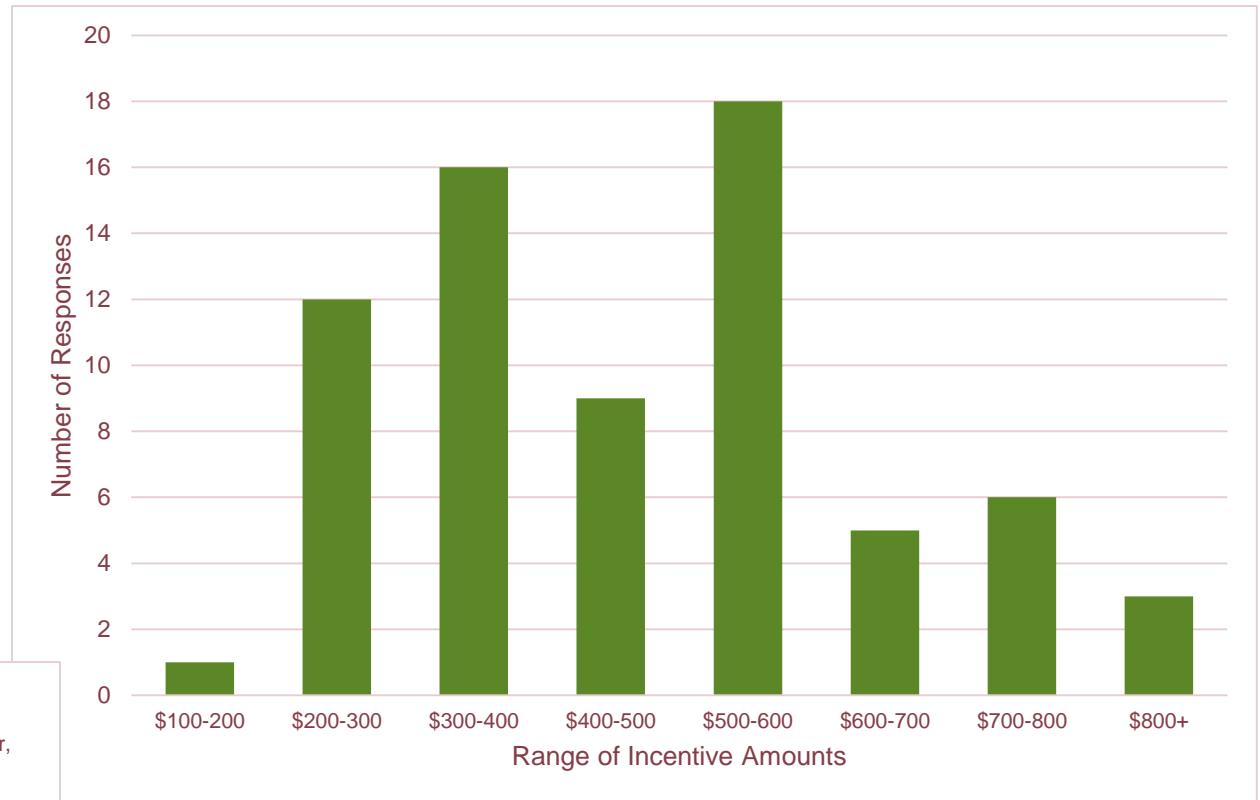
Discussion



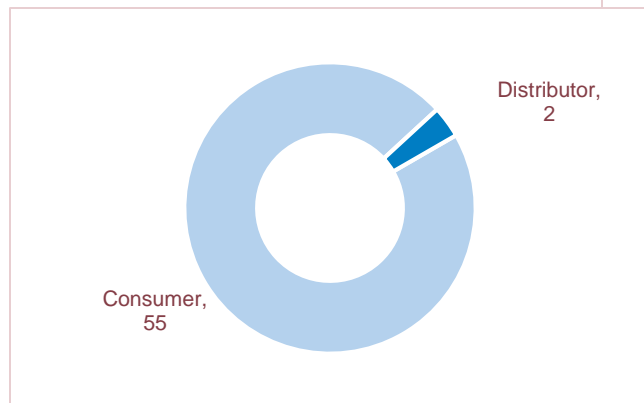
Additional Slides

Heat Pump Water Heater Programs

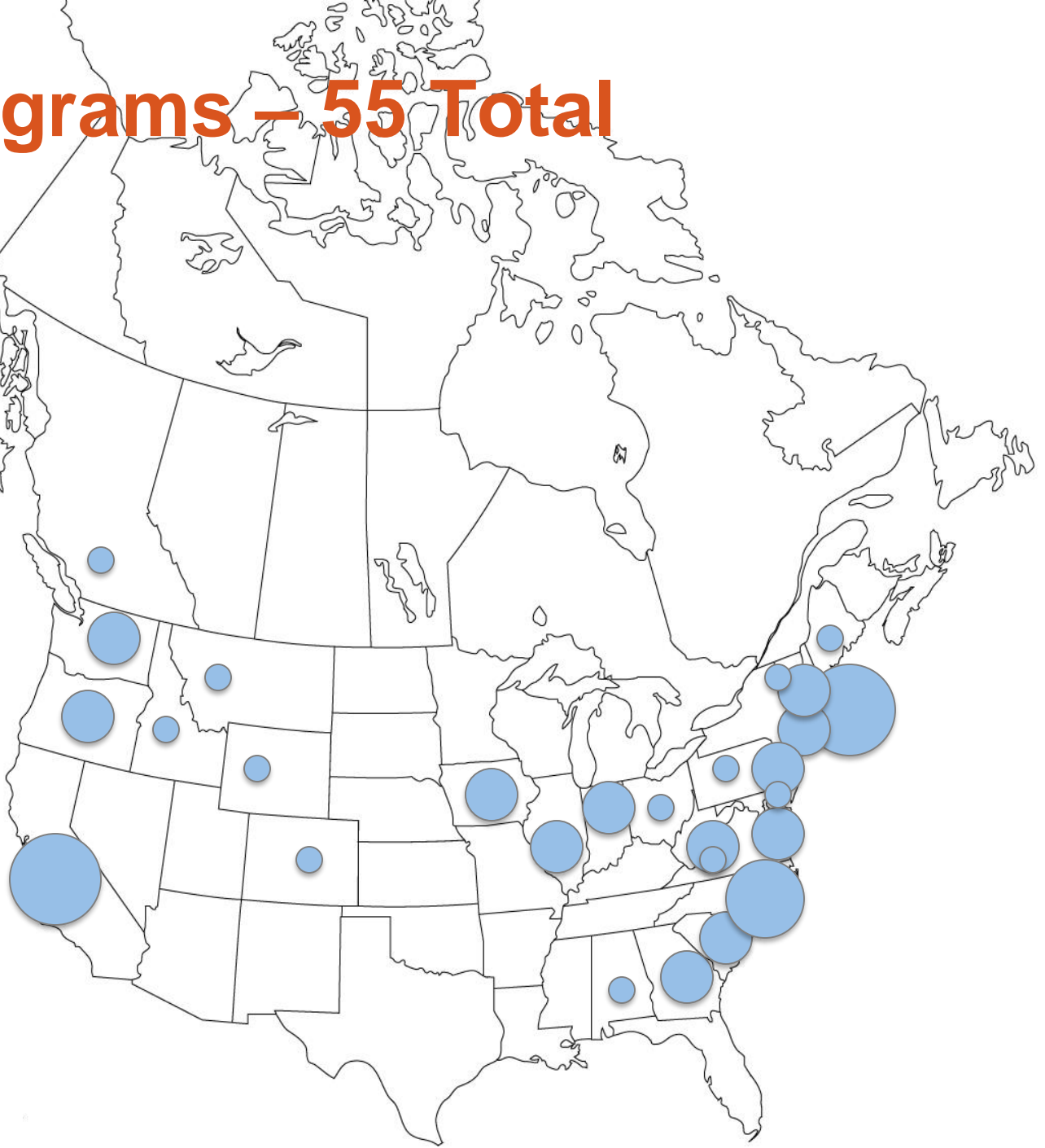
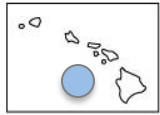
Incentive Amounts



Incentive Recipient



HPWH Programs – 55 Total



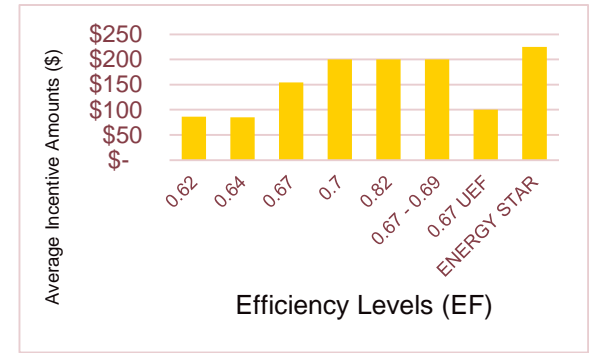
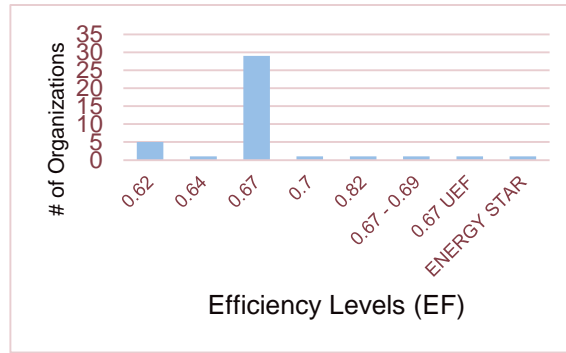
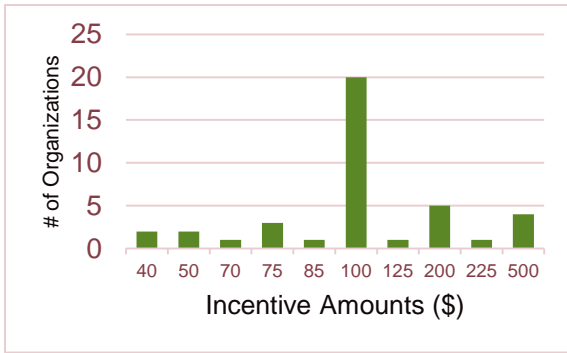
Gas Storage Programs

Incentive Amounts

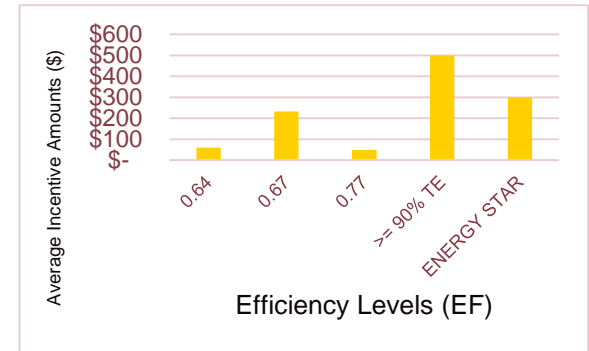
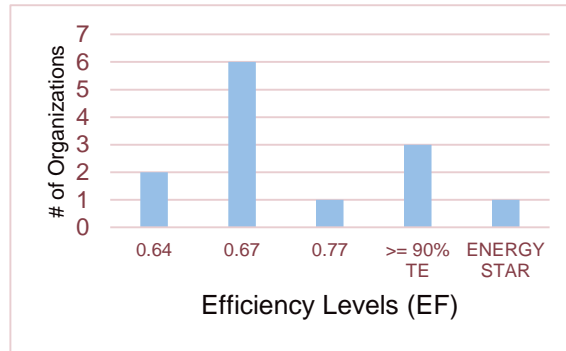
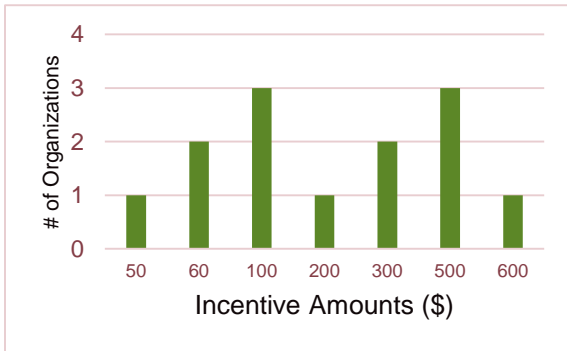
Efficiency Levels

EF and Incentive Amt

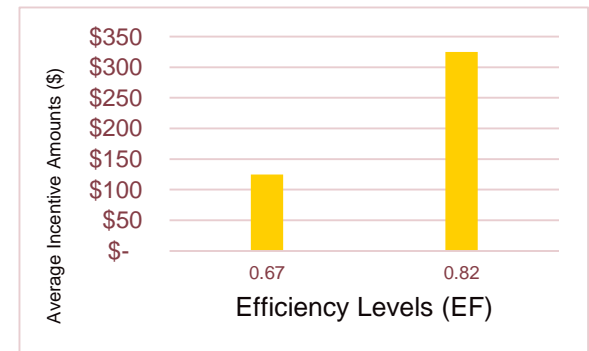
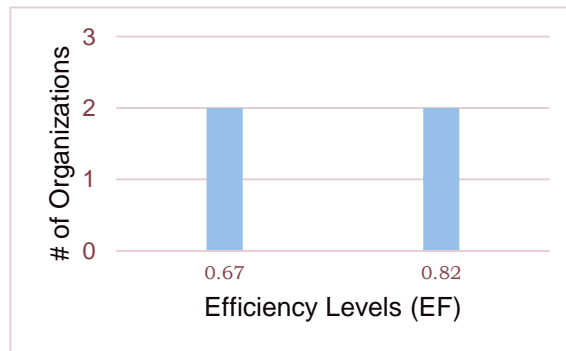
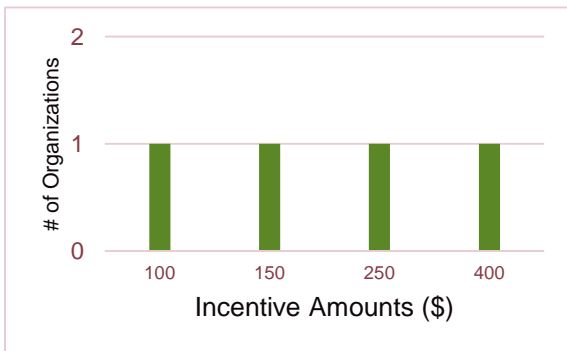
Tier 1



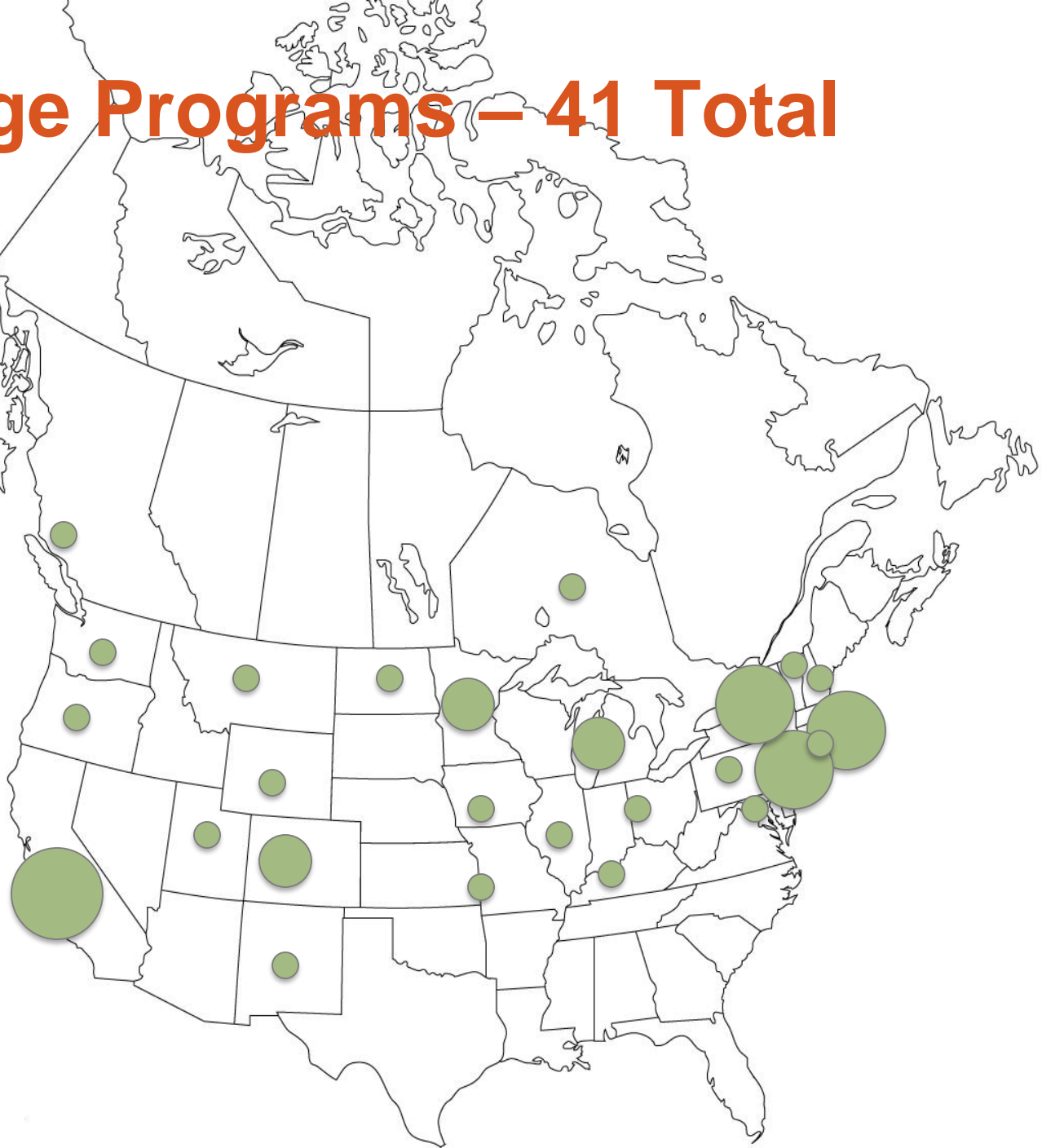
Tier 2



Tier 3



Gas Storage Programs – 41 Total



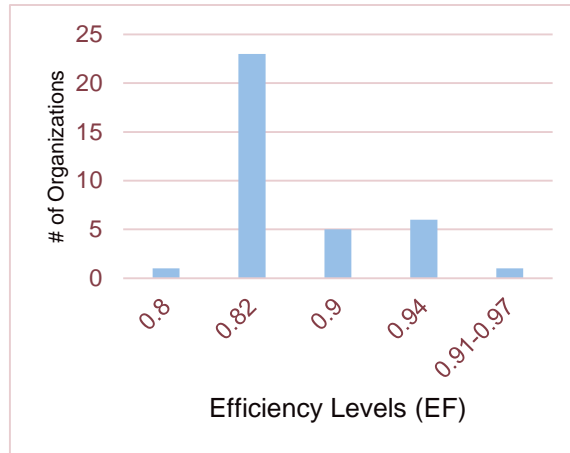
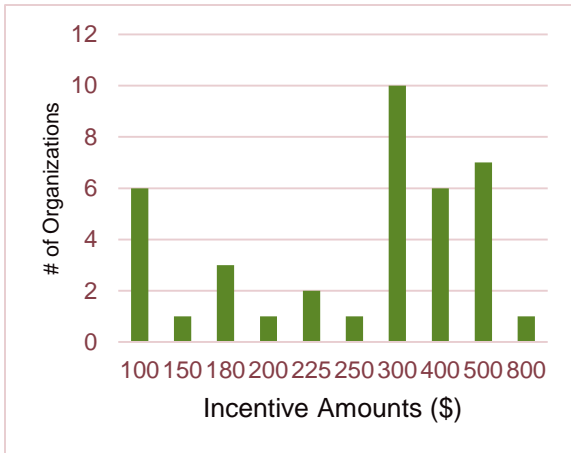
Gas Tankless Programs

Incentive Amounts

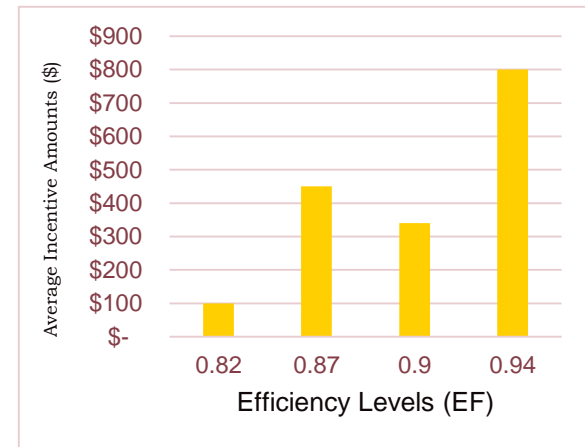
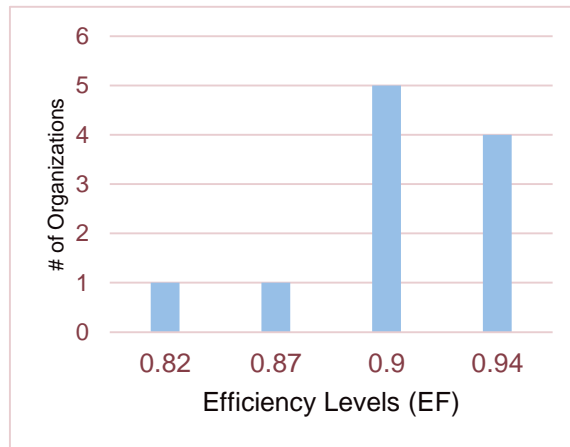
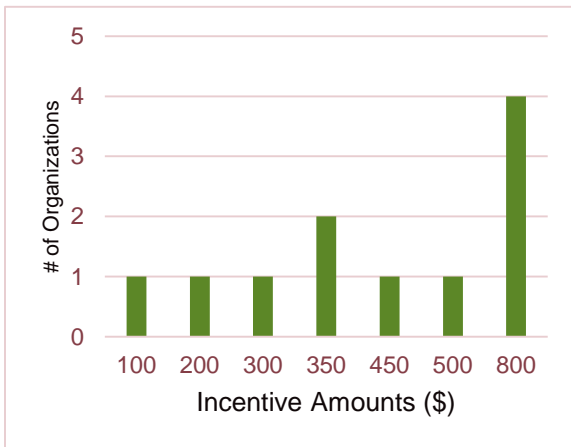
Efficiency Levels

EF and Incentive Amt

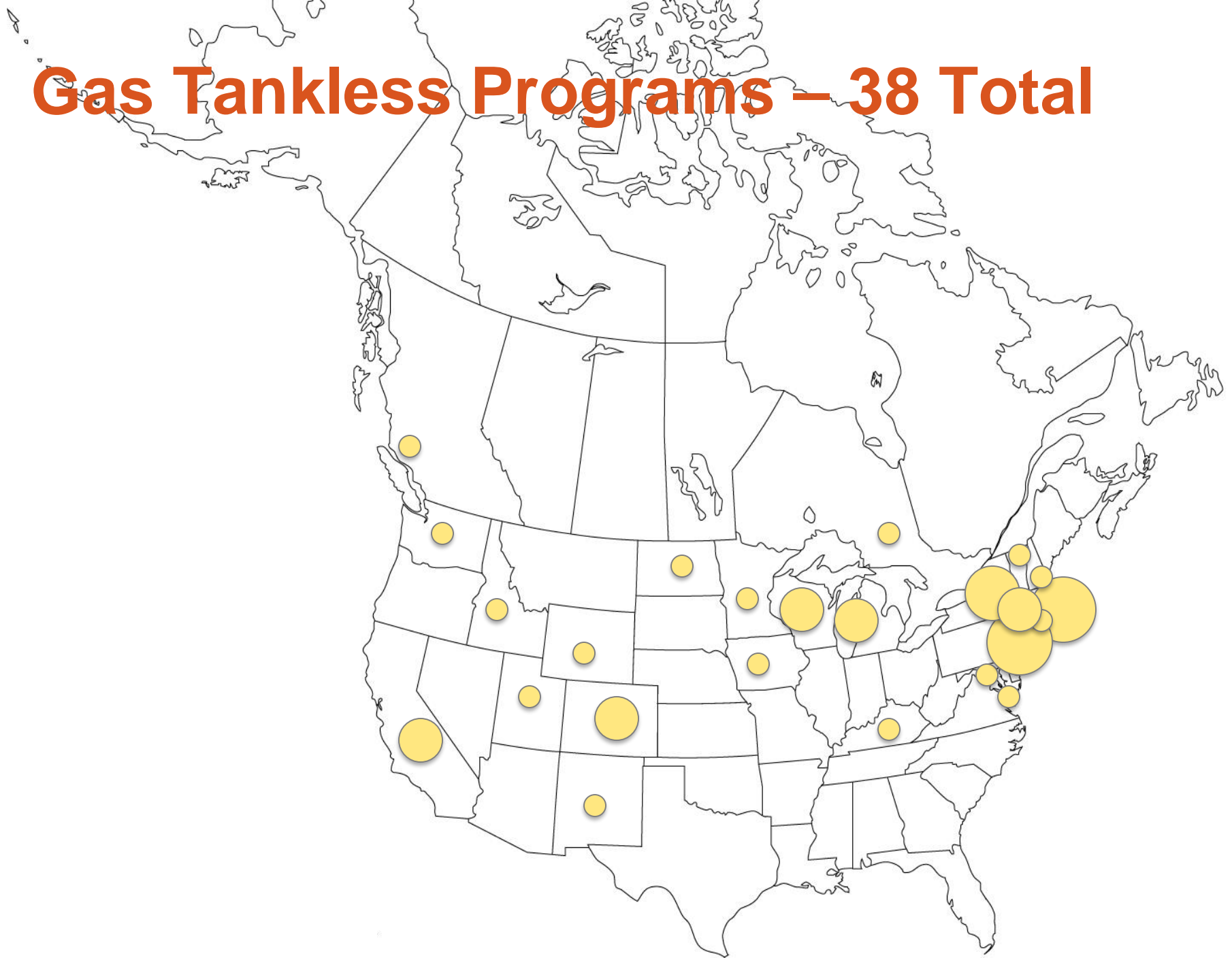
Tier 1



Tier 2



Gas Tankless Programs – 38 Total



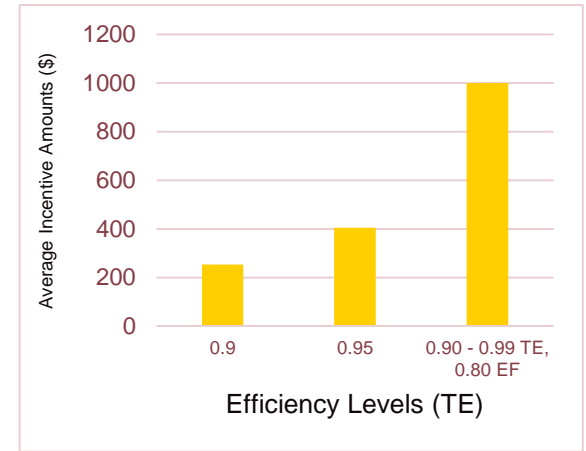
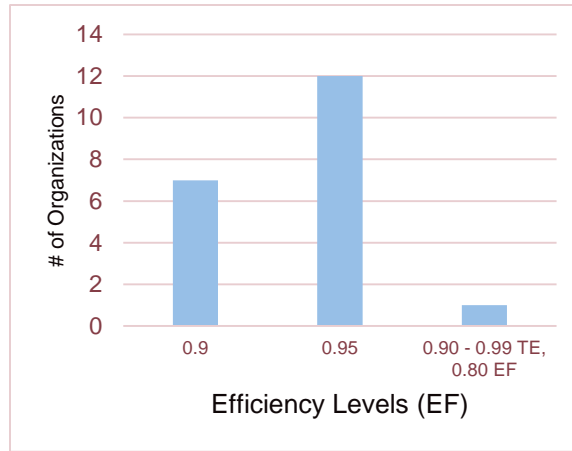
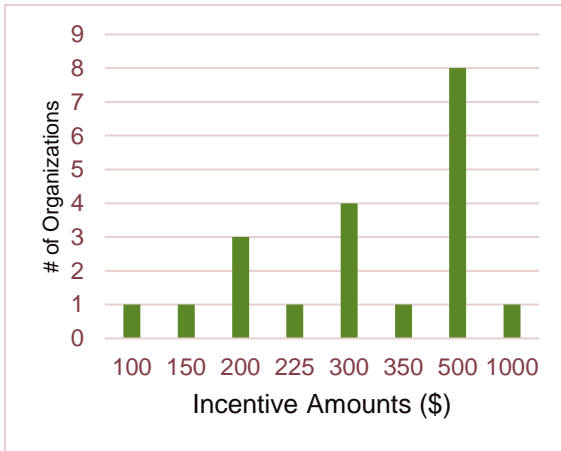
Gas EPACT Programs

Incentive Amounts

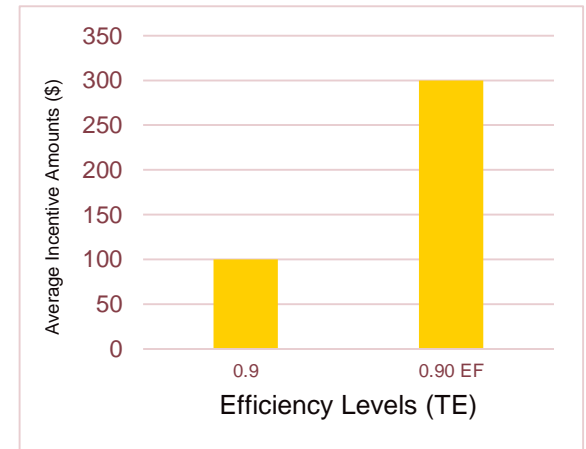
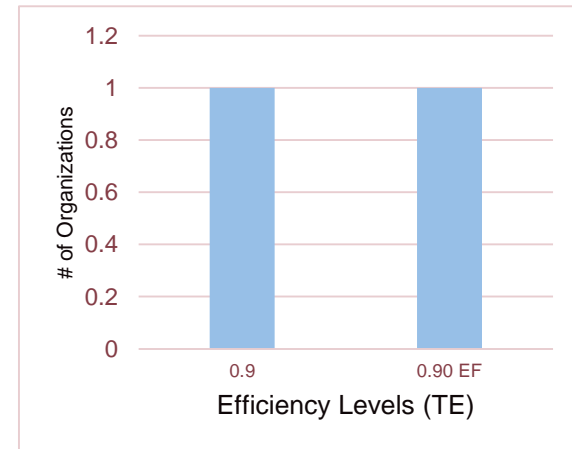
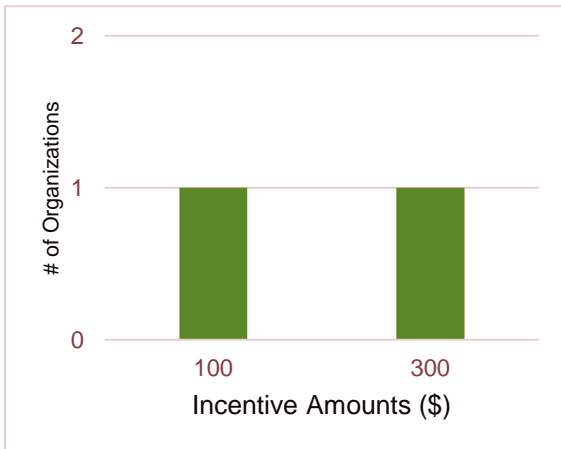
Efficiency Levels

EF and Incentive Amt

Tier 1

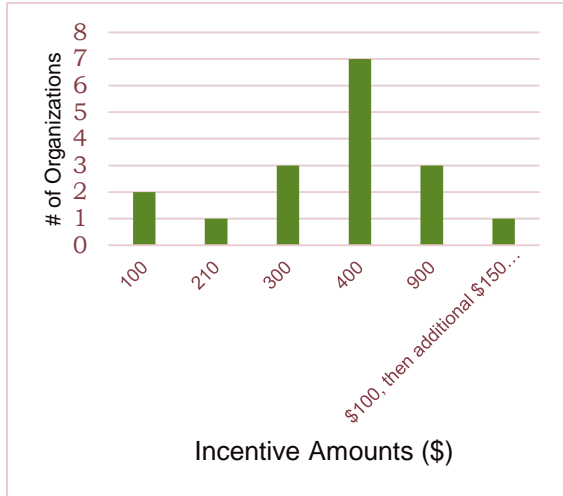


Tier 2

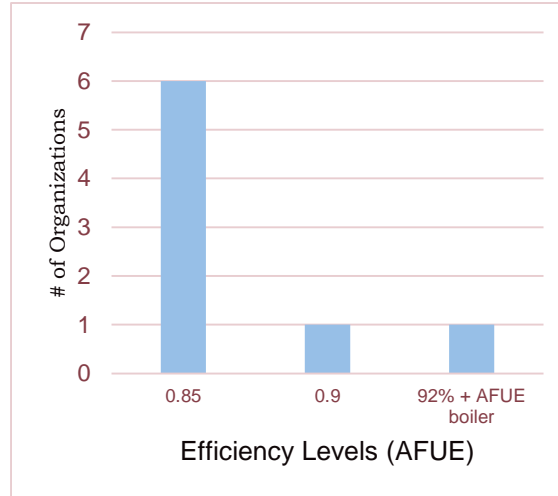


Gas Indirect Programs

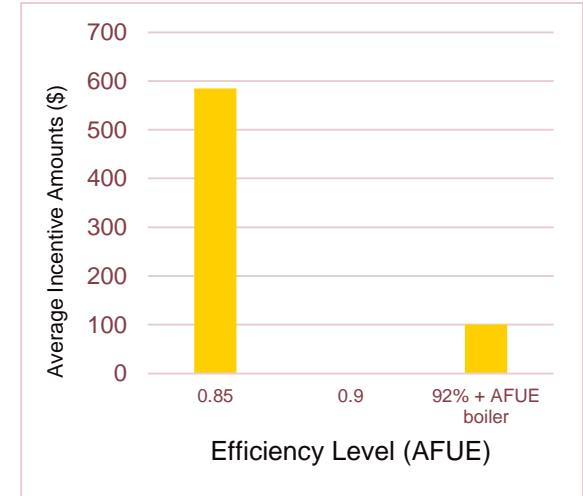
Incentive Amounts



Efficiency Levels



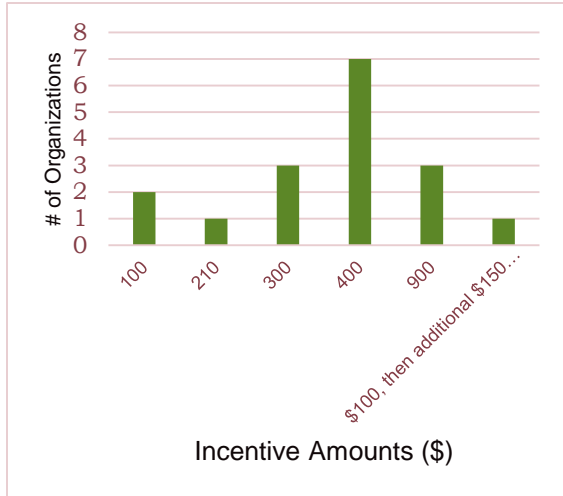
EF and Incentive Amt



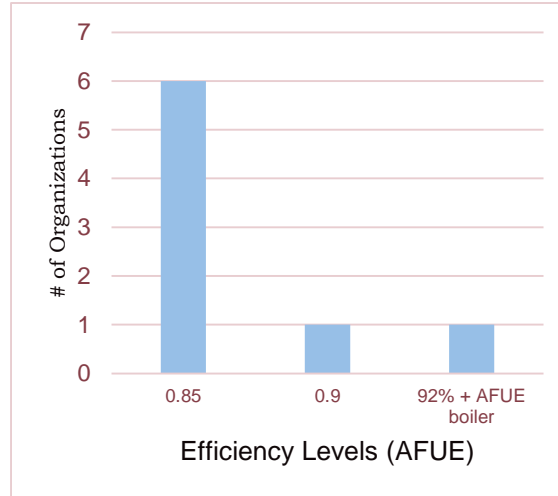
Tier 1

Gas Indirect Programs

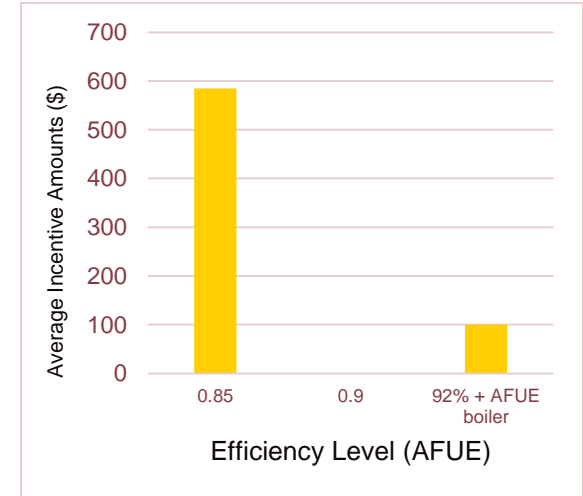
Incentive Amounts



Efficiency Levels



EF and Incentive Amt



Tier 1

Hybrid Programs

