

R22 REFRIGERANT PHASE OUT:

DO YOU NEED TO
REPLACE YOUR AC?



ARISTA



R22 refrigerant phase out:

The facts you need to know and the options for system owners

If you have older HVAC or commercial refrigeration equipment, there are regulatory changes happening that you must plan for, or face expensive consequences. R-22 refrigerant (also known as Freon) has become illegal to manufacture or import in the US.

That means only reclaimed R22 is available for use in repairing systems, and that small supply is becoming very expensive. How will the R-22 refrigerant phase-out impact your AC or commercial refrigeration equipment and the cost to maintain it? If your system needs repairs, it will cost increasingly more to fix, and eventually it will become impossible to get R22 at all.

As a homeowner or business owner who may not be an HVAC expert, how do you decide on a plan of action? Is now the time to replace your older equipment with modern systems that use new refrigerants? Is converting older systems to use new refrigerants a viable option? Or can you hold out with what you've got until your system breaks down?

Read on for helpful information and advice from the experts.

What's behind the R-22 refrigerant (Freon) phaseout?

The dangers of older refrigerants have been known for decades. The industry standard refrigerant used in air conditioning and refrigeration equipment for many years was R-22 (also known as Freon),

a hydrochlorofluorocarbon gas, or HCFC. Back in the 1970s it was discovered that HCFC gases were quickly depleting the Earth's ozone layer, and an international treaty called the Montreal Protocol called for a worldwide phase-out of these types of refrigerants.

Since then, the US Environmental Protection Agency (EPA) has been regulating the availability and use of R-22, gradually decreasing the quantities that can be manufactured or imported. As of January 2020, the R-22 refrigerant phase-out is complete.

R-22 supply is limited and it's likely that prices will skyrocket.

Owners of older AC systems or commercial refrigeration equipment using R-22 have a decision to make. It's smart to plan your strategy now rather than waiting for a breakdown, when you may have an emergency on your hands.

R-22 refrigerant phase-out: 3 options for equipment owners

Let's review the 3 options you have for your older AC equipment that uses R-22 refrigerant.



OPTION 1

Stay the course until you are forced to make a change.

If your equipment is in good shape, this option may be viable for a short time. However, there are risks you must be aware of.

THE UPSIDE:

Cost. This is (probably) the least expensive option in the short term. If your system is under eight years old, free of refrigerant leaks, properly maintained and operating well, it's possible that it could last for years without needing more refrigerant.

Take note of the "probably" in the previous statement: refrigerant leaks can happen at any time, especially to an older system or a system that may have corrosion on the coils. If a leak occurs, you'll need to consider one of the other two options at that time.

Our recommendation: if you choose this option, regular inspections, preventative maintenance and coil cleaning are imperative.

THE DOWNSIDES:

Increasingly expensive repairs. R-22 will continue to increase in price, driving up the cost of repairs. If your system does need any repair that involves replacing refrigerant (many types of repairs do), that repair will become more and more expensive, because R-22 will become more expensive and harder to obtain.

Facing long waits for an emergency replacement.

Come peak air conditioning season, you'll be in line with everyone else on an emergency basis who has to replace the equipment or modify the existing equipment to accept alternative refrigerants. If your system fails, you could be forced to operate without AC for an extended period of time, or worse, be forced to close your business while you wait.

Costly repairs might not make sense for an older system.

Even if your system does remain leak-free, there's always the chance you'll need other expensive repairs that don't involve adding refrigerant. In that event, we would discourage pouring money into a system that is nearing obsolescence, especially when you consider the added efficiency you gain with a new system.

Risk of hazardous replacement refrigerant.

The EPA has already issued warnings about contaminated or counterfeit R-22 refrigerants being sold by unscrupulous vendors. These can be hazardous, possibly causing fires or explosions. As the price of R-22 goes up, that risk will increase. Never buy refrigerant from anyone other than a trusted HVAC supplier.



OPTION 2

Retrofit your existing system to use a new refrigerant.

Since the R-22 phase out has been known for some time, some suppliers have been developing new refrigerants to be compatible with older systems. While they are not an option for all equipment and in all situations, in some cases you may be able to convert your older system to use one of these new refrigerants (this process is called retrofitting). However, there can be significant risks to doing so. Here are the pros and cons to consider.

THE UPSIDES:

Delaying the expense of replacement.

Especially for equipment that's still in good condition, you may be able to delay replacing it (and laying out the cost of buying new equipment) by retrofitting it to use a new refrigerant. This option can give you time to plan for the expense of replacing your entire system.

Less expensive repairs. Once converted to use the new refrigerant, any repairs that require refrigerant replacement will not be as expensive, since the new refrigerants are less costly, at least in the short term. However, keep in mind that the cost of replacement refrigerants may also rise in response to market conditions.

Short-term solution. Retrofitting might be a viable option if you're moving to a new location within a few years, since it may not make sense to invest in a new system that you won't use for very long.

THE DOWNSIDES:

Technical limitations may prohibit retrofitting.

Retrofitting is not possible for every system. You'll need to consult with an HVAC expert and have a thorough inspection to determine if your system can be converted to use another refrigerant.

Comfort may be compromised. When a retrofit can be done, it can often reduce the cooling capacity of the system. That means, if your system was already underperforming (not cooling well, not removing enough humidity, or cooling inconsistently) then this is not a smart option for you. You'll end up with poor comfort conditions.

Higher energy costs. The loss in capacity will result in longer run times for your equipment, increasing your energy needs and driving up your electric bills.

Retrofitting is not as expensive as a complete replacement, but there can be a significant cost. If the equipment is older, you might be spending money on a system that won't last much longer.

Voiding your warranty. If your system is currently covered under the manufacturer's warranty, you run the risk of voiding that warranty by changing the refrigerant. Most equipment manufacturers are not supporting the use of new refrigerants in equipment designed for R-22.



OPTION 3

Replace your equipment with a modern system that uses new refrigerants.

The reality is that all your R-22 based equipment will have to be replaced. But is it necessary to do it now?

THE UPSIDES:

Replacing your equipment that uses R-22 proactively is a smart move for a number of reasons:

Eliminating the risk of an expensive emergency repair. If your old system breaks and you need replacement R-22 to repair it, that repair will be much more expensive than what you have paid in the past for the same work.

You won't be without air conditioning. If you must replace your system on an emergency basis, you could be waiting some time without air conditioning for a new system to be ordered and installed. How will that impact your business or your family? If you replace proactively, you can replace on your schedule. You can plan for the expense, and you won't risk suffering through a heat wave with no AC.

New replacement systems are more energy efficient and less expensive to operate.

Especially if you have an air conditioner that's more than 10 years old, the cash you save each month can be substantial and can add up very quickly. To figure out how much you could save with a new, energy efficient system, check out this calculator:

[HVAC OpCost](#)

It's the environmentally responsible thing

to do. Discontinuing the use of harmful HCFC chemicals is not only beneficial for future generations, but your customers and your employees will appreciate your efforts to preserve our planet.

THE DOWNSIDE:

The expense. The big downside, of course, is the upfront cost of replacing your system now. It can be difficult to make that decision when your system seems to be working fine, even if it is aging.

Need help deciding which option is right for you?

Does your current HVAC contractor have an R-22 phase out strategy? If not, that should be a red flag. You need to know that they are on top of the situation, and that their techs are trained in what to do if your older AC equipment needs repair.

Please feel free to reach out to us at any time to discuss the R-22 phase out and how it will impact your business. Arista's experts can help by evaluating the condition of your equipment, and helping you to develop a replacement plan and schedule that will work for your budget.



ABOUT ARISTA

Whether you're responsible for the installation of a new HVAC system or inherited legacy equipment, Arista has the experience to service and maintain any system throughout its lifecycle. Across the tri-state area, we're recognized as one of the region's most respected and referred HVAC experts. When you purchase a preventive maintenance service agreement from Arista, you're backed by an industry leader with that has earned its reputation through decades of trustworthy business conduct and quality service.



Peace of mind at a fair price

Your account is managed by a senior Arista technician and backed by an expert staff of over 160 highly trained professionals. Arista boasts a comprehensive program of continuous staff training and professional development on state-of-the-art practices and processes.

Arista clients also enjoy these benefits:

- Quick-to-respond, accessible workforce and a fleet of 100+ vehicles
- 24/7 emergency standby service
- 30,000 sq. ft. corporate warehouse facility stocked with over 55,000 parts
- Industry recognition as the only NY state company to earn both the prestigious MSCA STAR and GreenStar designations
- LEED Accredited Professionals to assist in making smarter HVAC choices

Questions? Call Arista today.

We hope you've found this guide to be a useful reference.

We invite you to call us for a quote on your equipment purchase or service needs. We think you'll agree that hearing what we have to say will be one of the best decisions you make in researching your HVAC needs. Reach an Arista HVAC specialist today at 718-937-4001 or email info@aristair.com.



