

DOCKETED

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CHANGING HEAT PUMP DEMAND IN CALIFORNIA

Alex Ayers

Director of Government Affairs

HARDI

OUR MISSION

To advocate on behalf of HVACR Wholesale-Distributors so that they may better operate their businesses, serve their partners and employees, and add value to the economy by remaining “The Channel of Choice for HVACR Manufacturers and Contractors.”

DISTRIBUTOR ROLE IN SUPPLY CHAIN

HVACR VALUE CHAIN

MANUFACTURERS

DISTRIBUTORS
HARDI

CONTRACTORS

CONSUMERS

- Distributors play a critical role in the value chain:
 - Primary source of equipment and supplies
 - Knowledgebase
 - Warranties
 - Training

OUR TRADE ASSOCIATION HAS

NEARLY 1,000

MEMBER COMPANIES

OVER 475

ARE U.S. BASED
WHOLESALE
COMPANIES



OF MEMBERS ARE
CLASSIFIED AS

**SMALL
BUSINESSES**

THESE SMALL BUSINESSES
COLLECTIVELY EMPLOY

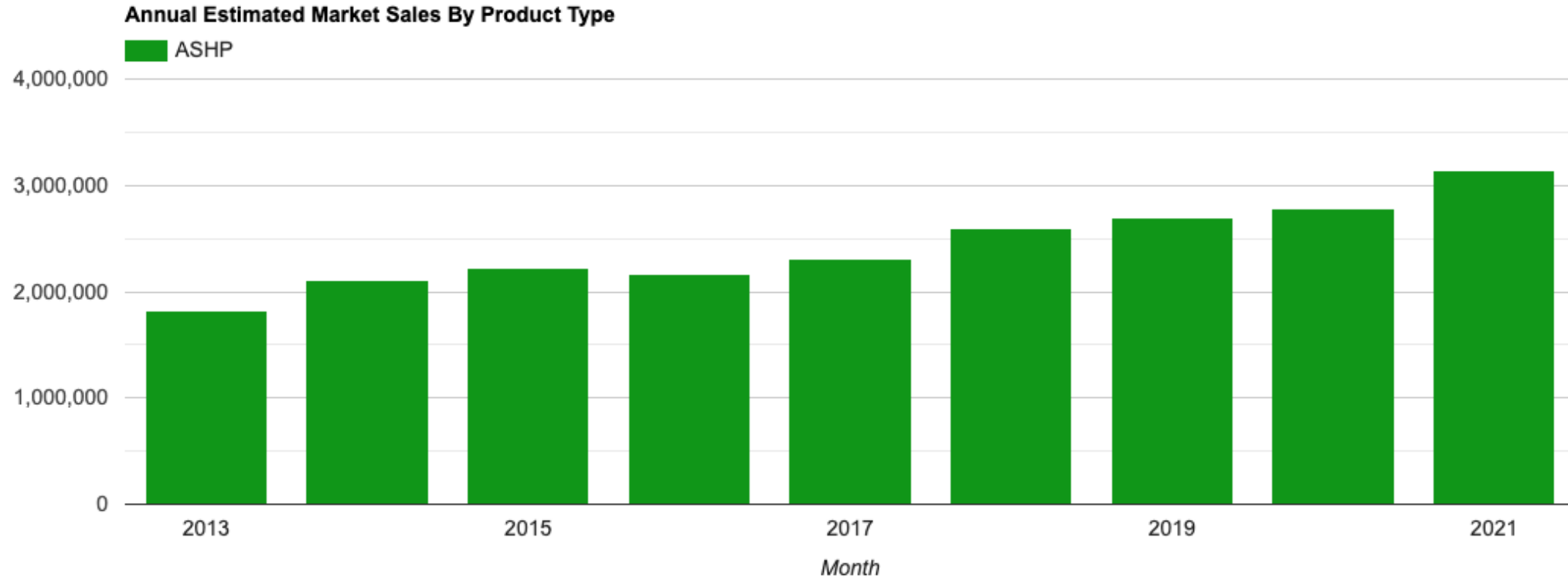
40,000



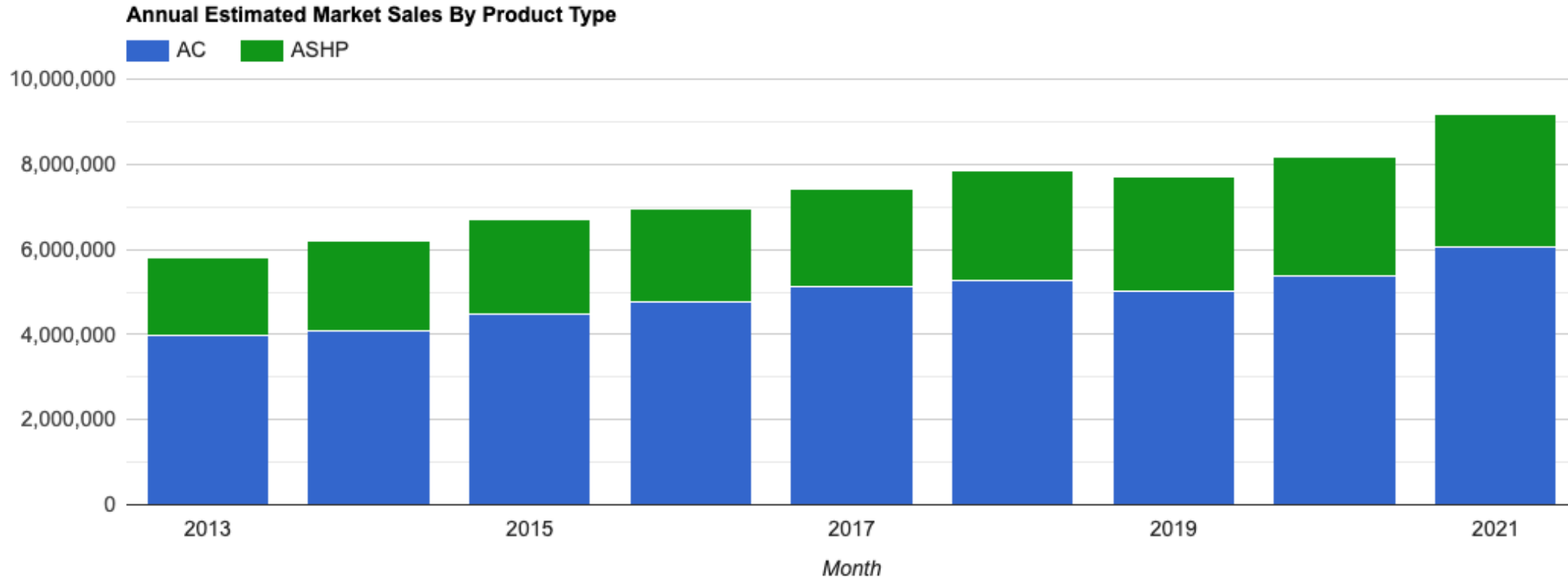
HARD-WORKING AMERICANS

HOW DO CALIFORNIA HEAT PUMP SALES COMPARE TO NATIONWIDE SALES?

RESIDENTIAL HEAT PUMP SALES GROWING NATIONWIDE

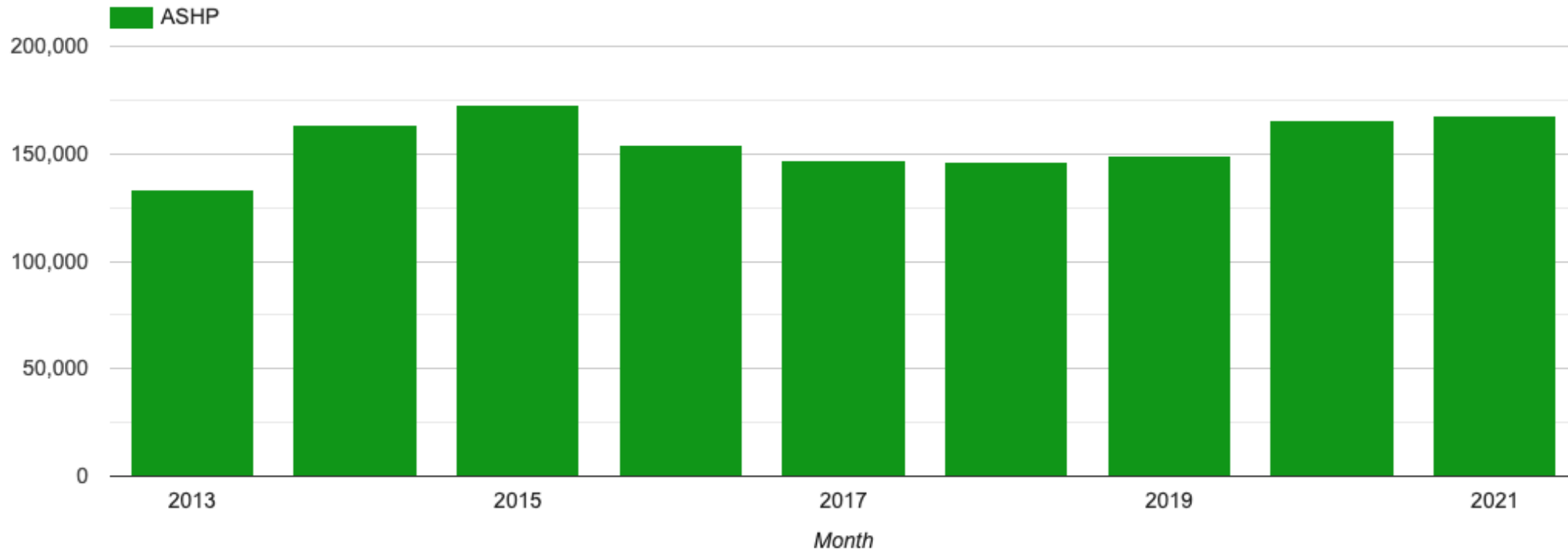


NATIONWIDE HEAT PUMPS ARE GROWING FASTER THAN TRADITIONAL AC



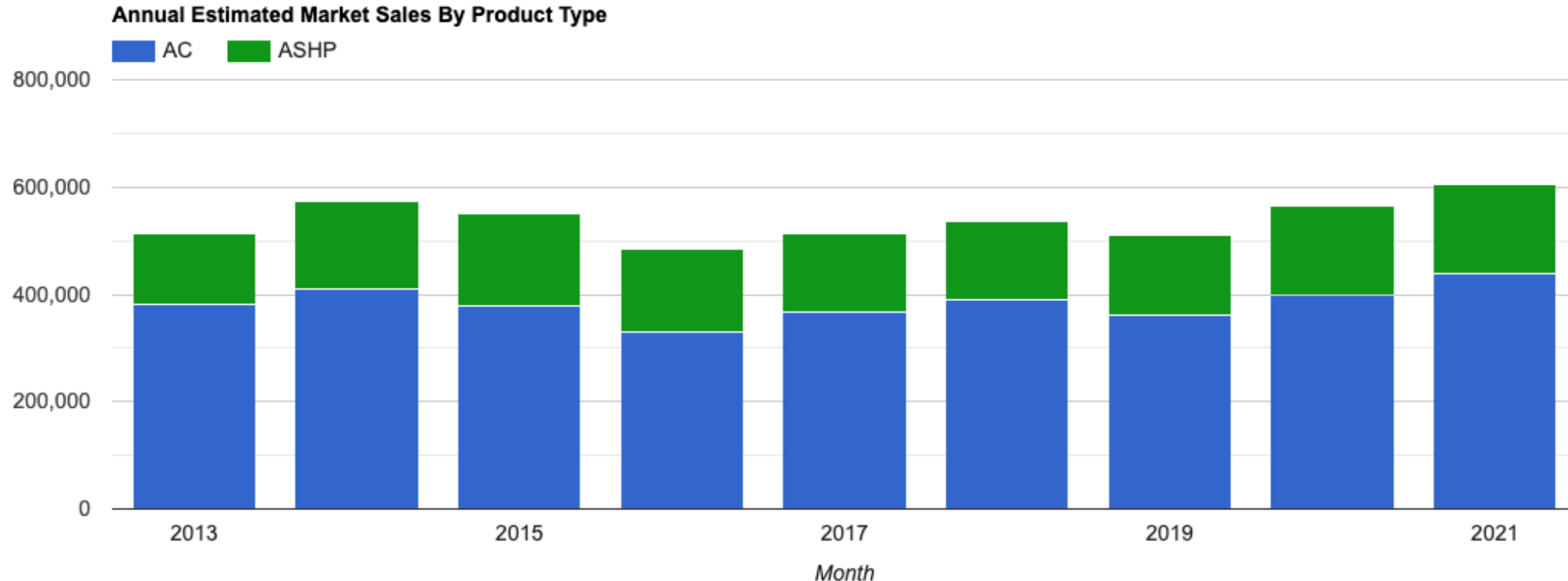
CALIFORNIA RESIDENTIAL HEAT PUMP GROWTH IS SLOWER THAN NATIONWIDE

Annual Estimated Market Sales By Product Type



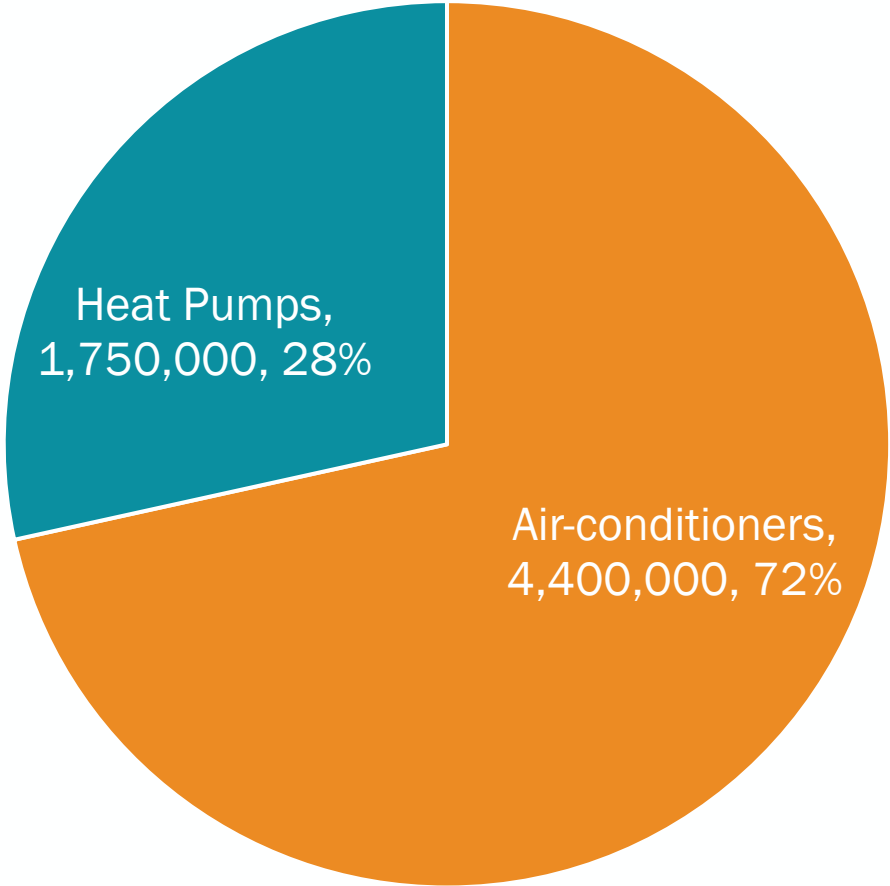
Since 2013, 1.4 million heat pumps have been installed in California, HARDI estimates the installed base of heat pumps to be 1.75 million with a replacement rate of greater than 80,000 expected in 2022, the remaining growth in sales will be for new construction.

TOTAL CALIFORNIA COOLING GROWTH ALSO LOWER



Since 2013 nearly 3.5 million ACs have been installed in California, HARDI estimates the entire installed based to be 4.4 million with 200,000-300,000 replacements sold this year.

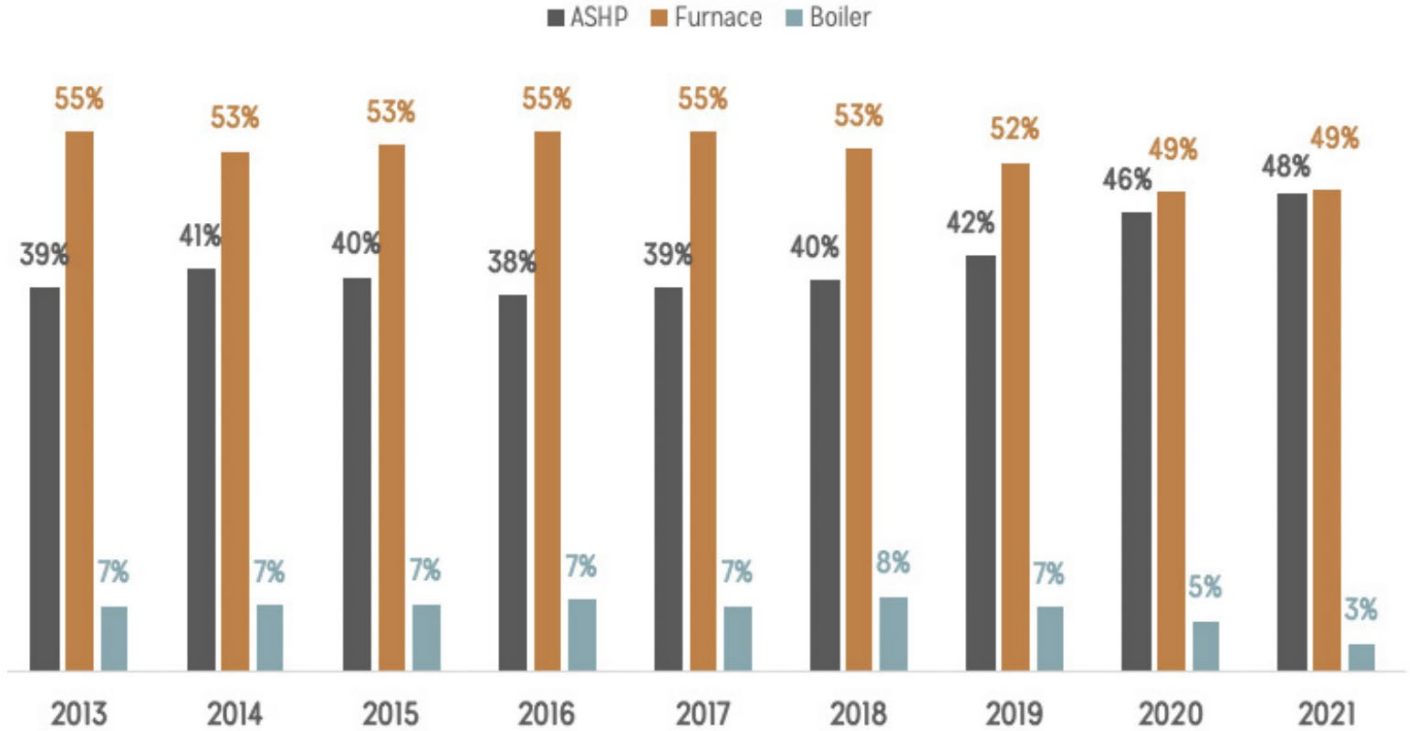
INSTALLED BASE IN CALIFORNIA



TRENDS IN HOME HEATING

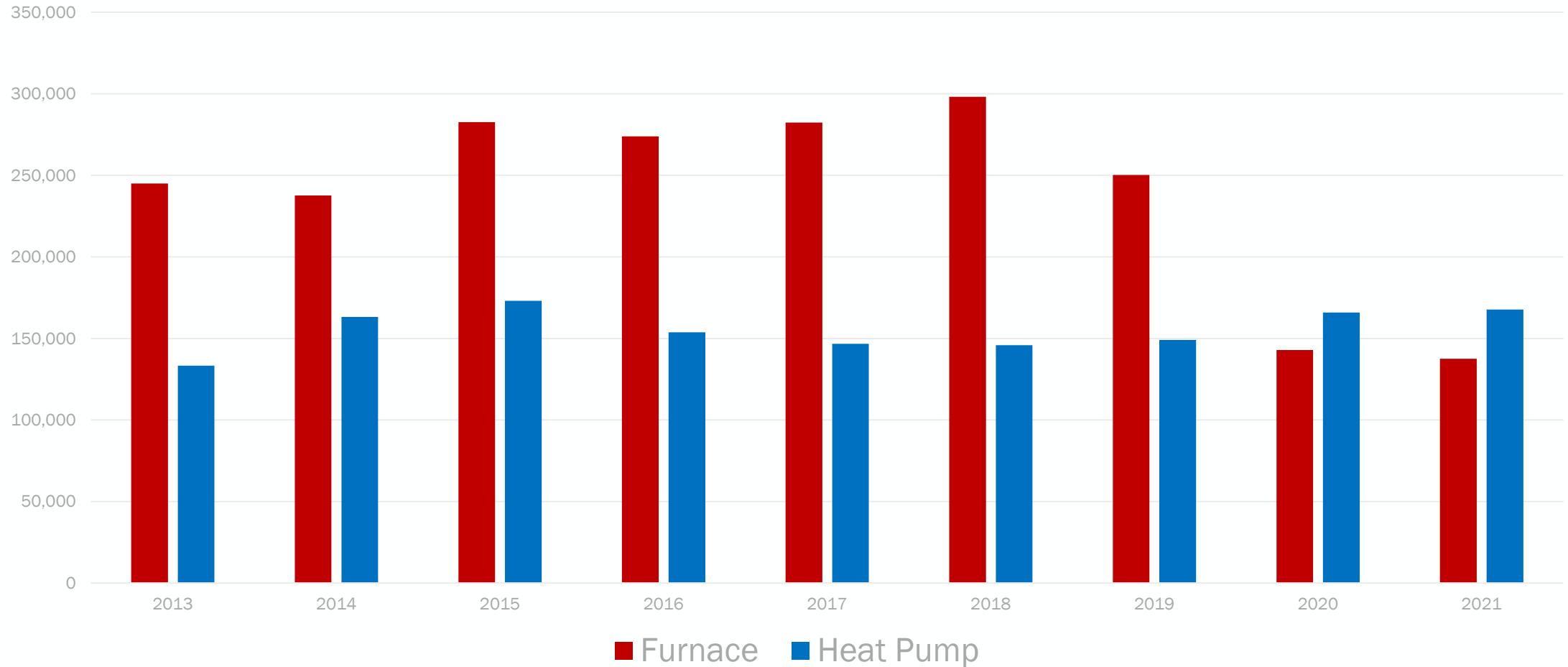
HEAT PUMP SHIPMENTS ALMOST MATCH FURNACE SHIPMENTS NATIONWIDE

Heating Product Mix: Share of Shipments by Year

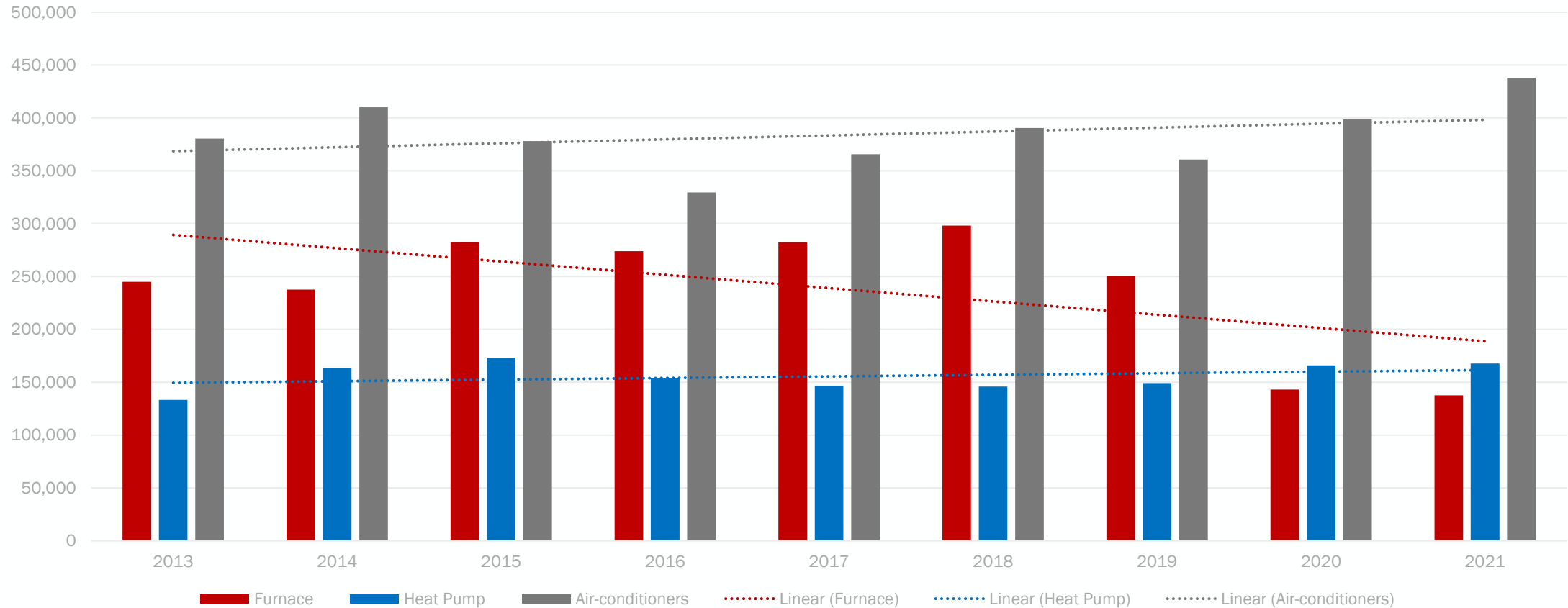


Source: HARDI Unitary Market Report

HEAT PUMP VS FURNACE SALES IN CALIFORNIA



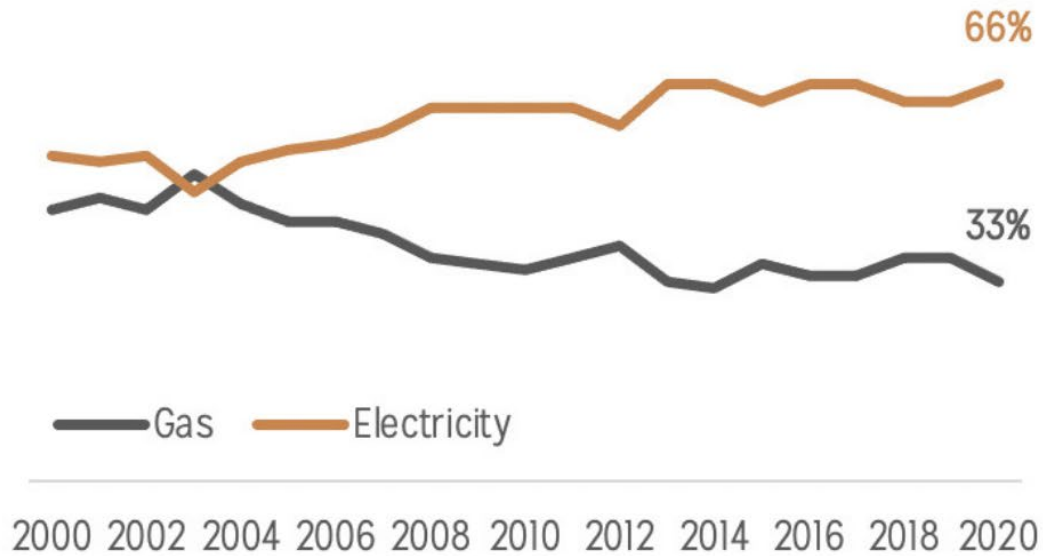
FURNACE REPAIR?



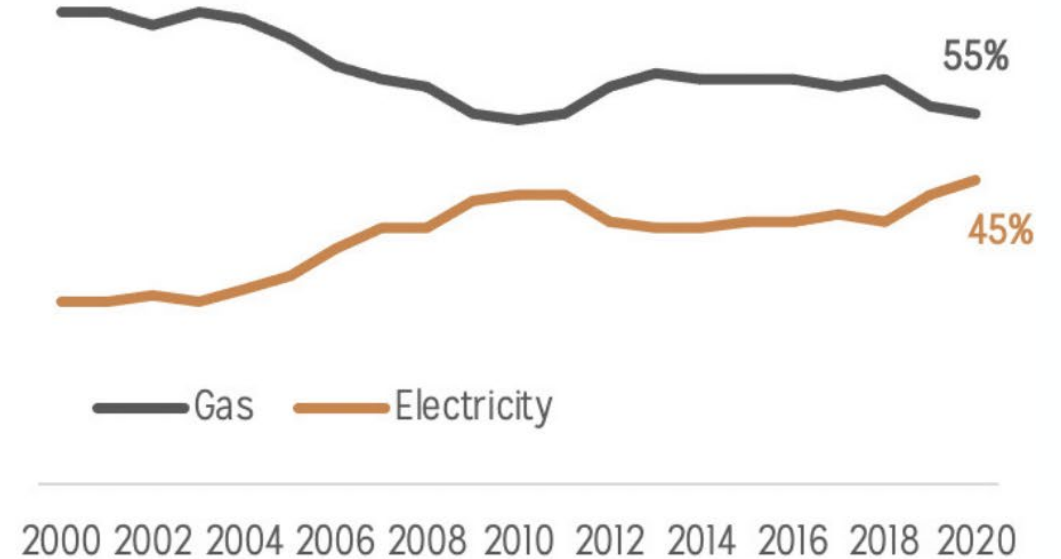
Ultra-low NOx Rules in South Coast and San Juaquin Valley Air Quality Districts likely led to either increased repair rates of existing furnaces or AC with blower only (no heat) in those areas of the state.

MULTI-FAMILY DRIVES HEAT PUMP DEMAND

Residential New Construction:
Heating Fuel in Multi-Unit Buildings



Residential New Construction:
Heating Fuel in Single-Unit Buildings



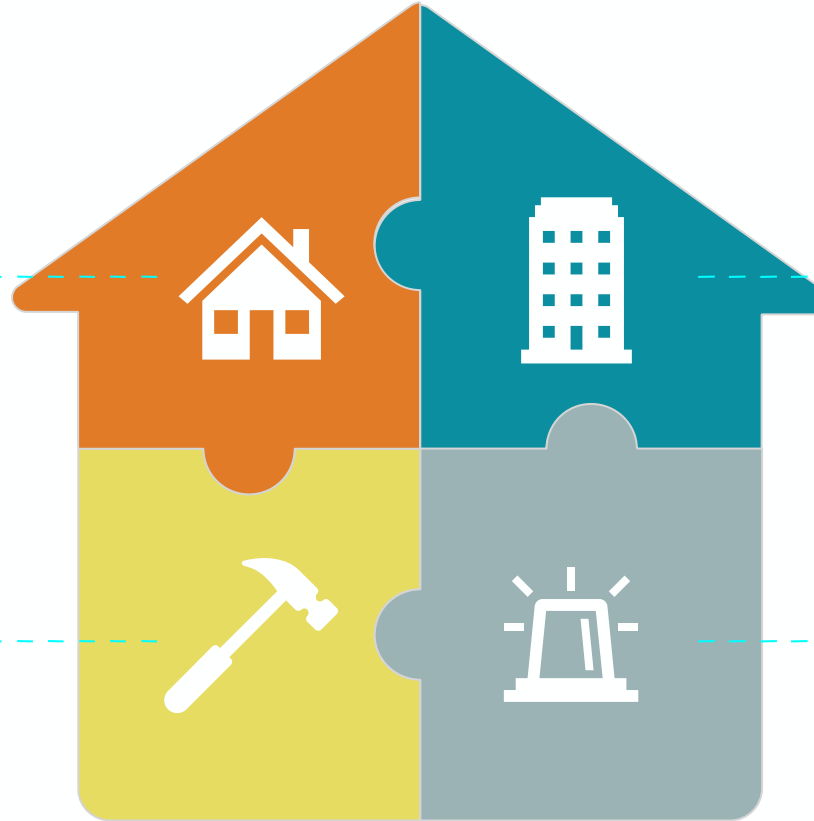
ROLE OF DISTRIBUTION IN HVACR SALES

SOURCES OF RESIDENTIAL HVAC DEMAND

Comfort
driven

**New
Construction**
Single Family Homes

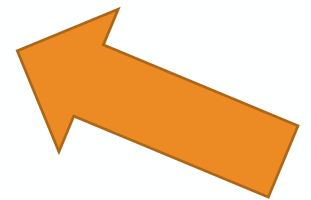
Add-on/Remodel
Additions to or
planned remodels of
existing homes



**New
Construction**
Multi-family Homes

Replacement
Emergency
replacement of
existing equipment

Cost
driven



Largest
demand source

80% of the HVAC residential market comes from add-on/replacement services.

HARDI

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ANNUAL INVENTORY CYCLE RESPONDS TO DEMAND

Spring

Initial
load-in of
inventory

Summer

Mid-
season
restocking

Fall

Late-
season
orders

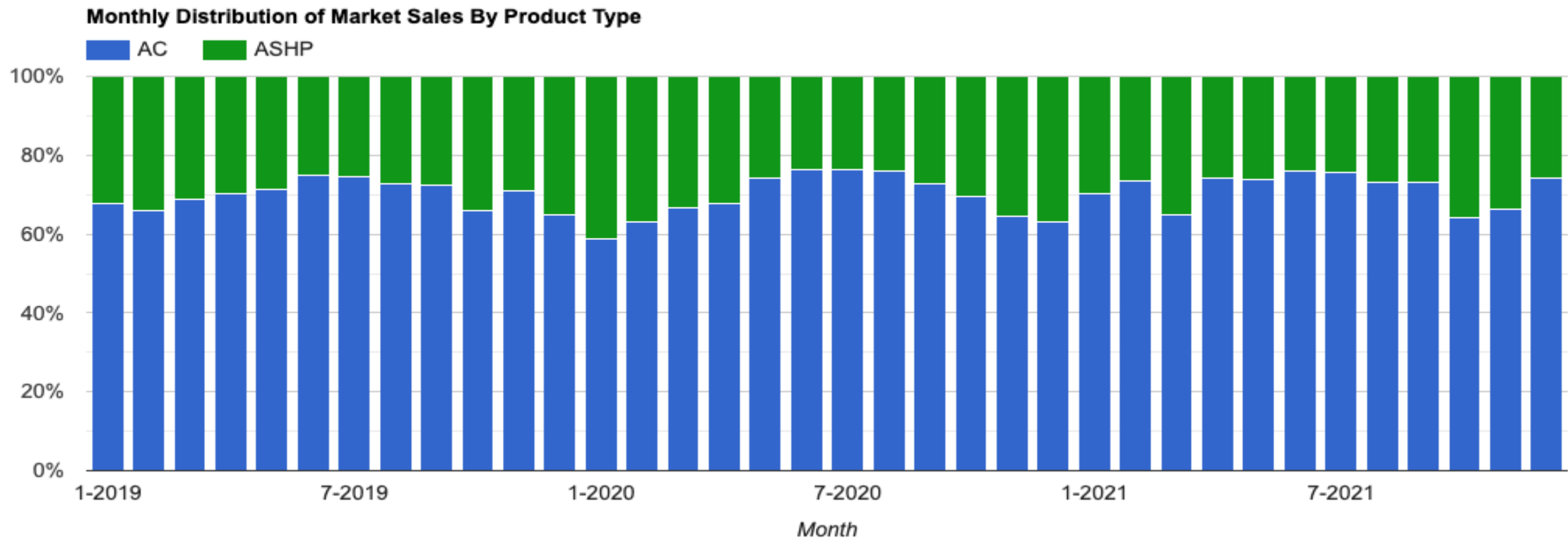
Winter

Sell
remaining
inventory

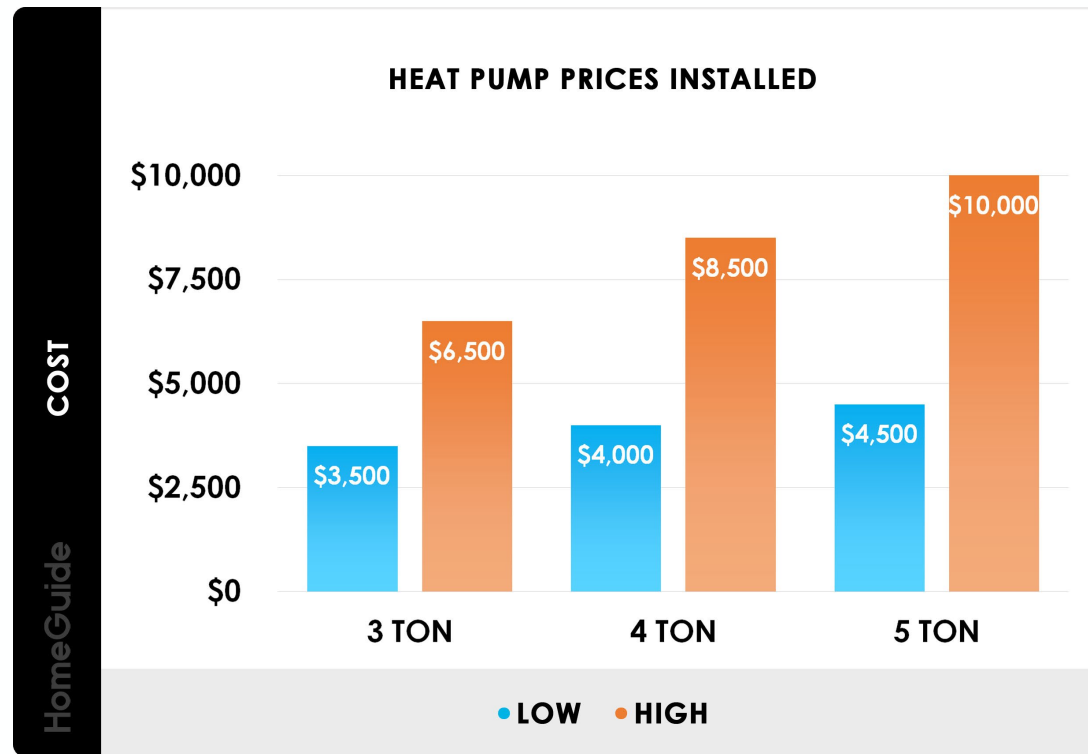


2019-2021 SALES AS PERCENTAGE OF WHOLE

- Heat pump sales increase in off-season months



REPLACEMENT VS NEW CONSTRUCTION



- Price likely plays large part in replacement market, especially in AC only vs whole system replacement
- Higher cost drives down demand for emergency replacement
- Multi-family new construction is driven by economy of scale where it is easier for heat pumps to compete