



**CPA**  
Refrigeration

A CPA Refrigeration White Paper

# The Refrigerant Market has already changed

Common refrigerants have seen price increases of up to 60% in some cases with less than 24 hours' notice. This white paper explains what is driving these changes, what they mean for your systems, and what you can do about it.

**+60%**  
**Price increase on some common refrigerants in 2026**

**2030**  
**Deadline for new installations above GWP 150**

Our refrigeration team works with businesses across the UK to manage refrigeration risk, control operating costs, and support long-term system performance.

This white paper reflects what we are seeing in the market, and what we believe businesses need to understand to stay ahead of changing refrigerant conditions.

[cpa-group.com/refrigeration](https://cpa-group.com/refrigeration)



# Prices are rising. Supply is tightening.

The refrigerant market is experiencing significant disruption in 2026. A combination of regulatory phase downs and global supply pressure has pushed prices, in some cases with little or no advance warning. This is not a temporary spike. It is the visible result of structural changes that have been building for years and is likely to continue.

Recent refrigerant price movements — UK market, May 2026

<p>R410A HVAC &amp; process cooling <b>+60%</b> Subject to quota restrictions</p>	<p>R407C Commercial refrigeration <b>+60%</b> Supply increasingly constrained</p>	<p>High Impact</p>
<p>R134a Chillers &amp; transport <b>+35%</b> Under quota review</p>	<p>R32 Split systems &amp; VRF <b>+30%</b> Demand outpacing available supply</p>	<p>Medium Impact</p>
<p>R448A R404A retrofit alternative <b>+5%</b> Lower-GWP more stable supply</p>	<p>R449A R404A / R507A replacement <b>+5%</b> Lower-GWP more stable supply</p>	<p>Lower Impact - lower GWP alternatives</p>

## WHAT'S DRIVING THIS

### Regulatory phase-down

F-Gas supply quotas have been cut to 21% of the 2009–2012 baseline. Gases that were freely available five years ago are now subject to production limits that are tightening each year

### Supply and demand imbalance

As high-GWP refrigerants become restricted, demand for remaining quota and lower-GWP alternatives increases. Supply chains have not kept pace, creating volatility across the market.

### Global raw material pressures

Increases in the cost of key raw materials, including copper and steel are adding further upward pressure on refrigerant and equipment pricing across the industry.

### Limited notice periods

Price increases are being communicated with little advance warning, making forward planning and cost control increasingly difficult for businesses reliant on refrigerant top-ups.

# The regulatory landscape. What's changing and when.

The refrigerant market changes businesses are seeing now are being driven by long-term regulatory and environmental changes across the industry. The UK F-Gas Regulations are progressively reducing the availability of higher GWP refrigerants over time, contributing to increasing market pressure on supply, availability, and cost. As future phasedown milestones approach, businesses operating refrigeration systems are likely to see continued changes across the refrigerant landscape, making long-term planning increasingly important.

## F-GAS PHASE-DOWN SCHEDULE — WHERE WE ARE AND WHAT IS COMING

- 2026** ● **Current Reality**  
**HFC supply quota reduced to 21% of the 2009–2012 baseline**  
 The phased reduction of HFC supply quotas is significantly reshaping refrigerant availability across the UK market. Supply reductions under the UK F-Gas Regulations are affecting a number of commonly used refrigerants, including R410A, R407C, and R134a. As the market continues to transition, businesses are likely to experience increasing pressure around refrigerant availability, operating costs, maintenance planning, and long-term system strategy.
- 2030** ● **Plan Now**  
**Effective ban on new installations above GWP 150**  
 The refrigeration industry continues to move towards lower GWP refrigerants as regulatory and environmental pressures reshape system design and refrigerant selection. Over time, many higher GWP refrigerants currently used across commercial and industrial applications are expected to transition towards lower-GWP alternatives, including HFO blends and natural refrigerants such as CO<sub>2</sub> (R744) and ammonia (R717). Although some regulatory milestones remain several years away, early planning can help businesses make more informed decisions around maintenance, system upgrades, and long-term refrigeration strategy.
- 2050** ● **Long Term Direction**  
**Near-total phase-out under the Kigali Amendment**  
 The long-term direction of the refrigeration industry continues to move towards lower-GWP refrigerants, supported by global phasedown targets under the Kigali Amendment. As businesses review future refrigeration investments, increasing consideration is being given to refrigerant availability, long-term compliance, maintenance strategy, and operational lifecycle planning.

GAS	TYPICAL USE	GWP	STATUS
R404A	Cold storage, food retail	3,922	NO VIRGIN GAS
R507A	Low-temp refrigeration	3,985	NO VIRGIN GAS
R410A	HVAC, process cooling	2,088	QUOTA LIMITED
R407C	Commercial refrigeration	1,774	QUOTA LIMITED
R134a	Chillers, transport	1,430	QUOTA LIMITED
R32	Split systems, VRF	675	UNDER REVIEW
R448A / R449A	R404A retrofit options	<1,500	INTERIM USE
R454B / R744	Low-GWP alternatives	<5	COMPLIANT

GWP values based on IPCC AR4 100-year figures as referenced in UK F-Gas Regulation SI 2022/519. Always verify current compliance requirements with a qualified F-Gas engineer.

# This goes beyond the cost of refrigerant

Rising refrigerant prices are one of the most visible indicators of wider change across the refrigeration industry, but cost is only one part of the challenge. Businesses operating refrigeration and cooling systems may also experience increasing pressure around operational resilience, maintenance planning, system efficiency, and long-term asset strategy. Understanding total system exposure is becoming increasingly important for long-term operational planning.

## WHAT A REFRIGERANT TOP-UP COSTS NOW VS. BEFORE — ILLUSTRATIVE EXAMPLES

Process chiller - R410A Manufacturing/process cooling	+60%	Cold store - R404A Food production/storage	RESTRICTED
illustrative annual top-up 10kg		illustrative annual top-up 20kg	
Annual top up cost - 2023	~ £80.00	Annual top up cost - 2023	~ £300.00
Annual top up cost - 2026	~ £250.00	Annual top up cost - 2026	~ £800.00 +

Figures are illustrative based on current UK market pricing. Actual costs will vary by system charge size, supplier and contract terms. R404A costs reflect reclaimed gas supply only — virgin R404A is no longer available for servicing.

## THE WIDER OPERATIONAL IMPACT

### **Unplanned Downtime**

Reduced refrigerant availability and increasing refrigerant costs can place additional pressure on maintenance planning and system uptime. In critical applications such as process cooling and food storage, the operational impact of downtime often outweighs the direct cost of the refrigerant.

### **Reduced system efficiency**

Low refrigerant charge levels can reduce system efficiency, increase energy consumption, and affect overall cooling performance. Over time, the operational cost associated with reduced efficiency can exceed the direct cost of the refrigerant loss itself.

### **Compliance exposure**

Operating systems using refrigerants with increasingly limited supply availability can create additional challenges around maintenance planning, compliance, and long-term system support. Businesses also need to ensure ongoing compliance with mandatory F-Gas requirements, including leak testing and record keeping.

### **Parts & equipment obsolescence**

Ageing refrigeration systems operating on legacy refrigerants may experience increasing pressure around maintenance costs, refrigerant availability, and long-term serviceability. As manufacturers continue transitioning towards lower-GWP equipment, long-term parts support for older systems may become more challenging.

### **Budget unpredictability**

Rapid changes in refrigerant pricing can create additional challenges around maintenance forecasting and operational budgeting. Businesses operating refrigerant-intensive or ageing systems may experience increased exposure to unplanned operating costs over time.

### **Environmental liability**

High-GWP refrigerant losses can contribute significantly to a business's direct carbon emissions. As organisations place greater focus on sustainability reporting and environmental performance, refrigerant management is becoming an increasingly important operational consideration within Scope 1 emissions.

**A refrigerant leak that cost £100 to fix three years ago may cost £800 or more today, before labour, before downtime, and before any compliance consideration. The financial case for proactive system management has never been stronger..**




# Understanding your risk position

The impact of refrigerant market changes will vary depending on system design, refrigerant type, equipment age, and overall operational dependency. Understanding these factors can help businesses assess system exposure and make more informed decisions around maintenance strategy, lifecycle planning, and future investment.

## SYSTEM RISK FACTORS - WHERE DOES YOUR SYSTEM SIT?

RISK FACTOR	RISK LEVEL	EXPOSURE
<b>Uses R404A or R507A</b> Virgin supply banned — reclaimed gas only, limited availability	HIGH	
<b>Uses R410A or R407C</b> Subject to 2025 quota restrictions — prices rising sharply	HIGH	
<b>System age over 10 years</b> Likely designed around refrigerants now being phased out	MEDIUM	
<b>Known or suspected leak history</b> Ongoing refrigerant loss compounds cost exposure significantly	MEDIUM	
<b>No planned maintenance programme</b> Reactive management increases both cost and downtime risk	MEDIUM	
<b>No system assessment in the last 2 years</b> Current exposure and transition options may not be fully understood	LOWER	

## WHAT YOUR RISK POSITION MEANS FOR YOUR DECISIONS

 <p><b>HIGH EXPOSURE</b></p> <p>Transition planning is urgent</p> <p>You are operating in a restricted or severely constrained supply environment. Waiting for a system failure or an unavailable refrigerant to force your hand will significantly limit your options and increase cost.</p>	 <p><b>MEDIUM EXPOSURE</b></p> <p>A planned approach gives you choices</p> <p>Your system is viable today but the window for planned, cost-effective transition is narrowing. Acting in the next 12–24 months puts you in control of timing, budget and specification</p>	 <p><b>LOWER EXPOSURE</b></p> <p>Maintain your advantage</p> <p>You are in a stronger position. The focus now is on maintaining system efficiency, eliminating leaks and ensuring your transition pathway to 2030 compliant refrigerants is clearly mapped.</p>
<p><b>Prioritise a system assessment now</b></p>	<p><b>Review your options before 2027</b></p>	<p><b>Monitor, maintain and stay ahead</b></p>

The businesses best placed to manage these changes are typically those that understand their system exposure clearly and plan ahead. Page 6 outlines the transition options available and the factors businesses should consider when reviewing long-term refrigeration strategy.

# There is no single answer. But there is a right one for your system.

How businesses respond to refrigerant market changes will depend on system design, refrigerant type, operational dependency, budget, and long-term operational strategy.

There are several broad transition pathways available, each carrying different implications for cost, disruption, efficiency, and future compliance requirements. Understanding which option is most appropriate for a particular application is where CPA Refrigeration's engineering and lifecycle expertise can provide significant value.

## THE THREE TRANSITION PATHWAYS

1

### Drop in refrigerant replacement.

Swap to lower GWP alternative with minimal system modification.

Lowest Disruption

#### WHAT IT INVOLVES

Replacing the existing refrigerant with a compatible lower-GWP alternative — for example R448A or R449A in place of R404A, with minor component checks and oil change where required.

#### BEST SUITED TO

Systems in good condition using R404A or R507A that need to move away from restricted refrigerants quickly. A practical near-term solution that extends system life without major capital spend.

#### CONSIDERATIONS

Not all systems are compatible. Performance characteristics may differ slightly. This is an interim solution — the replacement refrigerant may itself face future review as 2030 approaches.

2

### System retrofit

Modify existing equipment to operate with a next generation refrigerant

Planned Investment

#### WHAT IT INVOLVES

Upgrading key system components — compressors, expansion valves, controls — to enable operation with a compliant lower-GWP refrigerant such as R454B or R32 blends.

#### BEST SUITED TO

Systems with a sound mechanical structure but using a refrigerant approaching end of compliant life. Offers a longer-term solution than a drop-in replacement without the full cost of replacement.

#### CONSIDERATIONS

Requires engineering assessment to confirm viability. Capital cost is higher than a drop-in. Downtime for modification needs to be planned carefully around operational requirements.

3

### Full system replacement

Replace end of life equipment with 2030 compliant technology

Strategic Decision

#### WHAT IT INVOLVES

Full decommission and replacement with new equipment designed around compliant refrigerants — HFOs, CO<sub>2</sub> (R744), or ammonia (R717) for larger industrial applications.

#### BEST SUITED TO

Older systems approaching end of mechanical life, or where the cost of ongoing maintenance and refrigerant supply is no longer viable. The right long-term answer for 2030 compliance.

#### CONSIDERATIONS

Highest capital cost but lowest long-term operating risk. Lead times on new equipment are increasing — early planning is essential to avoid being forced into emergency procurement.

The right pathway depends on your system, your timescales and your budget. A CPA Refrigeration system assessment gives you the information you need to make that decision with confidence, before market conditions make it for you.

# Practical steps you can take today.

Understanding the market is one thing. Knowing what to do about it is another. The steps below are ordered by priority. The businesses that manage refrigerant market changes most effectively are those that get ahead of them rather than react to them.

## YOUR ACTION PATHWAY - IN ORDER OF PRIORITY

### 1 Know what refrigerant your systems uses

Check your F-Gas logbook and service records. Identify the refrigerant type and total system charge. If your charge exceeds 5 tonne CO<sub>2</sub>e, mandatory leak checks already apply. If you don't know what refrigerant you have, this is your first action.

Cross-reference with the refrigerant status table on page 3

### 2 Understand your compliance position

Confirm your F-Gas leak check schedule is up to date and your logbook is current. If your system uses R404A or R507A, ensure you understand the restrictions on virgin gas supply and what reclaimed gas availability looks like in your area.

### 3 Fix leaks — rather than at the next service

At current market prices, a system losing 2kg of R410A per year is costing significantly more than it was 12 months ago — and that cost will only increase. Every kilogram of refrigerant lost is money spent unnecessarily. Leak detection and repair should be a priority regardless of your longer-term transition plan.

Even small leaks carry significant cost at 2026 refrigerant prices

### 4 Get a system assessment

If you haven't had a formal assessment in the last two years, or if your system uses a restricted or quota-limited refrigerant, get one now. A system assessment gives you a clear picture of your current exposure, your transition options and what a planned approach would cost versus an unplanned one.

CPA Refrigeration system assessments cover refrigerant status, leak history, efficiency and transition options

### 5 Make a transition decision

Use the transition pathways on page 6 as your framework. Decide whether a drop-in replacement, retrofit or full system replacement is the right route — and build a timeline and budget around it. Equipment lead times are increasing. Acting with 12–18 months of runway gives you choices. Acting in a crisis does not.

### 6 Plan your maintenance around your transition timeline

Once a transition plan is in place, align your maintenance programme around it. Avoid overinvesting in systems nearing replacement — but equally, don't under-maintain systems expected to remain operational for years to come.

The cost of acting now is often significantly lower than the cost of being forced to act later. Refrigerant availability, equipment lead times, and service capacity are all becoming increasingly constrained. The businesses best positioned for 2030 are already making decisions today.

# Engineered support for every stage.

CPA Refrigeration engineers work with businesses across the UK to manage refrigeration risk, reduce operating costs and plan for long-term system performance. Whether you need to understand your current exposure, fix an immediate issue or plan a full transition, we have the expertise to support you at every stage.

## WHAT WE DO



### System assessments

A thorough assessment of your refrigeration system — covering refrigerant status, leak history, efficiency, compliance and transition options. The starting point for any informed decision.



### Leak detection & repair

Identifying and fixing refrigerant leaks quickly to reduce ongoing gas loss, control costs and minimise environmental impact. Particularly critical at current refrigerant prices.



### Planned maintenance

Structured maintenance programmes that keep your systems performing efficiently, reduce the risk of unplanned downtime and extend operational life — aligned to your transition timeline.



### Efficiency improvements

Identifying and implementing improvements that reduce energy consumption, improve cooling performance and lower overall operating costs — independent of refrigerant transition decisions.



### Refrigerant transition support

From drop-in replacements to full system retrofits, our refrigeration team manage the transition process — specifying the right solution, minimising downtime and ensuring compliance throughout.



### Long term planning

Strategic advice to help you plan ahead — aligning refrigeration investment decisions with your operational requirements, budget cycles and the regulatory milestones that matter to your business.

## WHY BUSINESSES WORK WITH CPA REFRIGERATION

### ENGINEERING DEPTH

Our F-Gas registered team of engineers understand refrigeration systems at a technical level. We give you an accurate picture of your situation, not a sales pitch.

### HONEST GUIDANCE

Our approach is based on what is right for your system — not what generates the largest project opportunity. Long-term partnerships matter more to us than short-term wins

### LONG TERM SUPPORT

We stand behind our work. From initial assessment through to transition and ongoing support, we are your long-term engineering partner.

**Is your refrigeration system ready for what's coming?**

**Speak to our refrigeration team about a system assessment. We'll help you understand your current exposure, your options and the most cost-effective path forward for your business.**

Call us  
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# Understanding Refrigerant Market Changes

