

CASE STUDY

A-Gas Supports Customer With an Effective Long-Term Lifecycle Refrigerant Management (LRM) Solution

BACKGROUND

About the Customer

The customer is one of the largest container trans-shipment hubs in the world. It has connections with 600 ports globally and has a sustainability target of achieving a 50% reduction in Greenhouse Gas (GHG) emissions by 2030, and becoming a net-zero company by 2050. After working with A-Gas in 2021, it became the first port in Southeast Asia to use reclaimed refrigerants in its reefer containers.

About Ping Engineering (S) Pte Ltd

Ping Engineering (S) Pte Ltd is a leading local contractor and provider of mechanical and electrical systems in Singapore. Founded in 2004, it specialises in supplying engineering, design, and building services, as well as the testing and commissioning of various systems for commercial complexes, offices, hospitals, and more. It also works frequently with air conditioning, refrigeration, and ventilation applications.

About A-Gas

A-Gas is a world leader in the supply and lifecycle management of refrigerants and associated products and services. Through our first-class recovery, reclamation, and repurposing processes, we capture refrigerants and fire protection gases for future re-use or safe destruction, preventing their harmful release into the atmosphere.

For over 30 years, A-Gas has supported its 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.

AT A GLANCE

Challenges

- Recovering large amounts of used HFC refrigerants with a high Global Warming Potential (GWP) and preventing its release into the atmosphere.
- Providing a highly organised and time-effective solution which enables the customer to continue its daily operations.
- Supporting all key stakeholders and partners in complying with the Resource Sustainability Act (RSA) in Singapore.

Benefits

- Safe and efficient refrigerant recovery that helps supports the customer in achieving its sustainability goals; a 50% reduction in Greenhouse Gas (GHG) emissions by 2030, and to achieve net-zero by 2050.
- Effective collaboration between A-Gas and its partners.
- Use of A-Gas' skilled technicians and equipment to provide a consistently high-quality service.



"We are pleased to have partnered with A-Gas on the refrigerant gas recovery for our Aicon Replacement Works project for the customer. As an expert in the field, A-Gas shared its technical knowledge and provided support whenever necessary. All issues have concluded with positive outcomes resulting in minimised downtime and more efficiency in our recovery operation."

Willy Tan

Deputy Manager (Tender), Ping Engineering (S) Pte Ltd

CHALLENGE

The customer needed a large amount of used R410A and R32 recovered from 176 decommissioned air conditioning units (both VRV and Split) in its terminal offices.

When systems are at their end-of-life stage, it is essential that the refrigerant is safely recovered and not released into the atmosphere in alignment with the Resource Sustainability Act (RSA) in Singapore. The project is also a challenge logistically, as the office buildings are large and the units are in many different locations. Additionally, the recovery process on these systems is time-consuming, taking an average of 1-2 hours per unit.

SOLUTION

Ping Engineering (S) Pte Ltd found A-Gas while looking for a licensed waste collection company and recognised it as an efficient and effective partner. Ping Engineering (S) Pte Ltd decommissions the units and moves them to a "holding area" where A-Gas' fully certified technicians complete the recovery of the used refrigerant.

A-Gas' recovery equipment is on-site and custom-designed, and allows for an efficient recovery process that avoids disruption. It is compatible with systems of any size, anywhere and anytime, enabling A-Gas' skilled technicians to recover the refrigerant safely and effectively.



RESULTS

The refrigerant has been recovered without disrupting the customer's daily operations. It is being transported to A-Gas' facility to be reclaimed to AHRI 700 standards for future re-use in place of virgin product. A-Gas has prevented its release into the atmosphere while also providing the customer with a cost-effective solution over a large number of systems.

CONCLUSION

A-Gas is helping the customer embrace circular economy principles by reducing carbon dioxide-equivalent emissions from redundant air conditioning systems. It demonstrated that it can supply customers with high-quality Lifecycle Refrigerant Management (LRM) solutions, no matter the scale or timeframe of the project.

By reclaiming and repurposing the gas from the customer's systems, A-Gas is protecting the environment by preventing it from being released into the atmosphere.