



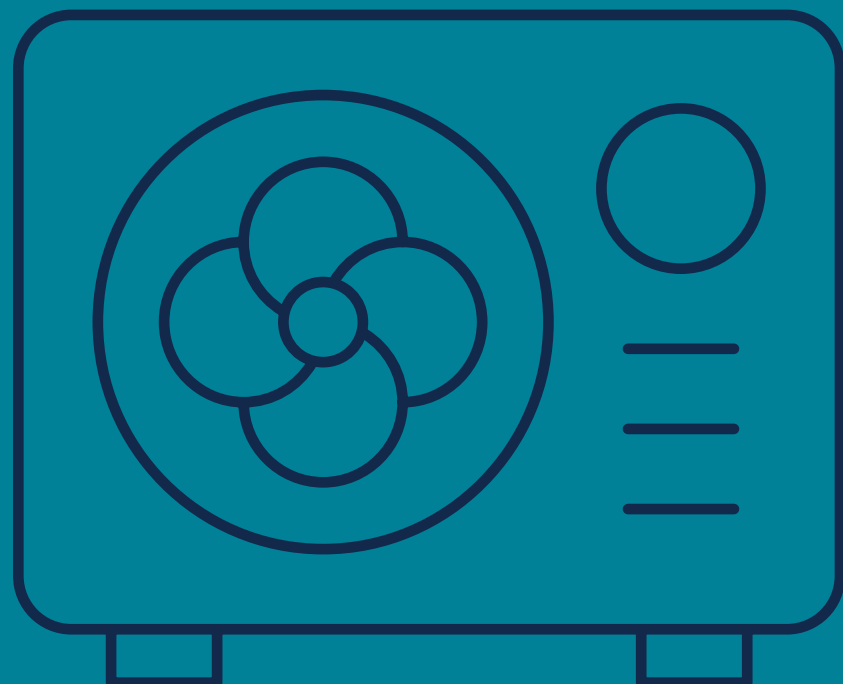
REPORT OVERVIEW | APRIL 2026

Clearing the Air on Reclaimed Refrigerant

Evidence of Performance Parity
with Virgin Refrigerant

Refrigerants are essential to support many of the **systems of modern life.**

AIR CONDITIONERS



REFRIGERATORS



HEAT PUMPS



Unfortunately, many commonly used refrigerants have a **global warming potential (GWP)** hundreds to thousands of times higher than carbon dioxide.

R-410A, one of the most commonly used refrigerants in residential and commercial AC systems in operation today, has a

GWP

2,000x

higher than CO₂.

R-410A



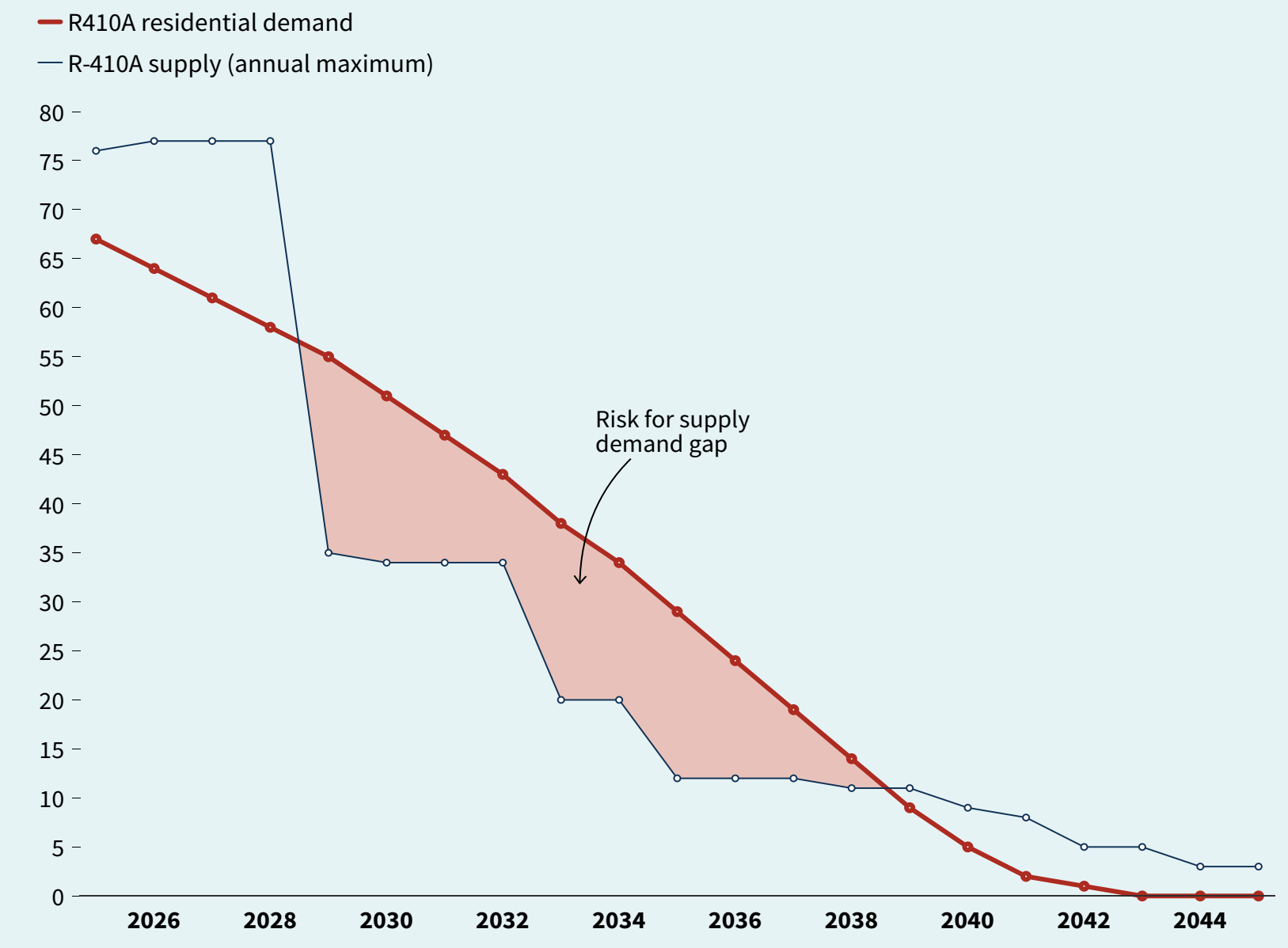
CO₂



Therefore, the US is phasing down production of these refrigerants and **transitioning to lower-GWP alternatives.**

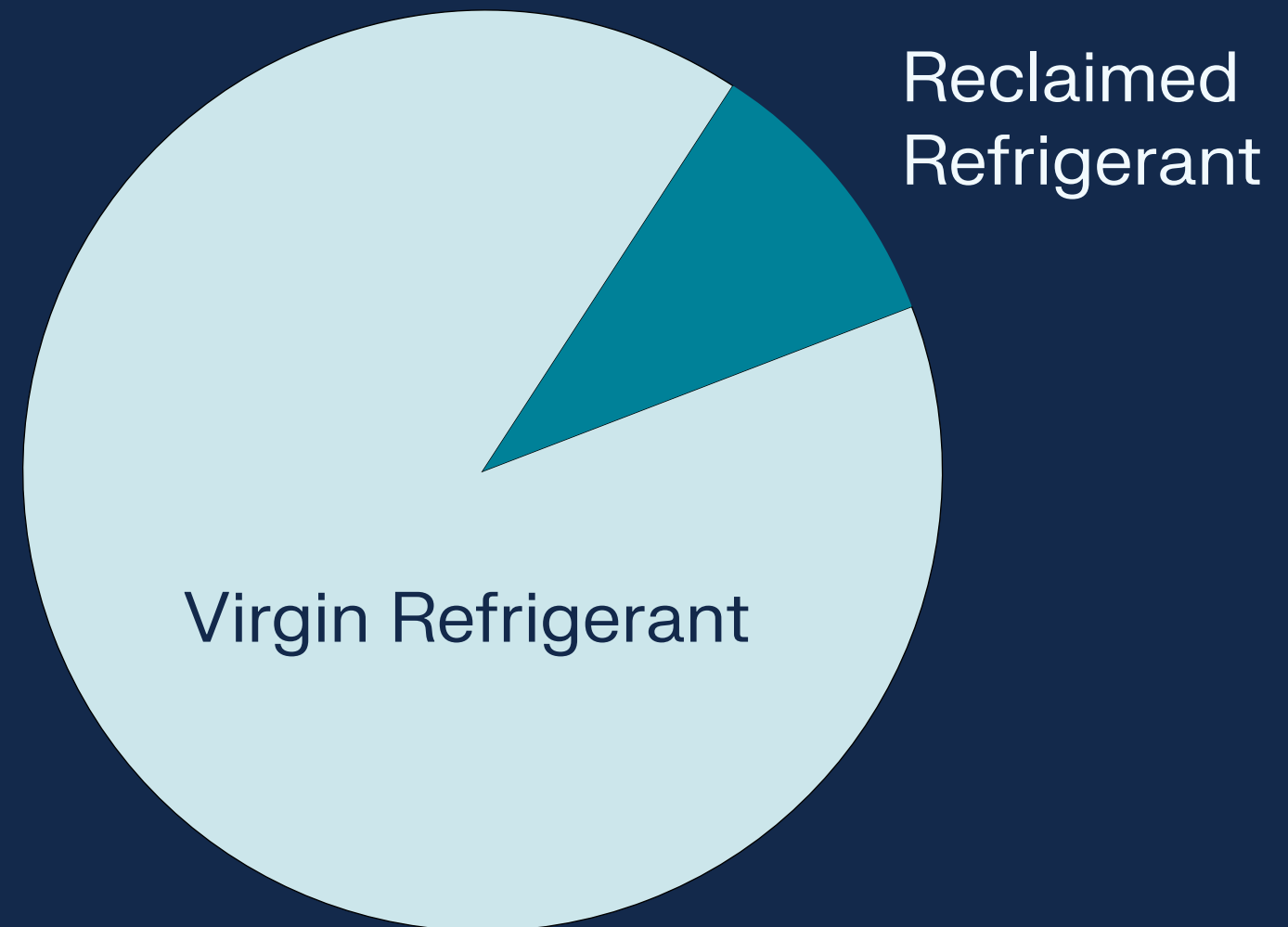
Because existing equipment that uses them will remain in service, there is **risk of a gap between supply and maintenance demand.**

Projected R-410A Supply and Demand



A key opportunity to bridge this gap?
Reclaimed refrigerant.

In the US today, they only encompass **3–10%**
of the market.

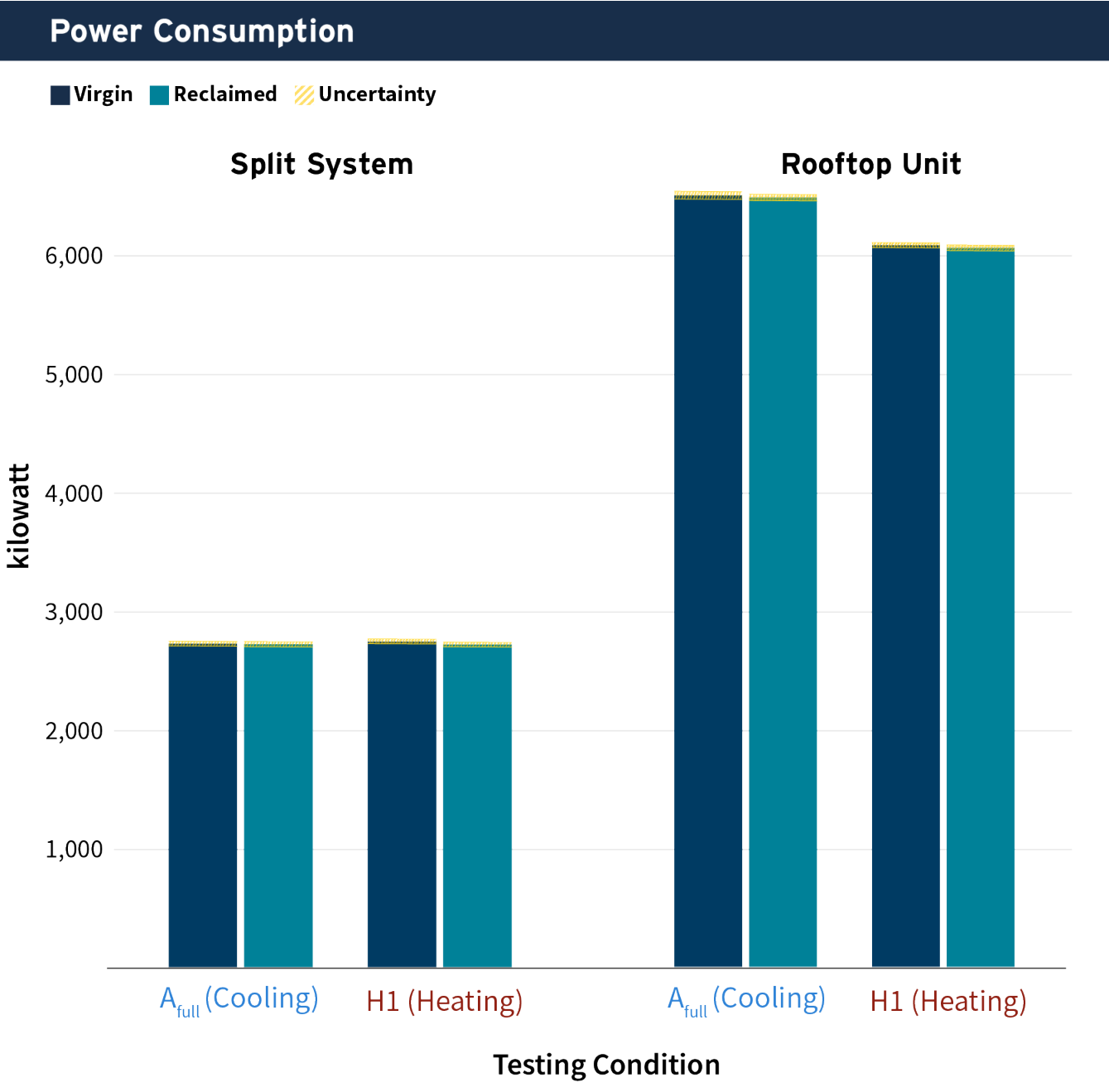
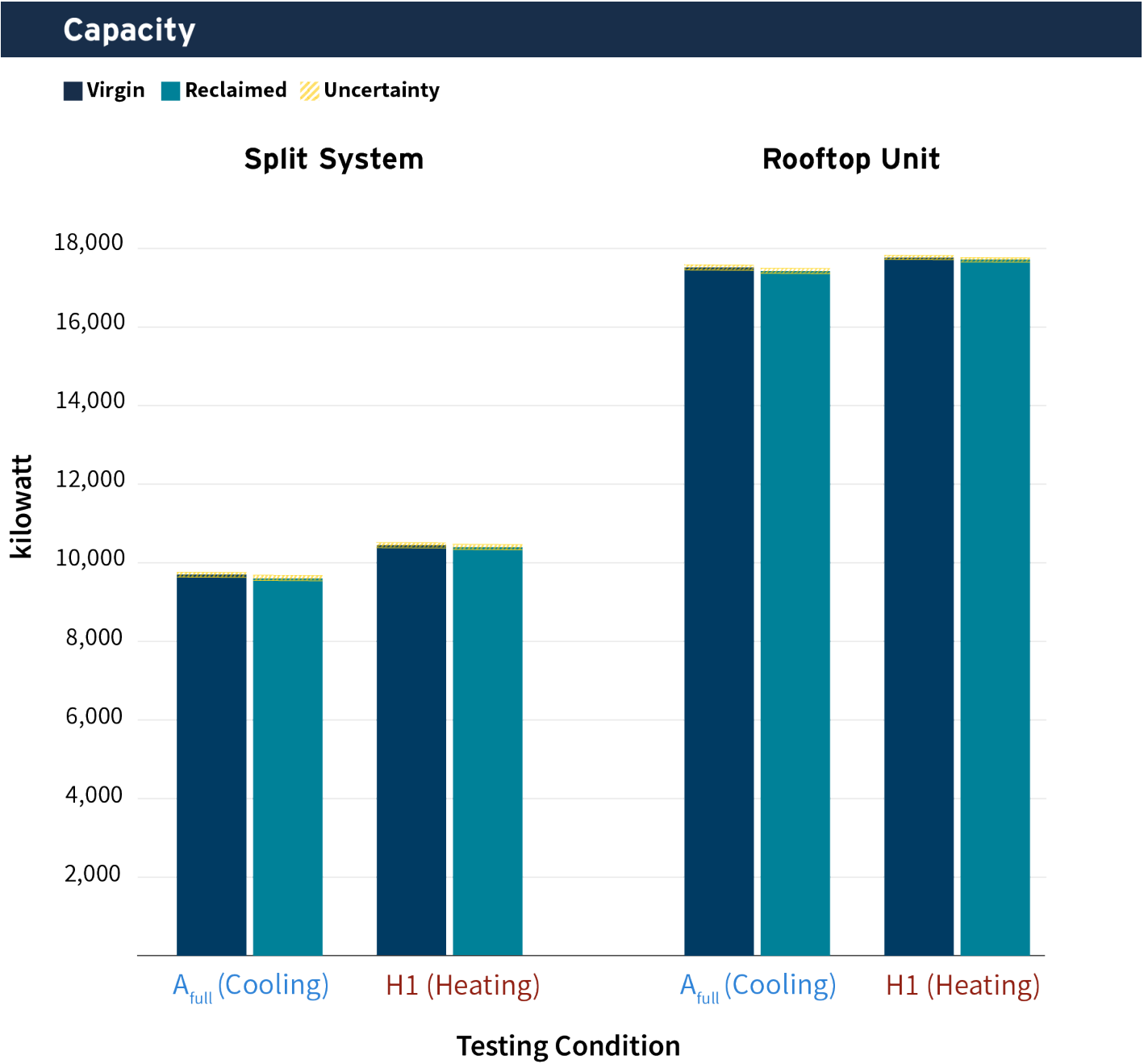


To strengthen market confidence, RMI and OTS R&D partnered to compare heat pump performance using virgin and reclaimed refrigerant.

The findings were clear.

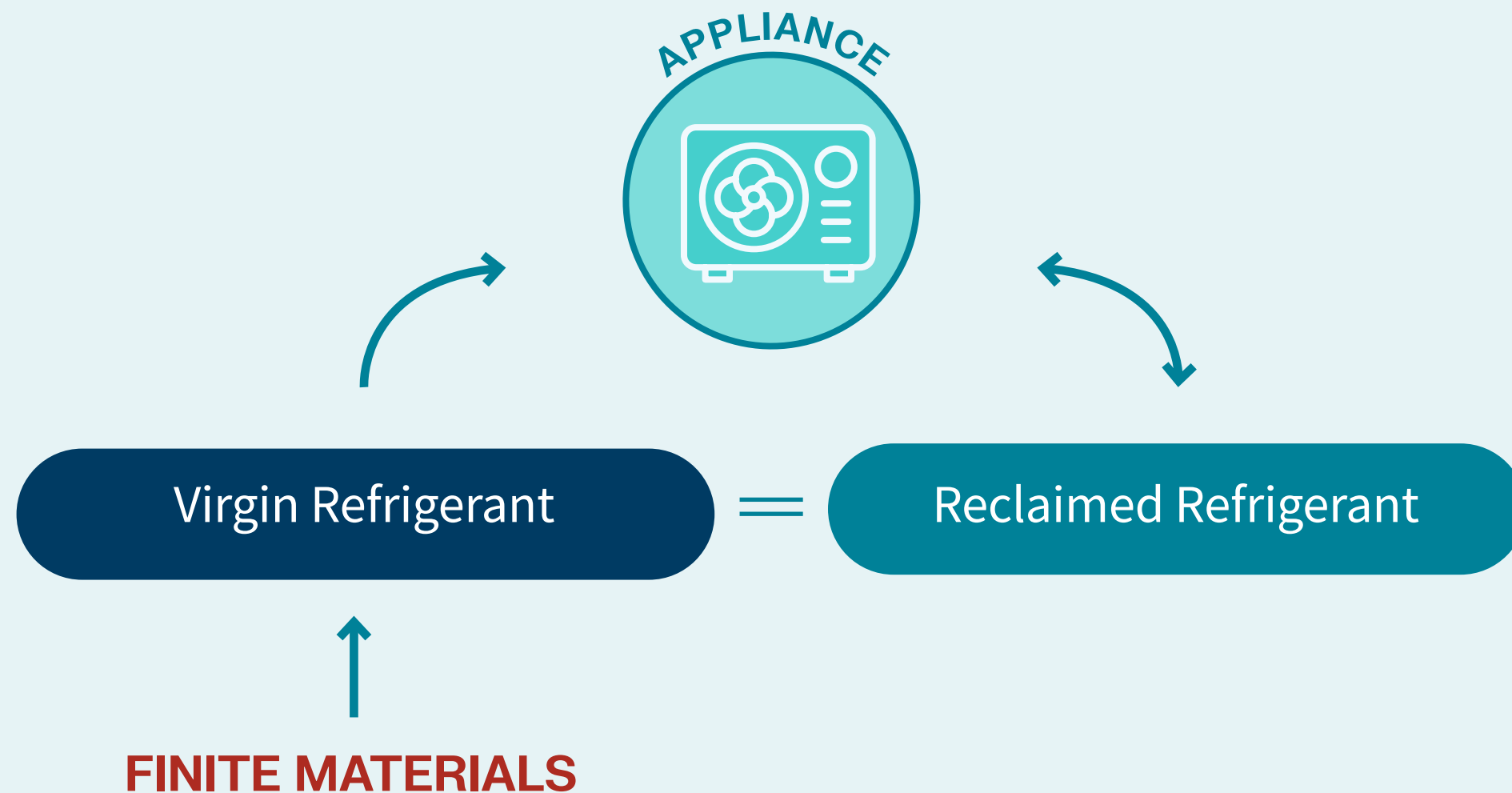


Heat pumps **perform the same** using virgin and certified reclaimed refrigerant.



Note: This is a limited set of data. See full data across all test conditions and explanation of uncertainty in appendix of report.

So, why not reclaim? Refrigerant circularity does not have to come as a performance trade-off.



- Meets AHRI 700 purity standards – making it equivalent to virgin supply
- Can be a monetizable asset when paired with buyback programs
- Lower lifecycle carbon emissions
- Creates incentive for proper recovery and reduces venting risk

What's next? Coordinated efforts across an ecosystem of stakeholders.



- **Refrigerant reclaimers and distributors:** Expand buyback programs, financial incentives, and clearer quality assurance frameworks to boost contractor participation and market confidence.
- **Contractors:** Normalize reclaimed refrigerant use in servicing and appropriate new installations, supported by continued technical education and standardized handling practices.
- **End users:** Reinforce market signals by incorporating reclaimed refrigerant into procurement discussions and service specifications.
- **Equipment and component manufacturers:** Leverage reclaimed refrigerant in servicing contracts with end users and in new equipment where applicable.
- **Policymakers:** Align incentives and reporting frameworks to recognize reclamation as a core supply-side strategy for maintaining legacy HFC systems during phasedown.