



Heat Pumps may be our Shining Star, but we Can't Hide Love for Ventilation

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CLASSIFICATION LEVEL: PUBLIC





The Alliance



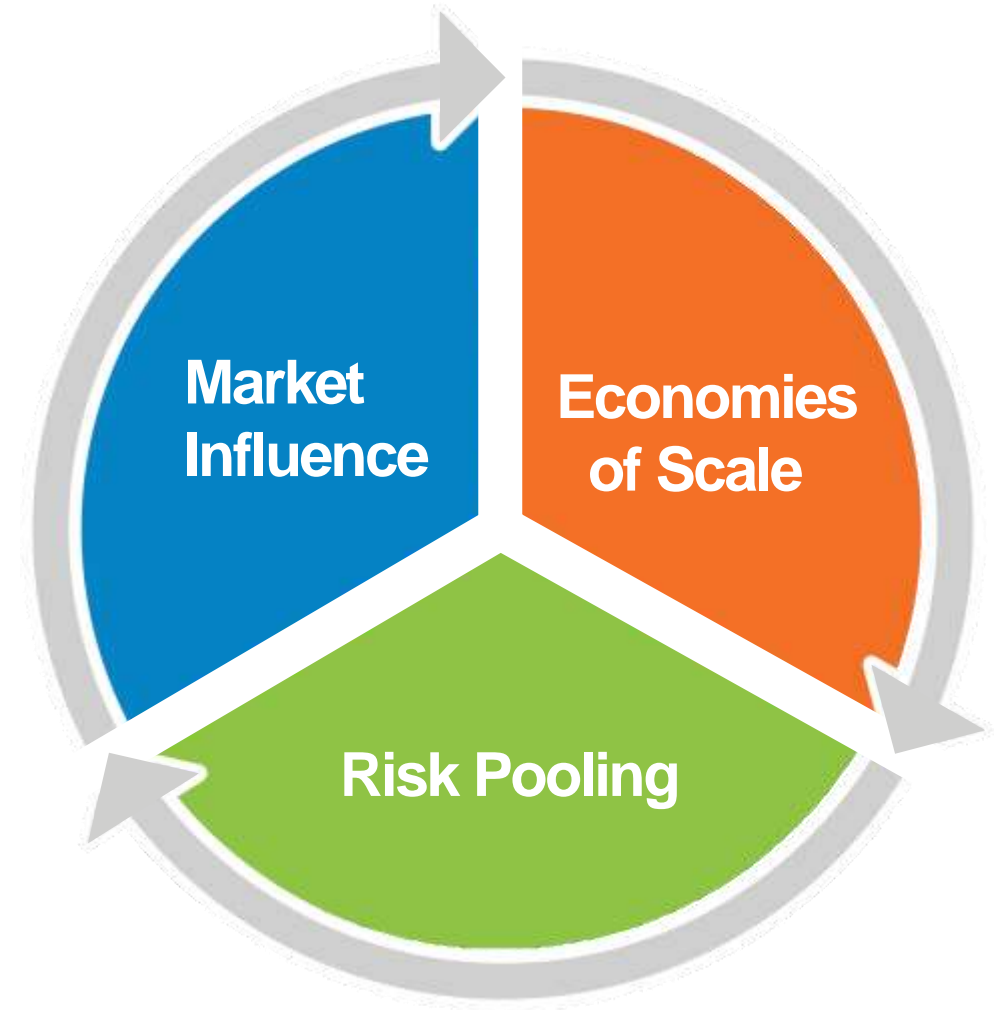
NEEA is an alliance of utilities that **pools resources** and **shares risks** to **transform the market for energy efficiency** to the benefit of consumers in the Northwest.

➤ **Market Transformation**

The strategic process of intervening in a market to create lasting change.



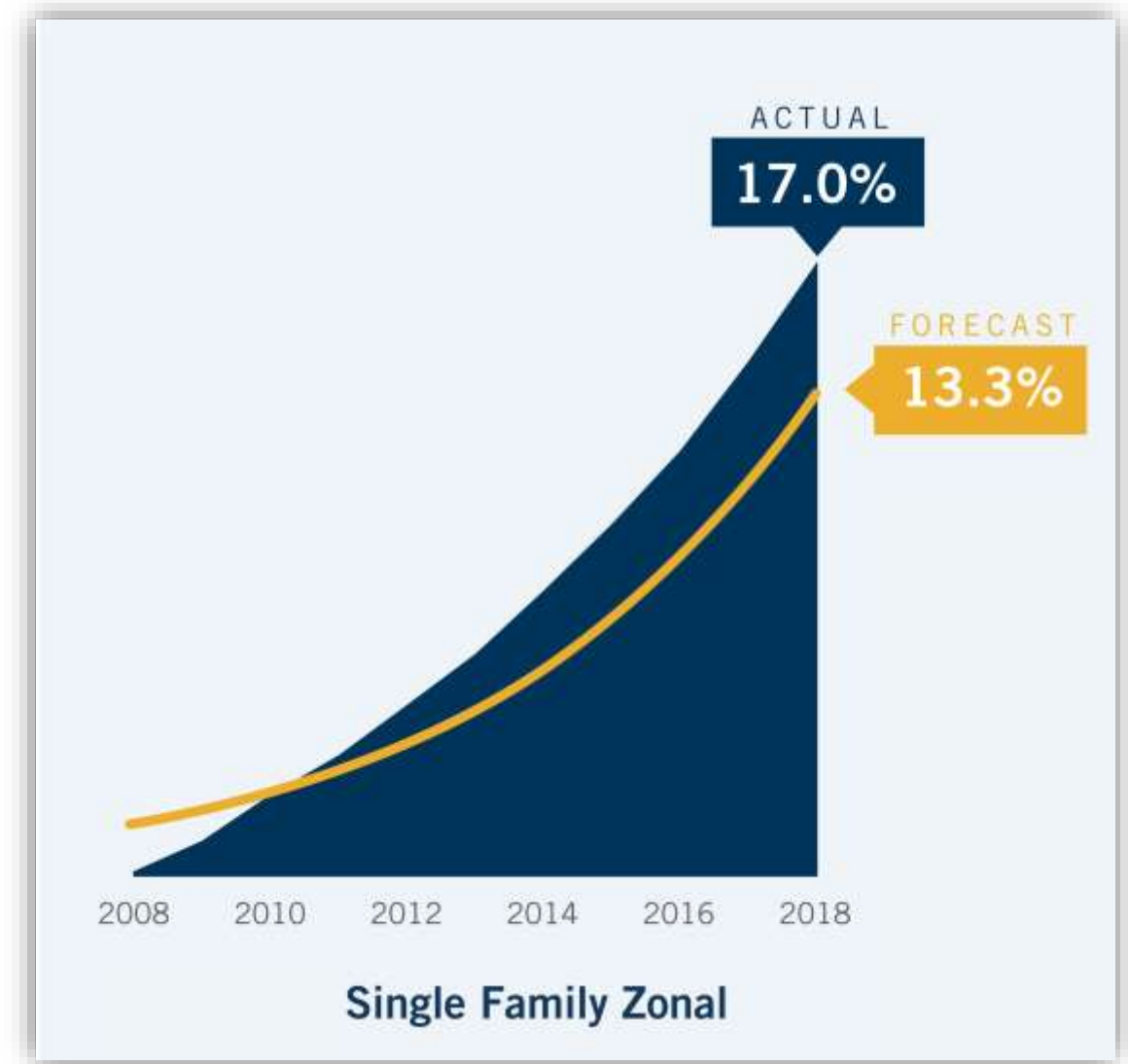
➤ *Value of national
collaboration
on Market
Transformation*





HVAC at NEEA

- Ductless Heat Pumps – 10+ year regional investment
- In development:
 1. Very High Efficiency DOAS
 2. Efficient RTU
 3. Variable Speed Heat Pumps
 4. Gas Heat Pumps for space and water heating

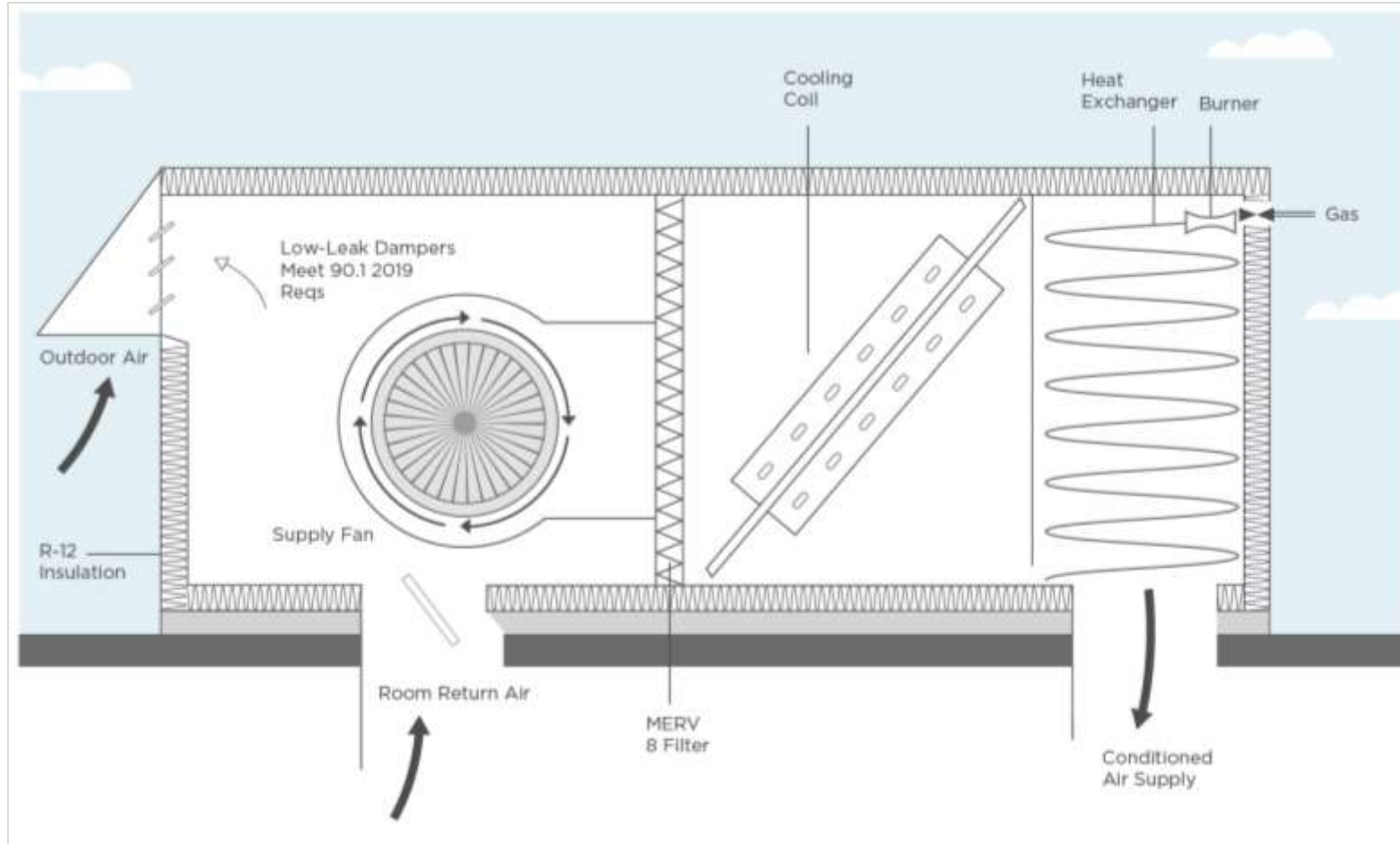


DHP Program: Forecast vs. Actual Market Penetration



Efficient gas rooftop units (RTUs)

TIER 1



>25%

of the Northwest's
heated commercial
building space

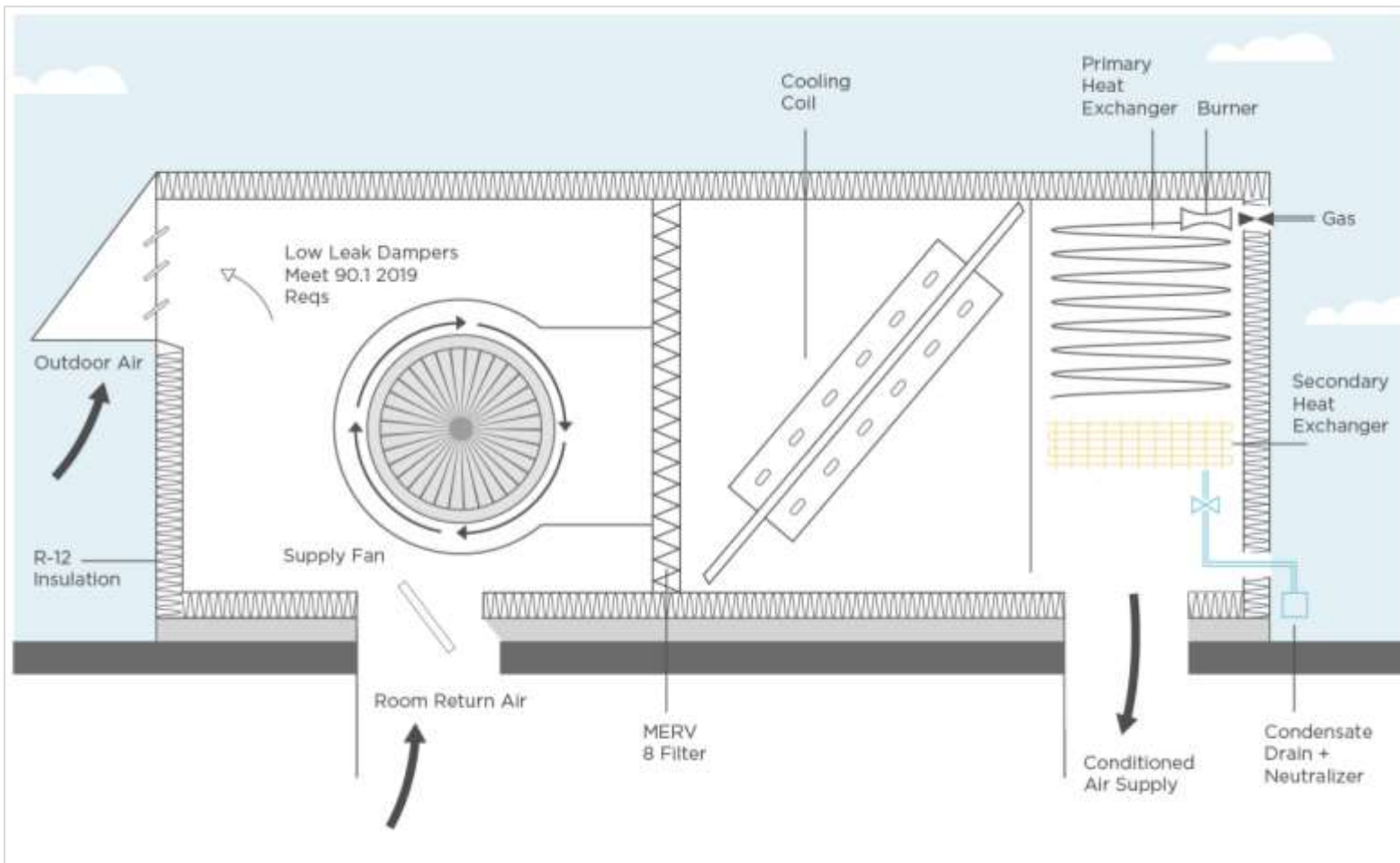
2-10%

reduction in
commercial HVAC
energy use



Efficient gas rooftop units (RTUs)

TIER 2: CONDENSING



>25%

of the Northwest's
heated commercial
building space

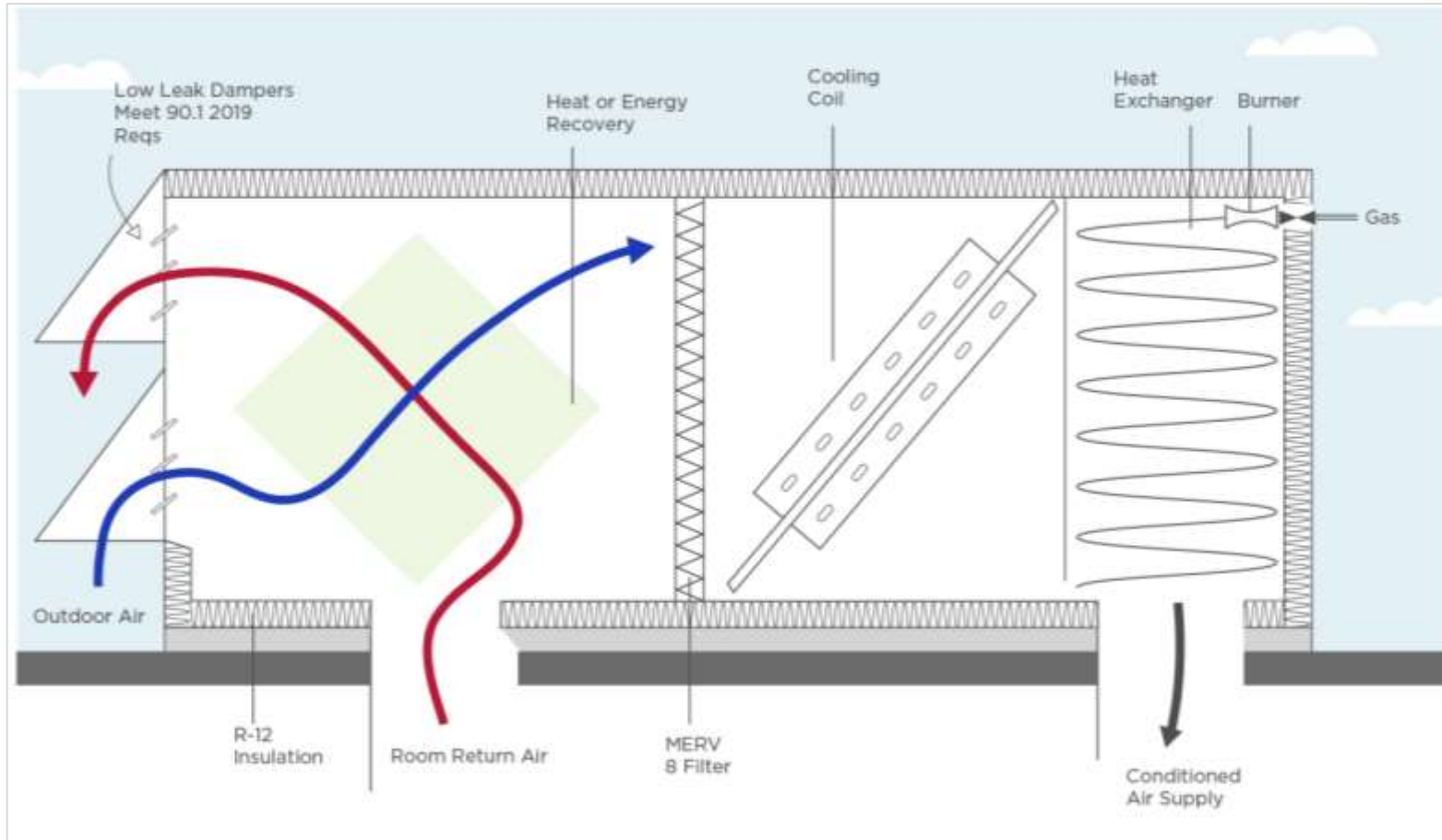
12-40%

reduction in
commercial HVAC
energy use



Efficient gas rooftop units (RTUs)

TIER 2: ENERGY RECOVERY



>25%

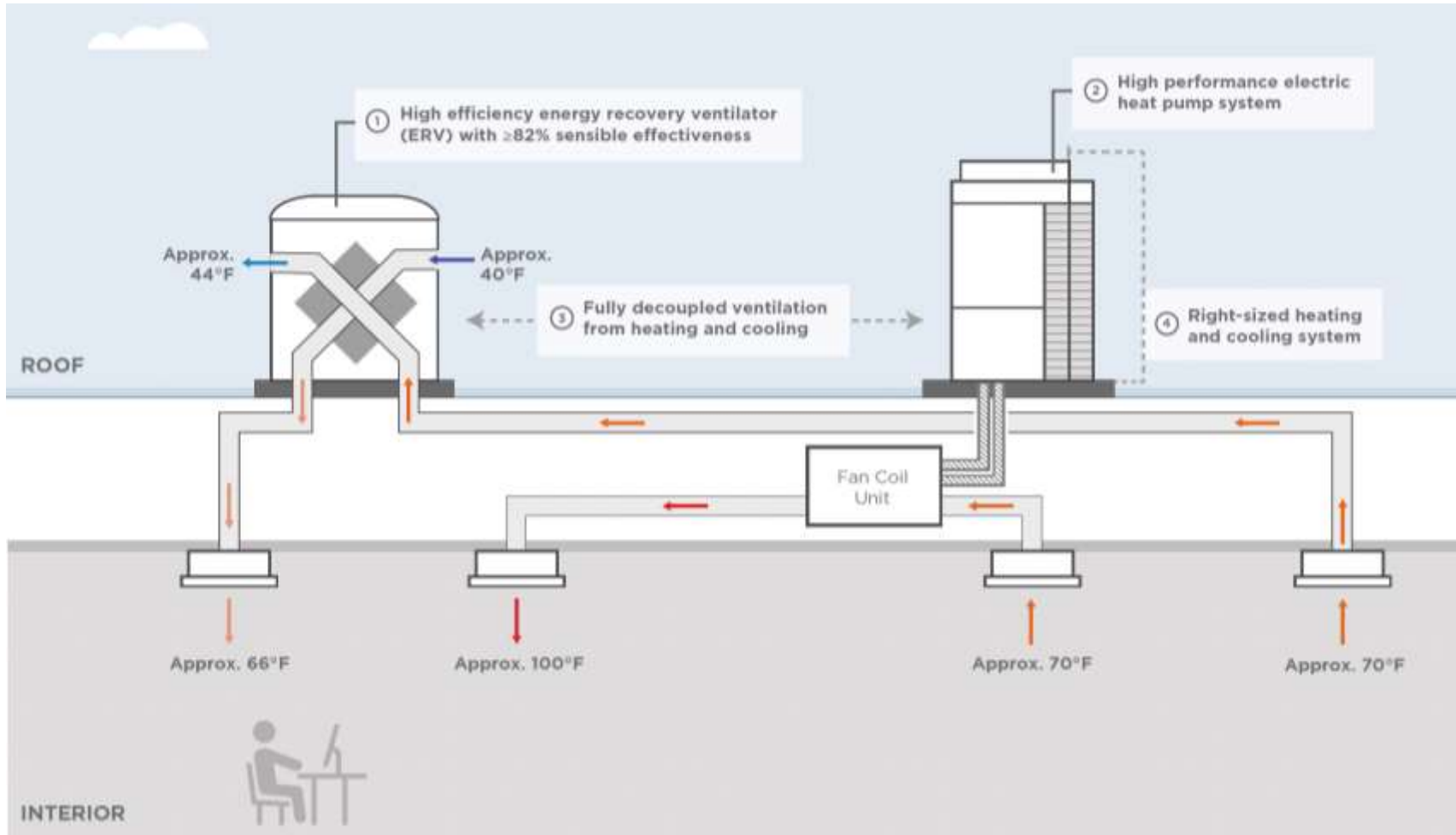
of the Northwest's
heated commercial
building space

12-40%

reduction in
commercial HVAC
energy use



Very high efficiency dedicated outside air system (DOAS)



approx.

20%

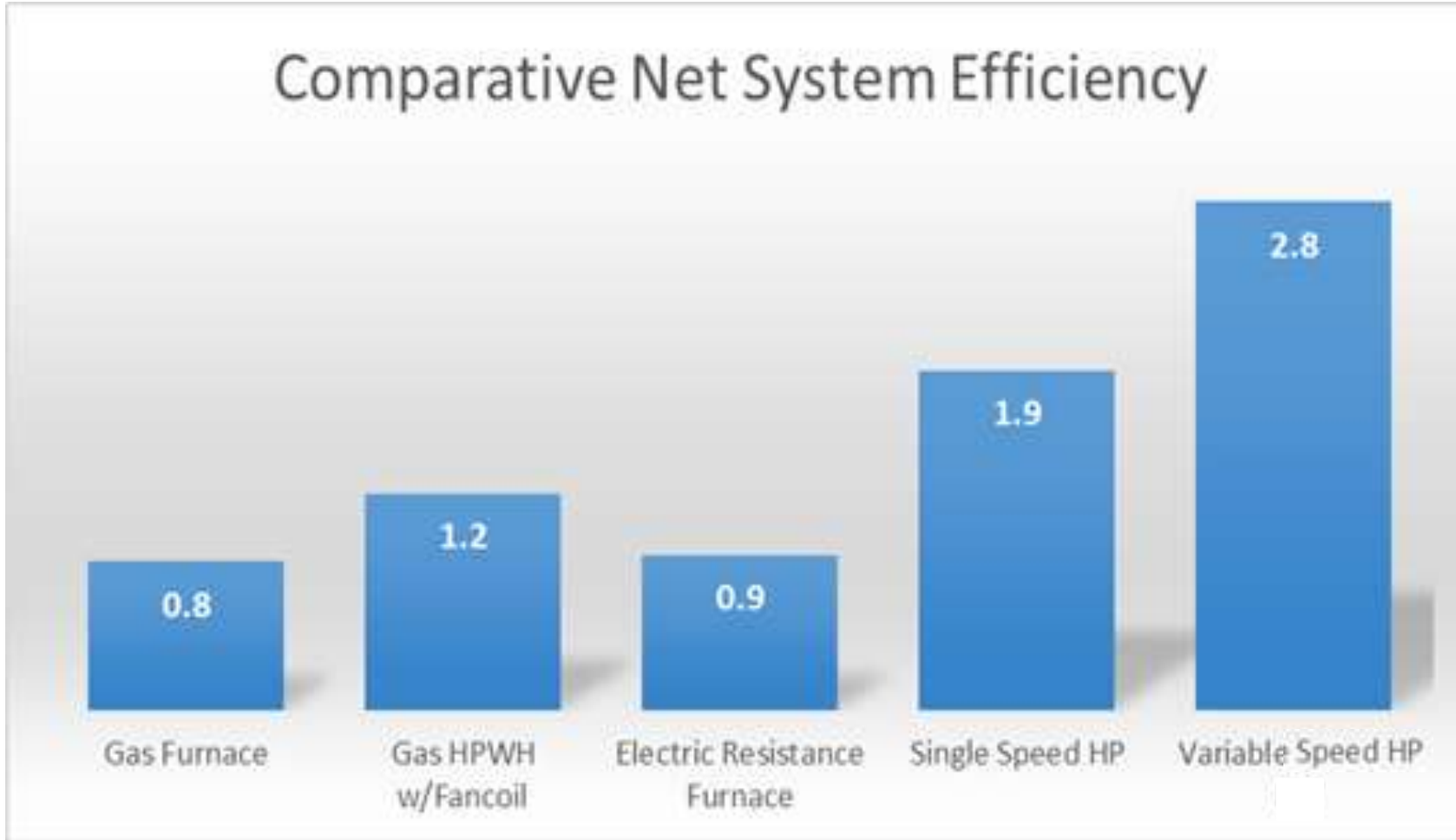
of the Northwest's
heated commercial
building space

average

65%

reduction in
commercial HVAC
energy use

Variable Speed Heat Pumps



approx.

20%

of the Northwest's residential space

targeting

30%

reduction in residential HVAC energy use



Advanced Heat Pump Coalition

Goal

Increase research collaboration among energy efficiency organizations that are working to accelerate market adoption of advanced heat pumps

Activities

Webinars, manufacturer engagement, collaborative research, workgroups

Workgroups

- Improved Test Procedure and QPL
- Technology Roadmap
- Best Practices

The brightest minds in heat pumps from organizations such as these:

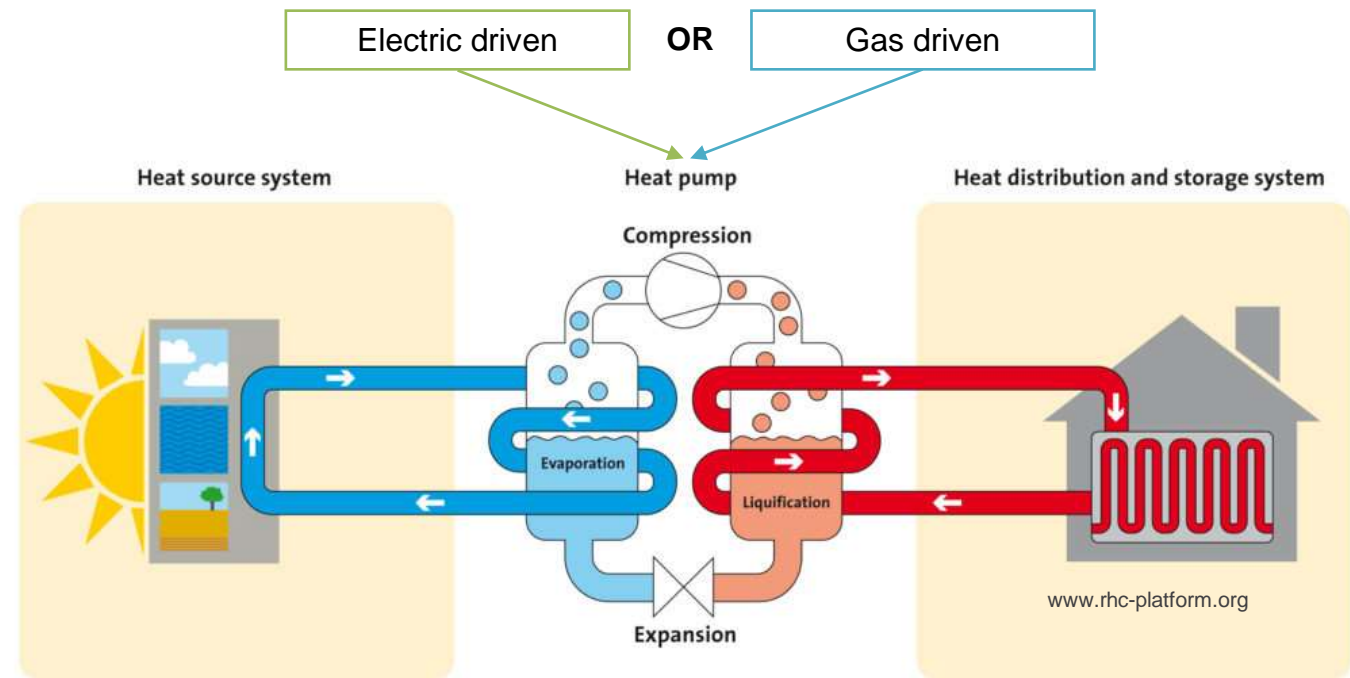




Gas Heat Pumps

Gas-driven Heat Pump (GHP*): Instead of electricity, GHPs use heat to drive the process

- Driven by gaseous fuels including natural gas, propane, as well as blends using RNG and/or Hydrogen
- Commercial available now, residential in 2023



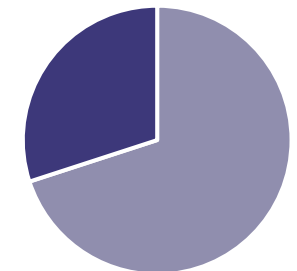
*Or "Thermal Heat Pump" (THP)



North American GHP Collaborative

...developing and implementing activities to accelerate adoption of gas heat pump technologies

- Working with manufacturers to develop **product launch strategies**
- Conducting **market research** to inform supply chain business decisions and utility market interventions
- Adopting joint **product specifications** to ensure customer satisfaction and product performance
- Supporting **supply chain education** to prepare the market
- Offering **aligned incentives** on qualified products to drive adoption
- Working with standards-setting organizations to incorporate GHPs into **codes and standards**



Representing >30% of US and Canadian households that use gas



*If you've got to get
some HVAC into
your life, reach out!*

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EARTH, WIND & FIRE

Got To Get You Into My Life



I'll Write A Song For You