

HFC Rulemaking, Chapter 173-443 WAC May 10, 2022 Q & A with Grocery Retailers

Q & A with grocery retailers

Ecology asked grocery retailers about the potential impacts of transitioning to low GWP refrigerants.

1. What is your most expensive refrigeration component and what is its average lifespan?
 - System itself, condensers and cases, changing refrigerant to low GWP in all systems in Washington would trigger a change in all cases, compressors and condensers, and likely piping.
 - For HVAC, the compressor is the most expensive, and lasts 15 years or so.
 - Recommend basing [criteria] on the equipment itself rather than the cost, which is subjective. It's easier to identify when you replace 50% of your compressors than 50% of the cost.
2. Which equipment can be retrofitted for a low GWP refrigerant — meaning little other adjustment is needed?
 - Only refrigerant available under 150 GWP is CO₂. Problem now is that there is nothing to put into it. Only A2L. Can't change out a refrigerant without changing all components. Going from CO₂ from HFC is doable, but very expensive. For a large store, this would be hard. Drop-ins below 150 GWP are not common.
 - Lots of HFO blends in use in stores. Very expensive to transfer and may close stores.
 - EPA does not allow a retrofit to a different safety class system (A2L, etc.).
 - Current building codes do not allow for A2Ls.
 - Are building code changes down the pipeline? (Ecology is talking with SBCC on expected timelines.)
 - Building codes are in process of revision for A2Ls.
3. Which equipment cannot be retrofitted for a low GWP refrigerant – meaning that replacing this component would trigger other replacements?
 - Agree with all comments on getting to less than 150 GWP will take full store replacement (compressors, cases, condensers)
4. What is the most significant barrier to complying with a 2025 effective date for purchases of new equipment that complies with a 150 GWP?
 - Biggest challenge is supply chain challenges. New locations are generally permitted earlier than when they open.
 - Building codes are not yet updated.
 - Costs
 - Contractor availability
5. What is the most significant barrier to transitioning to a low GWP on a store-wide level? On a company-wide level?
 - Stranding usable equipment with existing usable life left
 - Building codes
 - Costs, supply chains, availability of certified qualified technicians to work with different operating systems with higher pressures. There's a learning curve.

- For retrofits, significant down times (weeks to months, depending on supply chains) for certain components. It will mean entire system replacement, especially for CO₂.
 - Planned vs. unplanned replacements will affect down time.
 - Stores that close at night vs. 24-hour stores will make a difference for down times.
 - Going to less than 150 GWP requires all new equipment. Need to phase the equipment in and there is often not space in the store to hold the equipment (logistical challenges).
 - Cost and available contractors, plus downtime
6. CARB's HFC rule allows for a company-wide weighted average approach to GWP reductions. This was not originally contemplated in Washington. Would you want to see Washington take this approach? Why or why not?
- What is the goal for Washington? CARB had a goal for which the CWWA approach met their goal.
 - Focus on GWP of the refrigerant when considering leakage and where to prioritize.
 - May delay remodels to go with hard and fast deadline for transitioning
 - May realize more carbon reduction through CWWA, but work would be needed to formulate capital plan
 - Depends on where Washington ends up with the definition for <150 GWP in remodels and equipment in existing stores
7. What else do you think we should know?
- Interest in continued discussion
 - We are taking action on high GWP systems for the AIM Act. AWGWP could fit with that program (accelerated as needed, pending Washington dates and goals).