

Carrier is a leader in sustainability

2020 SUSTAINABILITY GOALS

To be completed by the end of 2020, based on 2015 as baseline year.



REDUCE GHG EMISSIONS BY 15%

Progress: 15% Reduction
(Goal Met)



REDUCE WATER CONSUMPTION BY 25%

Progress: 34% Reduction
(Goal Exceeded)



IMPLEMENT 100% WATER BEST MANAGEMENT PRACTICES

Progress: 83% Implementation
(In Progress)



REDUCE HAZARDOUS WASTE GENERATION BY 10%

Progress: 21% Reduction
(Goal Exceeded)



INCREASE WASTE RECYCLING RATE TO 90%

Progress: 94% Increase
(Goal Exceeded)



ELIMINATE USE OF CHLORINATED & BROMINATED SOLVENTS

Progress: 88% Elimination
(In Progress)



REDUCE ERGONOMIC RISK BY 50%

Progress: 62% Reduction
(Goal Exceeded)



REDUCE WORKERS' EXPOSURE TO HAZARDOUS SUBSTANCES

Progress: 90% Reduction
(In Progress)

- ✓ Healthy, safe, and sustainable building and cold chain solutions
- ✓ Led the transition from R22 to Puron
- ✓ First company to sign 2023 pledge
- ✓ We want to lead the way in meeting environment goals

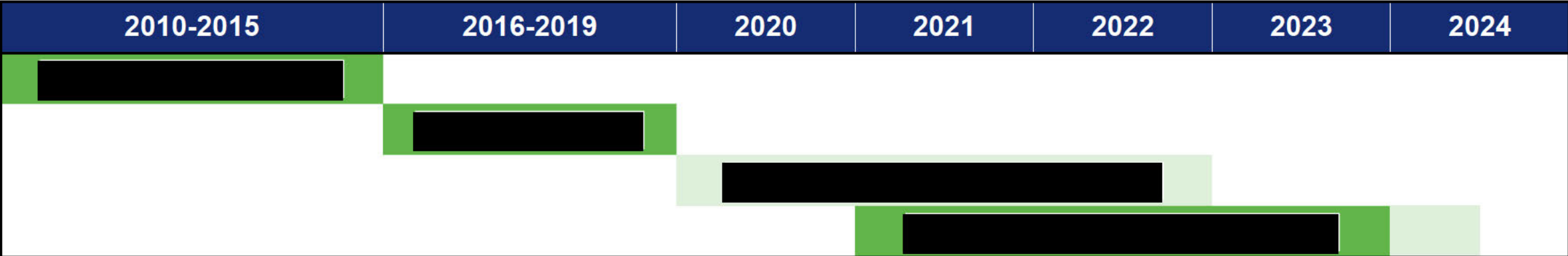
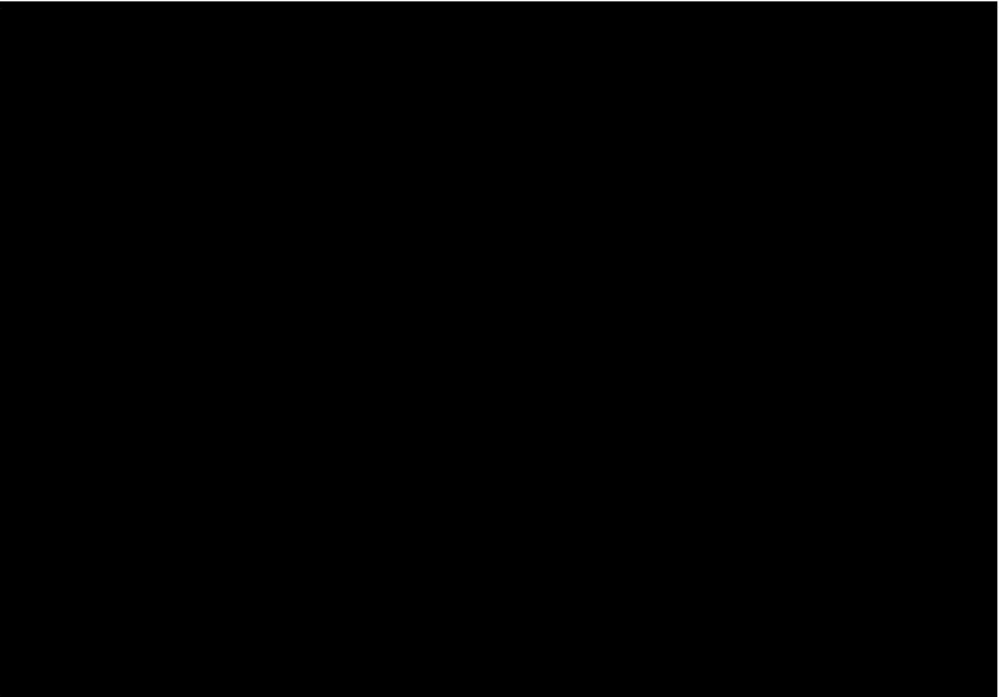
Development of Low GWP refrigerant

■ years of refrigerant and safety research & development invested

■ residential and commercial systems to develop

2020 challenges due to pandemic

- [Redacted]



Product cannot be sold without codes



Triennial Code cycle

- Effective 01/2023
- No longer possible



Intervening Code cycle

- Effective 07/2024
- January 1, 2025 product introduction

Refrigerant Standards

ASHRAE Standard 34
Safety Designation &
Classification

Safety Standards

ASHRAE Standard 15
Safety Standard for
Refrigeration/AC Systems

UL 60335-2-40
Heating and Cooling
Equipment

5+ years of work by
Industry

Codes Proposal

Model Codes
or
State Fire Marshal

State Building Code

California
Building Code

2025 not possible if codes do
not adopt safety standards



We need CARBs help to get codes adopted

Reclaim compliance in ISOR not achievable

- X** There is not enough reclaim in California to supply new product according to AHRI industry data
 - ~1600 metric tons available while needing ~4000 for new equipment
- X** At current reclaim rates there is not enough reclaim nationally to supply new product in California according to AHRI industry data
 - ~1200 metric tons reclaim in 2019 according to EPA report
- X** Limited reclaim supply will increase HVAC cost significantly
- X** OEMs are unable to solve reclaim availability

HVAC Channel Model

Manufacturer's Role

- Mfg & sell equipment
- Create Training



Refrigerant
manufacturers

Component
manufacturers

Distributor Role

- Sells equipment, supplies, and refrigerant
- Give training

Distributor
Customer

Other Brand
Distributors

Contractor Role

- Installs & services equipment
- Handles refrigerant

Factory Authorized Dealer

Multiple Brand contractor

Homeowner

Building owner



Carrier will continue to move forward

- ✓ We will continue to push for codes to be adopted
- ✓ Will continue to promote the benefits of [REDACTED] and progress the technology
- ✓ Will encourage reclaim of HFC refrigerants
 - Create incentives for contractors
 - Create training and promotion materials for all stakeholders