

DOCKETED

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Filer:	Gabriel Taylor
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CEC HEAT PUMP WORKSHOP

Jason Thomas
April 5, 2022



Committed to solving complex challenges

Healthy Buildings



Smart Cold Chain



ENVIRONMENTAL



~68M
metric tons of GREENHOUSE GAS EMISSIONS AVOIDED from products sold and avoided food waste in 2020



17%
REDUCTION IN GREENHOUSE GAS EMISSIONS since 2015



44%
REDUCTION IN WATER CONSUMPTION since 2015



23%
REDUCTION IN HAZARDOUS WASTE GENERATION since 2015



94%
Nonhazardous WASTE RECYCLED in 2020



REDUCE OUR CUSTOMERS' CARBON FOOTPRINT BY MORE THAN

1 GIGATON.

Demand increasing – friction still exists

Carrier

Heat pumps are available

2005 – 

2011 – 13 HSPF



2018 – Capacity -22F



2020 – Service Ease



Homeowner

Replacement Cost



Contractor

Point of Sale

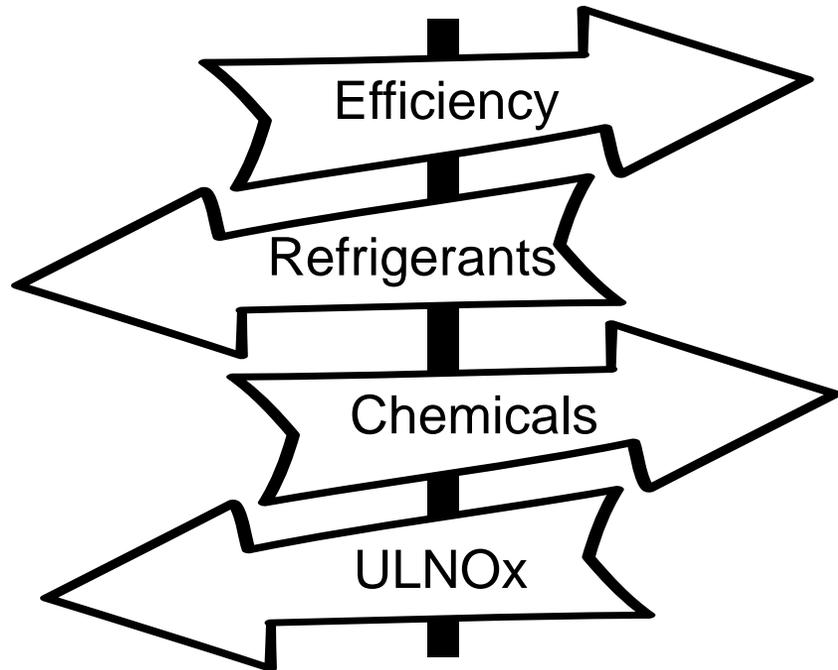


Technician Availability



Challenges to supply ramp up

Regulatory Demands



Manufacturing Capacity



Executing R&D & capital investments to meet market and multiple regulatory demands

We can achieve this goal

Manufacturers

- Continue to advance technology – reduce cost
- Increase manufacturing capacity to meet demand
- Contractor training
- Homeowner education

California Government & Regulators – Smooth, predictable demand curve

- Consideration of short-term supply chain & logistics issues
 - Align regulatory objectives
 - Set compliance dates that account for capacity ramp up lead times
 - Financial support for contractor training and recruitment
 - Financial support for homeowners to offset increase cost
- Consider dual fuel systems – interim step
- Speed up transition
 - Reduce financial support needed
 - Significant environmental savings



THANK YOU