

HVAC MARKET UPDATE

Market trends facing the Pacific Northwest

Bonneville
POWER ADMINISTRATION



HVAC MARKET TRENDS
TWO RESEARCH ACTIVITIES



HVAC MARKET TRENDS

GOALS OF OUR STUDY

Identify New
Market Trends



Confirm Market
Structure

Understand
Purchasing
Decisions

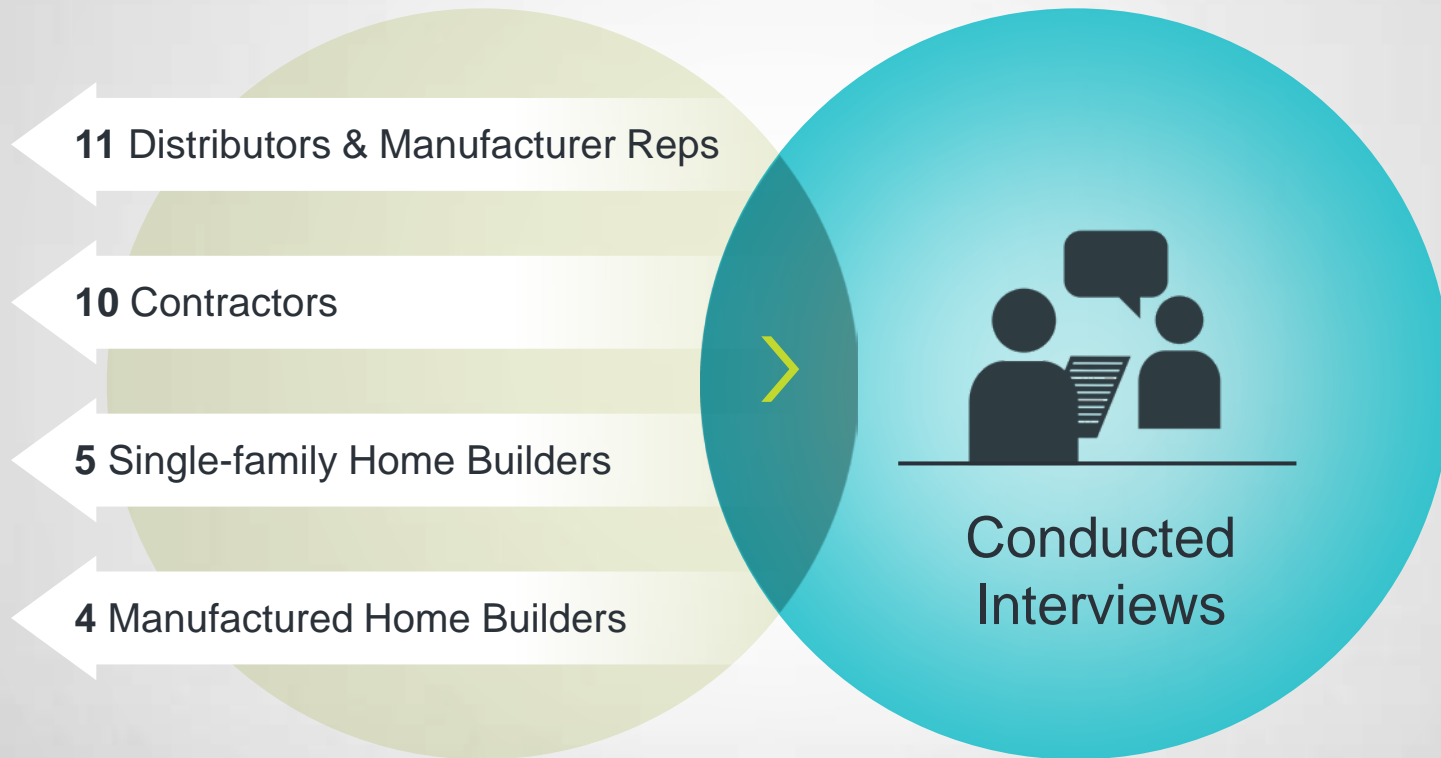


Observe
Growth/Decline of
Technologies

RESEARCH ACTIVITIES
AHR EXPO 2018



RESEARCH ACTIVITIES
MARKET ACTOR INTERVIEWS



30 TOTAL

HVAC MARKET MOVING TOWARD EFFICIENCY

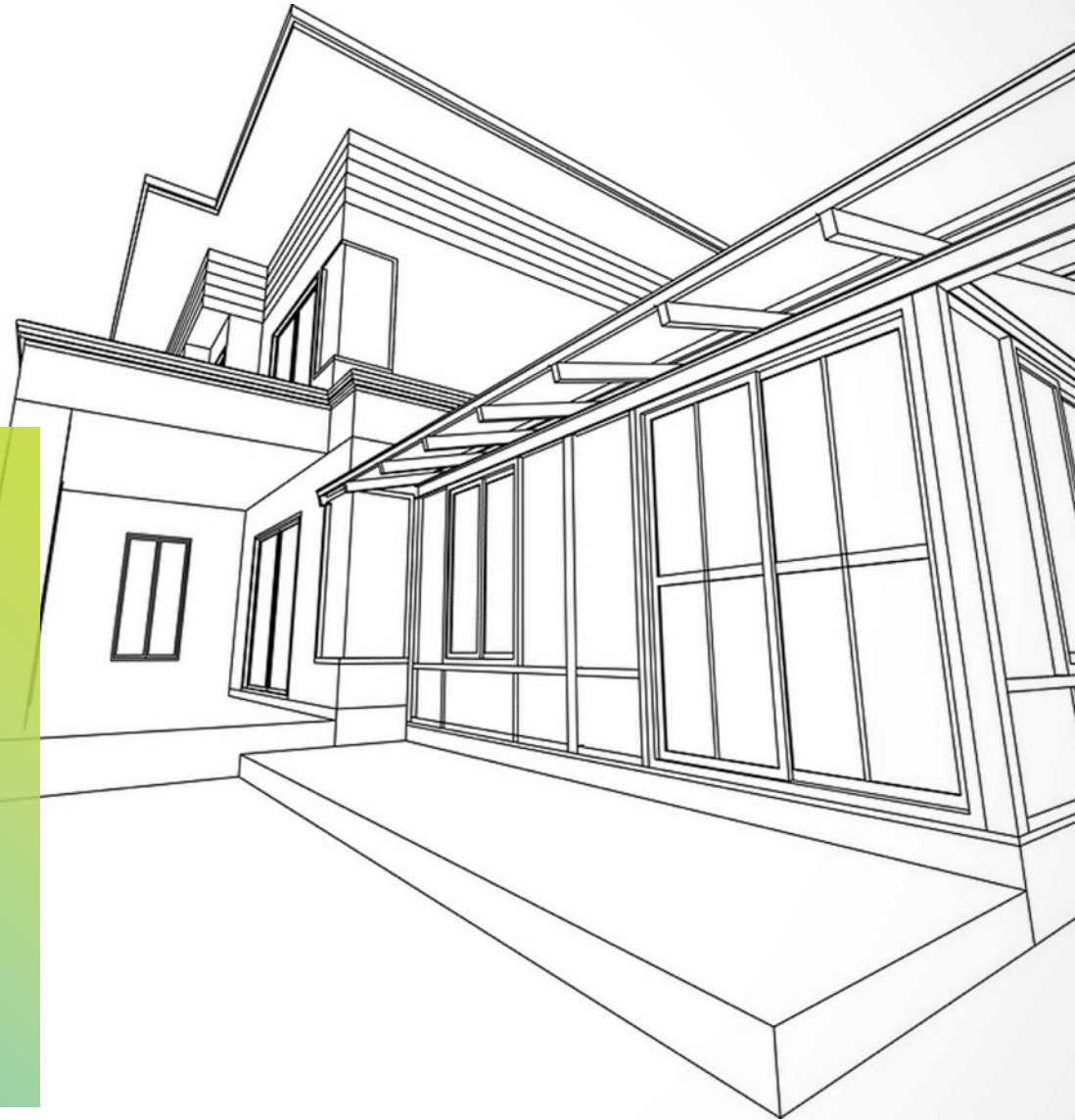
A BALANCING ACT

FINDING #

1

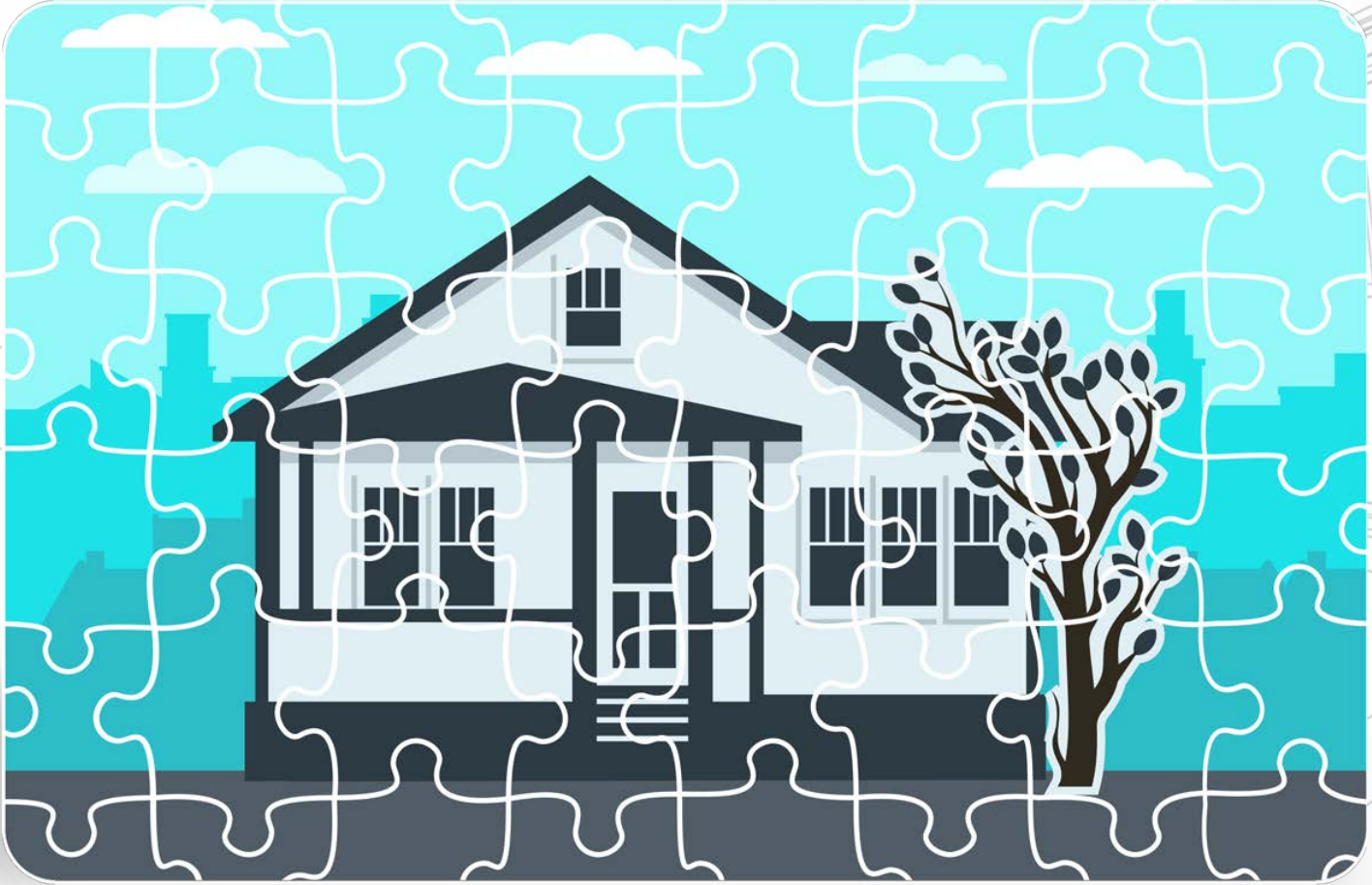
GETTING SMART

Total System Approach
and Controls Innovations



MARKET ACTORS TAKING A TOTAL SYSTEM VIEW

TOTAL SYSTEM
& SMART
CONTROLS



SMART CONTROLS ARE STILL GROWING...

TOTAL SYSTEM
& SMART
CONTROLS



...BUT IT'S STILL A
FRAGMENTED MARKET

TOTAL SYSTEM
& SMART
CONTROLS



DISTRIBUTORS ARE NOW KEY PLAYERS IN REGION'S SMART THERMOSTAT GROWTH

TOTAL SYSTEM
& SMART
CONTROLS



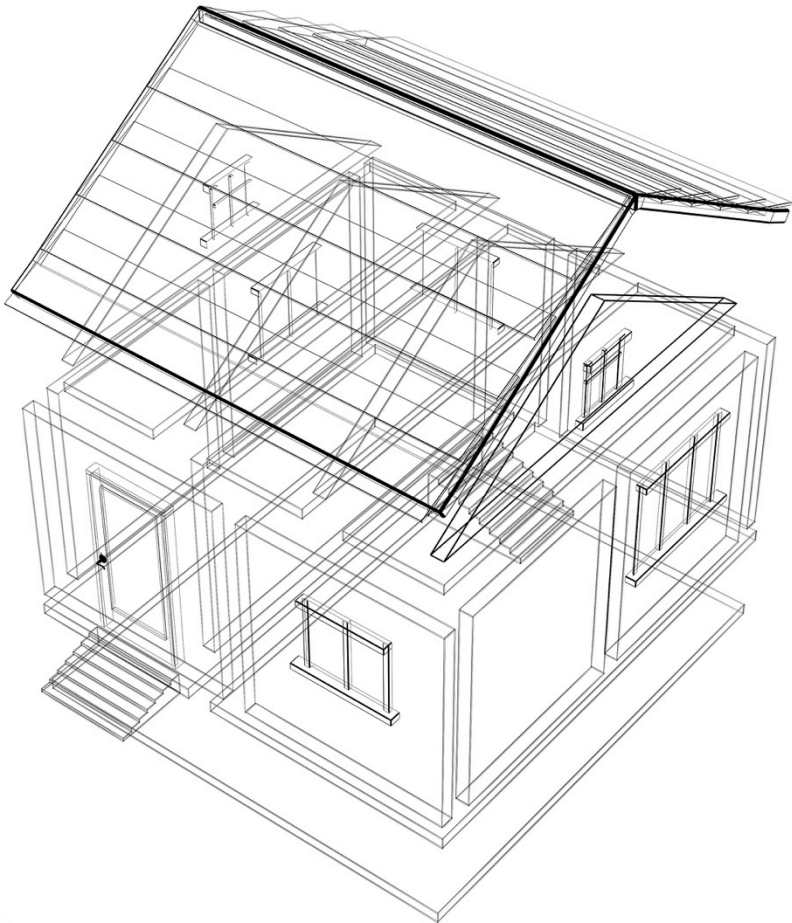
CONTRACTORS ACTIVELY PUSH SMART THERMOSTATS

TOTAL SYSTEM
& SMART
CONTROLS



STRONG SMART THERMOSTAT GROWTH IN SINGLE FAMILY NEW CONSTRUCTION

TOTAL SYSTEM
& SMART
CONTROLS





FINDING #

2

INNOVATIONS IN EFFICIENCY

MANUFACTURERS CONTINUE TO INNOVATE ON EFFICIENCY AND SUSTAINABILITY

INNOVATIONS
IN EFFICIENCY



DUCTLESS TECHNOLOGY STILL GROWING ACROSS THE BOARD

INNOVATIONS
IN EFFICIENCY

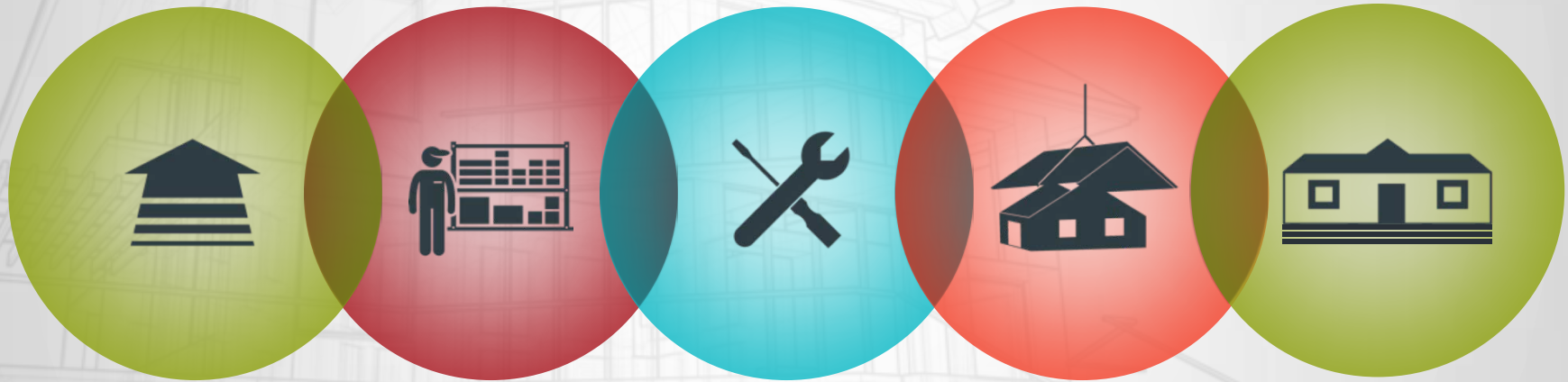


DUCTLESS HEAT PUMPS CONTINUE TO RISE IN POPULARITY IN THE NW

INNOVATIONS
IN EFFICIENCY



ALMOST EVERYONE IS OFFERING DHPS — NO LONGER A NICHE PRODUCT



Manufacturers
Advance the
Technology

Distributors
Well-Stocked

Installers
Actively Selling

Common in New
Single Family
Homes

Rarely Installed
at Manufactured
Home Factory

MORE TECHNOLOGY OPTIONS REINFORCE NEED FOR A SYSTEMS APPROACH

INNOVATIONS
IN EFFICIENCY



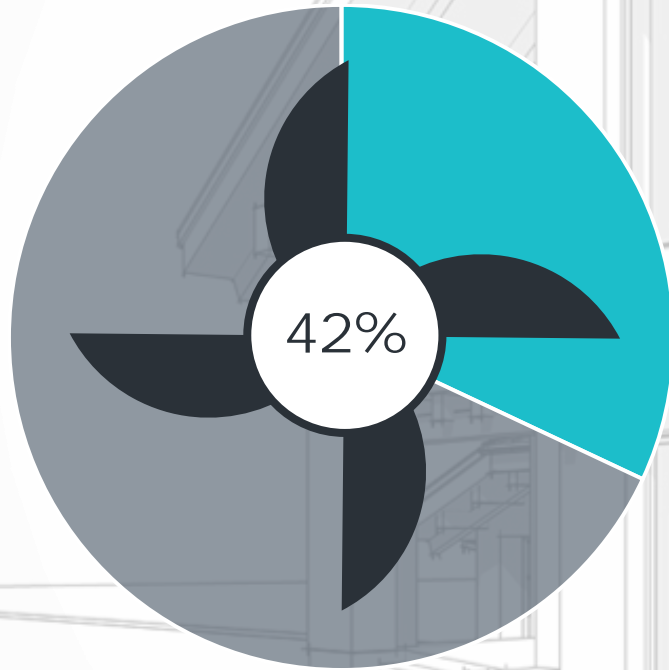
FINDING #

3

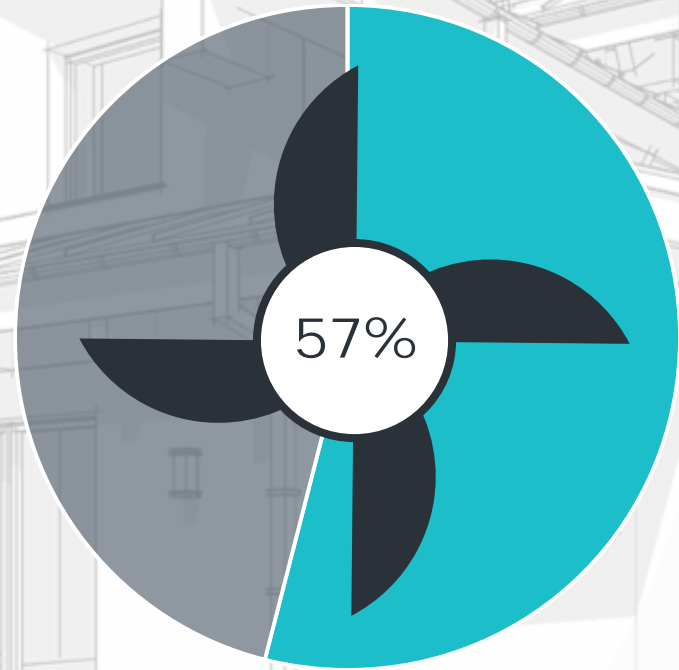
NORTHWEST
MARKET
EVOLUTION



WILL AIR CONDITIONING BECOME THE NORM?



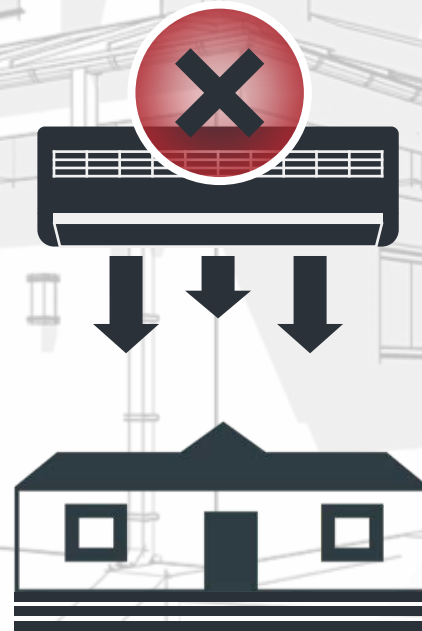
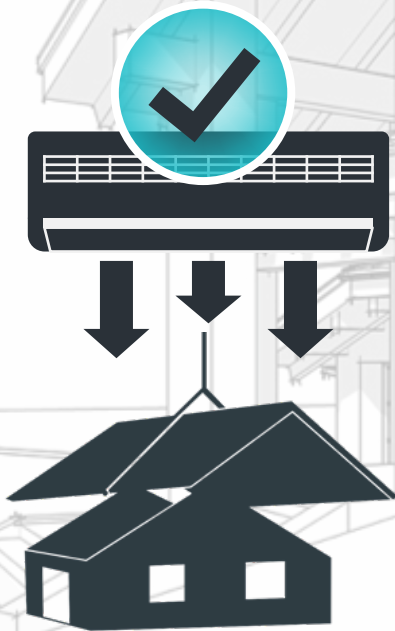
RBSA I*



RBSA II*

* RBSA figures reflect single family homes only.

AC BECOMING CONSTRUCTION STANDARD FOR SINGLE FAMILY, BUT NOT AT MANUFACTURED HOMES FACTORIES



HOME OWNERS ADDING COOLING TO PREVIOUSLY UN-COOLED HOMES

NORTHWEST
MARKET
EVOLUTION



RECAP



Whole system
approach



Innovations
in efficiency



Northwest
market evolution

Read more:

<https://www.bpa.gov/EE/Utility/research-archive/Pages/hvac-market-research.aspx>

NEXT STEPS

KEY TAKEAWAYS FOR OUR TEAM

Verify model inputs and results

Gather more information on key areas identified through interviews:

1. Growth in AC Penetration

2. Thermostat Savings

3. Manufactured Home Equipment



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