### **CASE STUDY**

A-Gas Provides One of the First HCFC-22 Destruction Projects Using Approved Methodology



# BACKGROUND

#### About Wren

Wren is a climate subscription service that helps individuals offset their carbon footprint through monthly contributions. Users can calculate their carbon emissions using Wren's intuitive calculator and fund various climate projects, including refrigerant destruction. Wren emphasizes transparency by providing regular updates on the impact of contributions, including data, photos, and stories. The platform aims to make climate action simple and effective, ensuring that every dollar contributes to meaningful environmental change.

#### About A-Gas

A-Gas is a world leader in the supply and lifecycle management of refrigerants and associated products and services. Through our firstclass recovery, reclamation, and repurposing processes, we capture refrigerants and fire protection gases for future re-use or safe destruction, preventing harmful release into the atmosphere. For over 30 years, A-Gas has supported our clients and partners on their environmental journey by supplying lower global warming gases and actively increasing the circularity of the industries we serve, building a sustainable future.

### CHALLENGE

The widespread use of refrigerants like HCFC-22 (R22) presents a significant environmental challenge. HCFC-22 is a potent greenhouse gas with a global warming potential (GWP) much higher than  $CO_2$  (one molecule of R22 has a global warming impact 1,810 times that of one molecule of  $CO_2$ ). If not properly managed, its release would have a negative impact on the atmosphere. As these refrigerants reach the end of their lifecycle, there is an urgent need for effective solutions to prevent their emissions and minimize their environmental impact.

### SOLUTION

To address this challenge, A-Gas recovers refrigerants for reclamation or destruction at A-Gas facilities across the country



# AT A GLANCE

### Challenges

- Facilitate carbon projects with the greatest environmental impact.
- Destroy ozone-depleting substances (ODS) at the end of their lifecycle (i.e. it can no longer be reclaimed or reprocessed for re-use).
- Diversify carbon projects available to subscribers.

### **Benefits**

- Environmental: Destroying ODS will prevent harmful releases into the atmosphere.
- Other: Educating climate-focused people on the impact of lifecycle refrigerant management.
- Economic: Leveraging the carbon market to fund ODS destruction.



"We are excited to work with A-Gas to push forward the standard of refrigerant destruction protocols and technology. This is one of the most reliable and impactful project types we have found in our years of funding climate solutions, and we hope our community can keep blazing a trail to eliminate these dangerous refrigerants."

> Landon Brand Chief Executive Officer, Wren

through its on-site refrigerant recovery service (<u>Rapid</u> <u>Recovery</u>®), refrigerant buyback programs, and wholesale supplier reclaim program (<u>Refri-Claim</u>™).

Wren and A-Gas formed a partnership to provide Wren subscribers with the opportunity to fund an HCFC-22 destruction project through the generation of A-Gas carbon credits to ensure the gas does not escape into the atmosphere.

While the <u>ACR</u> (formerly American Carbon Registry) methodology has included HCFC-22 as eligible for destruction-generated offsets since 2017, few have completed such projects because the price of HCFC-22 is so high; it is more profitable for organizations to reclaim this product. As such, this is one of the first HCFC-22 destruction projects utilizing ACR's methodology. Approved by the International Civil Aviation Organization (ICAO) to provide carbon credits in its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), ACR is highly regarded across the world.





# CONCLUSION

## RESULTS

The partnership yielded multiple environmental benefits:

- **Emissions Avoided:** The initiative successfully avoided the release of 16,000 tons of CO<sub>2</sub>-equivalent emissions by destroying HCFC-22. This substantial elimination of greenhouse gas emissions demonstrates the effectiveness of the program.
- **Subscriber Engagement:** Wren provided its subscribers with detailed updates on the impact of their contributions. These updates included data on the quantities of HCFC-22 destroyed and the corresponding emissions reductions. This transparency helped build trust and encouraged ongoing participation in climate action.
- Educational Impact: The collaboration raised awareness about the importance of proper lifecycle refrigerant management. Wren and A-Gas educated the public on lesser-known aspects of climate change mitigation by highlighting the environmental benefits of destroying high-GWP substances.

By leveraging Wren's platform to mobilize individual contributions and A-Gas' technical expertise in lifecycle refrigerant management, this partnership enabled an environmentally conscious solution for the used refrigerant. It underscores the potential for innovative partnerships that can help to further reduce emissions in the refrigerant industry.

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Created over 16,000 metric tons of emissions reductions.