Hot New Initiatives
Reinvigorate Program

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ENERGY STAR Guiding Principles

✓ Significant energy savings on a national basis

✓ Product performance maintained or enhanced with increased efficiency

✓ Consumers recover investment in efficiency within a reasonable period of time

✓ Efficiency can be achieved with one or more technologies from manufacturers

✓ Energy consumption and performance can be measured and verified with testing

✓ Labeling effectively differentiates and adds value to products
Why is ENERGY STAR so important to HVAC

• Heating and Cooling costs the average homeowner more than $900 a year – nearly half the home’s total energy bill.*

• If your CAC is more than 12 years old, replacing it with one that has earned the ENERGY STAR could cut your cooling costs by 30%. These savings would prevent 1700 lbs. of greenhouse gas emissions annually *

• If all residential CAC’s and ASHP’s sold in US met current ENERGY STAR standards **
  – Cost savings would be more than $2.4B
  – 29B lbs of annual Ghg emissions prevented = 2.7M cars off the road

*Source: 2019 ENERGY STAR Data Book  **Source: ENERGY STAR Version 5.0 CAC/ASHP specification finalization
## Market Overview - ENERGY STAR Market Penetration

<table>
<thead>
<tr>
<th>Product</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Units (K)</td>
<td>Market Penetration</td>
<td>Units (K)</td>
<td>Market Penetration</td>
</tr>
<tr>
<td>CAC</td>
<td>1,084</td>
<td>24%</td>
<td>1,095</td>
<td>22%</td>
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<td></td>
<td></td>
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<td>1,140</td>
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<td>1,502</td>
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<tr>
<td>ASHP</td>
<td>888</td>
<td>39%</td>
<td>943</td>
<td>39%</td>
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<td></td>
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<td>1,075</td>
<td>41%</td>
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<td>1,258</td>
<td>43%</td>
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Challenges - Opportunities

Cost of equipment and installation can be higher than standard equipment
Follow the experience curve. Price for efficiency will come down as demand for efficiency increases

Limited Effectiveness of Traditional Customer Mail-in Rebates for HVAC Equipment
Encourage shifting rebate incentives to midstream channel and drive greater discounts through supply chain while changing stocking patterns. Support Partners use of pilot programs and encourage peer exchange networks to expand adoption of midstream

Consumer demand is low due to complexity of technologies/market and absence of market push from EPA over the past several years
Enhanced outreach efforts, marketing, social media, partner newsletters and web tools including replacement calculator and consumer guidance, videos, and utilize partners to broaden outreach.
Near Term Objectives for HVAC

- Harness the rising consumer, state, and utility program demand for efficient HVAC, and particularly ASHP’s

- Demonstrate leadership for Partners, manufacturers, and distributors on how to rapidly expand the market for ENERGY STAR ASHP and CAC.
Near Term Objectives for HVAC (cont.)

• Address oversizing, as an effort to increase consumer comfort and contractor excitement about the label
• Help utility programs and consumers identify heat pumps appropriate for their climate
• Introduce connected criteria for Demand Response
• Address barriers to consumer demand and adoption