Colorado Hybrid Heating Study

Joe Van Clock
Apex Analytics

Project Background

- Proposed point of sale standard requiring that all central ACs sold in Colorado have a reversing valve (i.e.: are heat pumps).
- Legislature requested a study of technical viability and market readiness.
  - Stakeholder interviews
  - Contractor group interviews
  - Technical analysis

The current market is focused on cold climate, high efficiency equipment

Some contractors differentiate in the market as heat pump specialists	"I can put them in, and a lot of people can't."
These contractors support dual fuel systems	"We're leaving the furnace in place. You can still have that as a backup. When everything switches over, you will be ready."
Utility incentives drive toward qualified equipment	"I'm working under the Xcel rebate. That pretty much dictates that I'm going to a full system."

Result: The existing market for basic heat pumps to take the place of a code minimum CAC is limited

There is concern that a standard would cause a "race to the bottom" with basic equipment

"What I don't want to start is a race toward single stage equipment and things like that. We want the cost to drop on the best equipment, not for all of us to be incentivized to move towards the bottom."

- This could also result in minimum efficiency heat pumps with electric resistance backup in new construction
- Suggested solutions
  - Pairing a standard with building code changes
  - Contractor training requirements

Market actors also see economic benefits

- Distributors can simplify inventory

"I'm biased because I don't have to store as much stuff. I can store one SKU instead of two."

- HP Specialist contractors can leverage their knowledge

"The only thing I'm worried about if this standard passes is how many Lamborghinis I'll be buying."



Availability may be limited in the short term

- Few available options are designed to be used with an existing furnace (manufacturer).
  - It could take ~4 years for manufacturers to respond and bring additional models to market
- A2L refrigerant requirement could exacerbate existing supply limitations (distributor).