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I'm sure this has been a topic in many Condo Board meetings, or even on a personal level dealing with your own home.

Repair or Replace: What to consider when evaluating your HVAC equipment

◀ A good rule of thumb to follow is if your HVAC system is less than 10 years old and is in good working order, repair the existing system. With a proper maintenance program in place and having a qualified contractor by your side, you can consult them for potential repairs, estimated costs, and budget future repairs. Keeping track of your units' warranty information and understanding the specifics is a key component as well. For example, compressors are usually a 5-year warranty, heat exchangers are typically 10 years on aluminum, and 20 years on stainless steel models.

The average useful service life of an HVAC unit is 15-20 years. Units located outdoors typically have a shorter life expectancy and with poor maintenance, this number decreases dramatically. Your contractor should understand the type and frequency of service that is required by the manufacturer. Following these manufacturer recommendations will prolong the life of the unit and will have it running at its peak performance.

Unfortunately, it is inevitable that one day you will have to replace

your HVAC system and sometimes replacement costs come sooner than expected. I have been in many meetings and situations where there is no plan in place for the replacement of an HVAC system.

Units are typically out of sight and out of mind until it breaks down and then a hasty decision needs to be made on a costly repair to an antiquated unit. Things to consider when evaluating an HVAC unit is its age, condition and payback. Condo Boards are encouraged, along with your Property Manager, to schedule yearly meetings to discuss the HVAC system within your building. Invite your contractor to these meetings, ask questions and they can educate you on current technology, as well as more efficient units on the market. It is better to plan for replacement now, as it's less expensive than emergency replacements.

If your system is in poor condition, not operating as intended and wasting energy, then it is best to replace the existing system. There are many incentives for replacing an older unit with a more efficient one. These could be incentives from local utility companies, government tax programs and overall lower >>>

»» operating costs of running the unit. By planning ahead, you can look at options to replace more than one unit at a time. You will gain extra cost savings in the labour category and potential crane costs on the project.

If you currently live in or manage an older building, one other thing to consider when planning for cooling replacement is the type of refrigerant being used.

In 1987, developed nations came together to establish the Montreal Protocol, an international treaty designed to phase-out the production and importation of ozone-depleting substances, including harmful chlorofluorocarbons (CFCs). The agreement allowed for certain ozone depleting substances to continue in use for a limited period, including hydrochlorofluorocarbons (HCFCs, e.g. R-22 refrigerant gas), which are used in the maintenance or servicing of refrigeration, air conditioning and heat pump equipment.

In Canada, more than 95% of commercial and residential air conditioning units and more than 50% of commercial refrigeration equipment operate on HCFC refrigerants (primarily R-22). Canada is now moving forward with regulatory plans to eliminate the use of HCFCs and dispose of the surplus inventories that remain in use. By

2020, the annual allowable amount of HCFCs will be reduced by 99.5% and no new HCFC equipment is to be manufactured or imported into Canada.

Retrofitting existing cooling equipment with a “drop-in refrigerant” does come at a 10-15% reduction in total cooling capacity (loss) and is not recommended by some manufacturers to perform. Replacing with newer high-efficiency rooftop units can be up to 50% more efficient than the existing one. Energy consumption is lowered, and you gain warranty on parts, labour and the major components of the equipment.

There is no perfect formula to predict when an HVAC unit will break down. Having a good maintenance program in place, along with the expertise of an HVAC contractor, you can be confident that you are making the best decisions for your specific situation. Above all, understand that you do have some control over how you spend your money when deciding whether to repair or replace your unit. ▀

Piero Quaglia a Licenced Refrigeration/Air Conditioning Mechanic and Gas Fitter 1 by Trade. I'm proud to say I have been with Naylor Building Partnerships since 2000, spending 14 of those years in the field providing service to our customer base. I transitioned into the office to oversee our Mechanical Service Group in 2014 where we are growing our business every year.

