

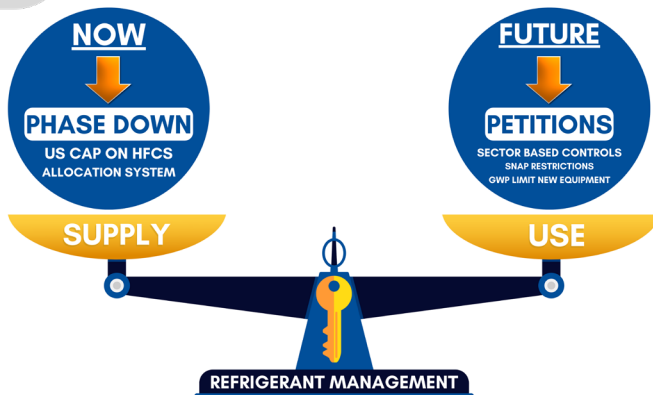


HFC REGULATIONS FACT SHEET

Your Guide to Federal and State HFC Regulations in North America for HVACR Refrigerants

FEDERAL HFC LEGISLATION: AIM Act

- The American Innovation & Manufacturing Act was passed in late December 2020.
- The AIM Act mirrors the international Kigali HFC phase down schedule and established a cap on the quantity of HFCs that can be produced or imported in the US starting January 1, 2022.
- EPA issued allocations, similar to the HCFC allocation system, to individual companies that produce or import HFCs. Allocations are NOT refrigerant specific. They are based on the CO2 equivalency of the global warming potential of HFC refrigerants.
- The AIM Act also provides for sector based controls that gives EPA the authority to restrict what refrigerants can be used in specific applications.
- The AIM Act DOES NOT affect the servicing of the installed base of equipment.
- Good refrigerant management will be key for the industry to maintain the appropriate balance of supply to demand for both servicing and new equipment.

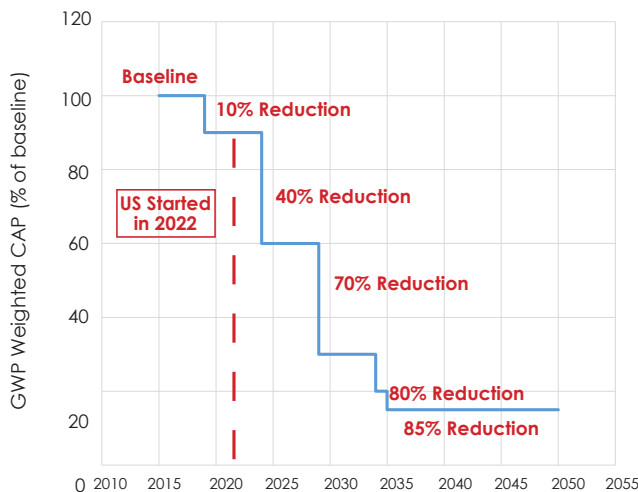


IMPORTANT: The Aim Act DOES NOT place or require limits on the servicing of installed equipment

HFC Phasedown Schedule (NOT phaseout)

Year	% of Cap
2019*	90%
2022**	90%
2024	60%
2029	30%
2036	15%

AIM Act Phasedown Schedule as % of US Baseline



Higher GWP Refrigerants will be under pressure to be switched to a lower GWP refrigerant

- New refrigerants will enter the market
- System architectures will change

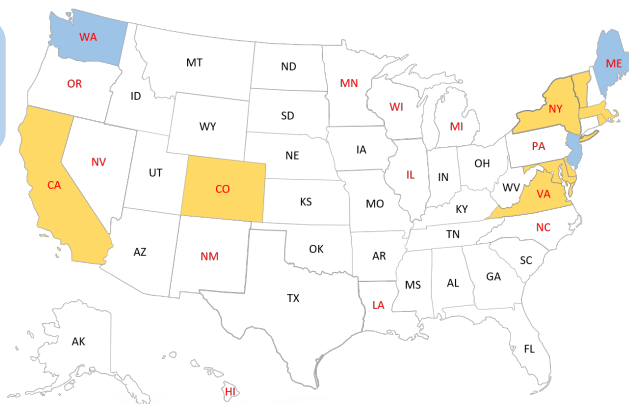
STATE REGS: SNAP 20 & 21 STATE BY STATE

Adopted definition of "NEW" that impacts servicing

Did not adopt definition of NEW that impacts servicing

Red = US Climate Alliance States

Yellow & Blue = adopted SNAP 20 & 21 as State law



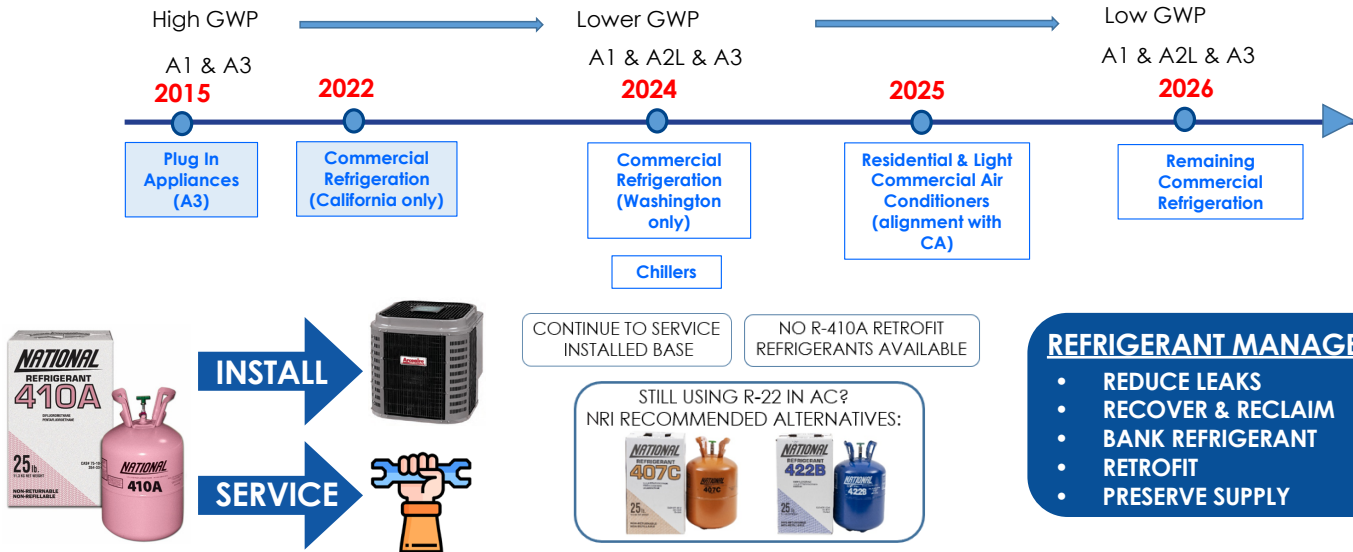
Affects NEW Equipment & Refrigerant Retrofit in:

- » Supermarket systems
- » Remote Condensing Units
- » Stand-alone Units
- » Food processing/dispensing
- » Cold Storage Warehouses
- » Chillers

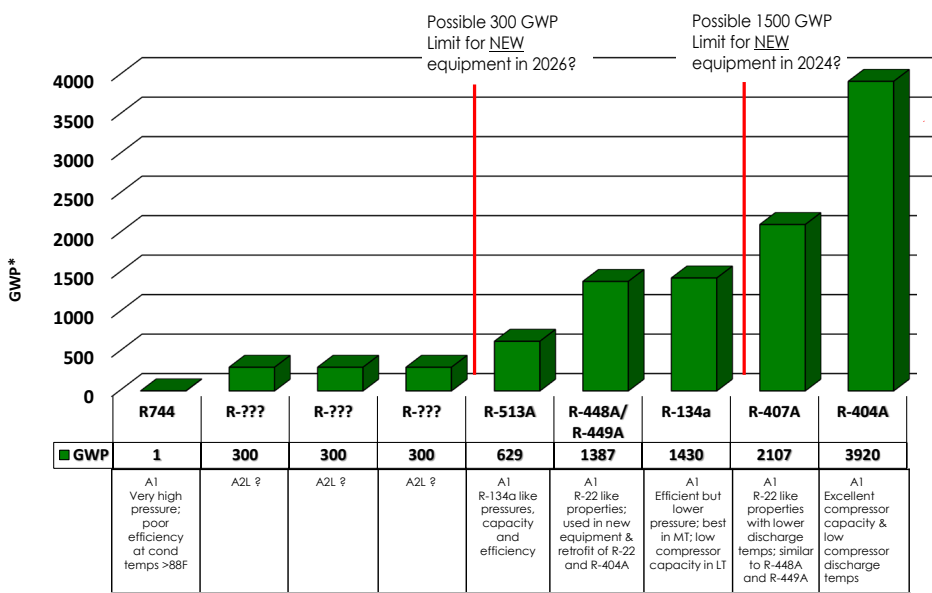
In the absence of federal regulations and the reversal of the SNAP 20 & 21 restrictions, individual states adopted the SNAP restriction as state law. For more information, go to www.uri.com & click on the Refrigerant Regulatory Updates link for a summary of each state and the definition of 'new'.

Likely NEW Equipment Transitions to Lower/Low GWP Refrigerants

Determined by Reduction in HFC Cap & Sector Based Controls



Global Warming Potential (GWP) – Refrigeration



Higher GWP HFCs Will Be Available for Service

Considerations below 1300 GWP:

- pressure
- capacity
- temperature glide
- charge limits
- energy efficiency
- flammability

REFRIGERATION : Transitioning from HCFCs to HFCs



REFRIGERATION : R-404A & R-507 SYSTEMS - What to do now



- ✓ System running well
- ✓ No or few leaks
- ✓ No good retrofit options
 - Cost?
 - Design?
- ✓ No cost justification
 - Small charge



- ✓ After large refrigerant loss
- ✓ Store remodel
- ✓ Available resources
 - Financial
 - Technicians
- ✓ R-407A/ R-448A/ R-449A



- ✓ Formulate plan
 - Short term
 - Longer term
- ✓ Manage refrigerant supply