WRITE IT OFF

Recent Tax Legislation Means the Time Is Now for Commercial HVAC System Upgrades

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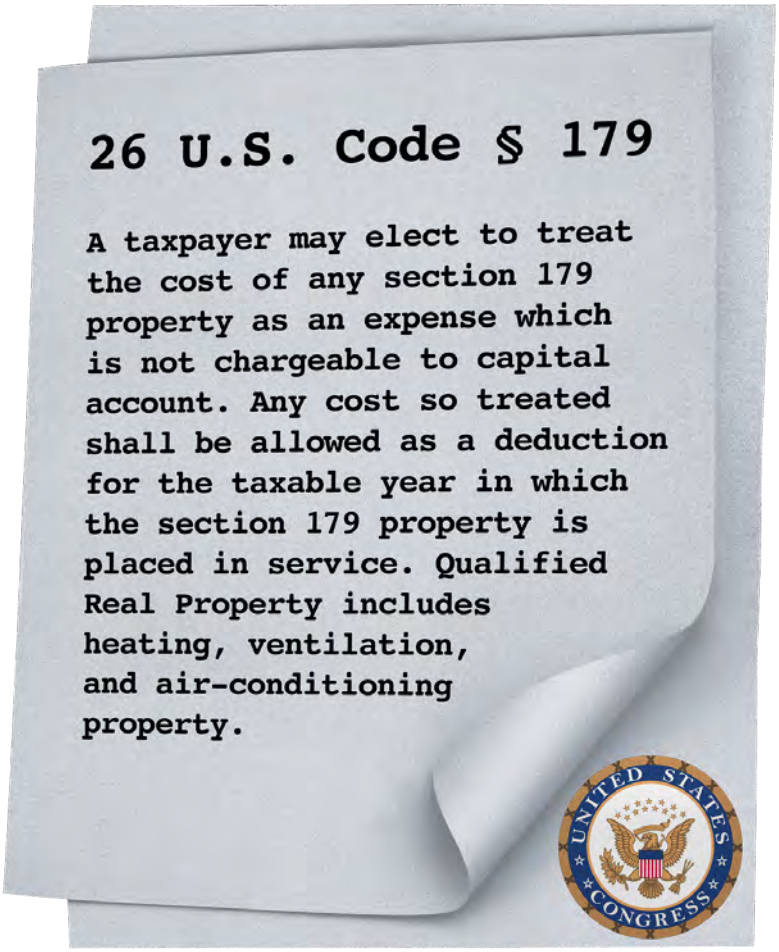
With expense deductions now available and new standards for rooftop air conditioners, energy saving technologies become practical must-haves for commercial building owners. An energy audit is where it starts.

Say Hello to a Tax Deduction



The changes to federal law became effective on January 1, 2018, but few small business owners are yet aware of the impact these shifting regulations will have on their bottom line. The big reveal? Federal tax code now means all qualified HVAC products can be expensed *at their time of purchase and installation*. Under Section 179 of the IRS tax code, and with HR3515, the 2017 HVAC Expensing and Technology (HEAT) Act, what used to take years to deduct fully as a business expense can now be written off entirely in the first year.

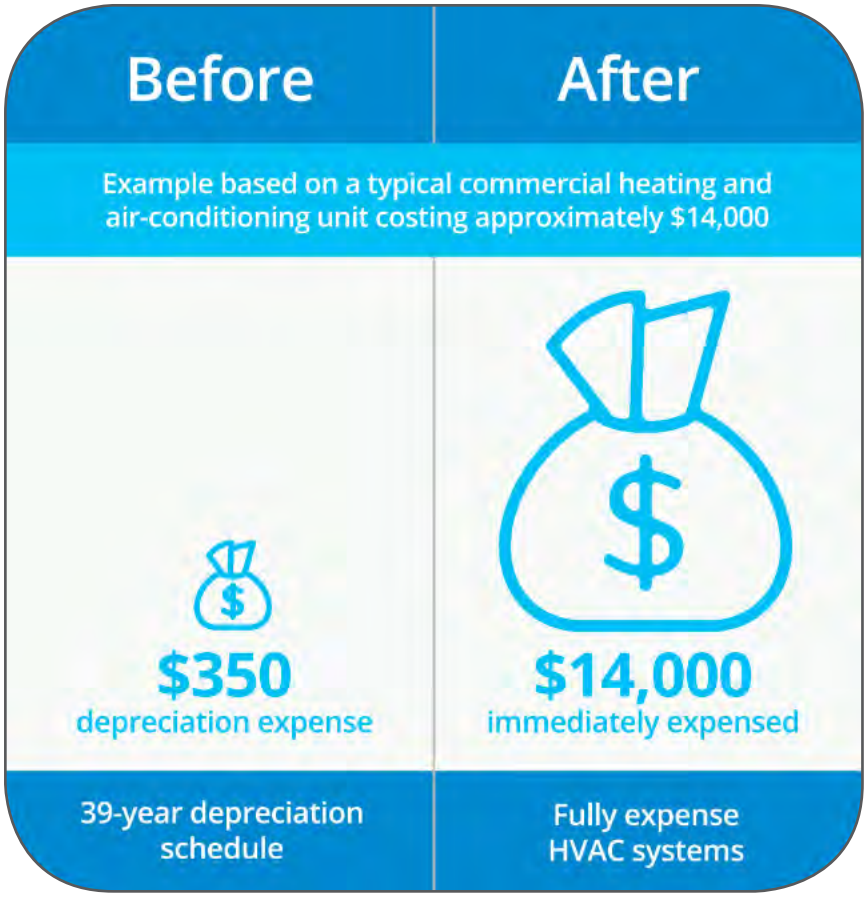
It began with HARDI. Members of the nonprofit Heating, Air Conditioning and Refrigeration Distributors International have worked hard to demonstrate for lawmakers why tax incentives for not only HVAC equipment but also short-term capital investments would help not only the American small business community but also the economy at large. As a bipartisan bill introduced by Representative Pat Tiberi (R-Ohio) and Ron Kind (D-Wisconsin), its context allows commercial property owners to write off the cost of qualified HVAC repairs and upgrades for the taxable year the equipment is put into service. Furthermore, HR3515 also expands the overall expensing cap of small businesses, moving it from $500,000 to $5 million, with a phase-out beginning at $20 million. Existing depreciation schedules for real property are also maintained.

As Jon Melchi, outgoing HARDI Government and External Affairs Vice President expressed, "From the expansion of [section] 179 expensing to the inclusion of the HEAT Act, there's a lot to be excited about."

"Not only do businesses get to expense more of their capital improvements, but HVAC is now included in that."

HARDI also provides some practical examples of the savings involved. A year ago, if you as a small business installed a new rooftop HVAC unit at a cost of $14,000 (for both equipment and labor), only approximately $350 could be deducted each year for 39 years following as a depreciation expense. That's not much. Today with the new legislation, you would be able to deduct the entire $14,000 from its taxable income the year the new HVAC is purchased and installed. Using the top marginal tax rate applied to this purchase, that translates into $5,180 in money that would previously have gone to Uncle Sam in taxes. Now it stays in your pocket!

In addition to the tax savings, this legislation also creates a new set of environmental standards to lower carbon emissions and regulate HVAC usage. While aspects of this program were announced at the end of 2015, they are only now going into effect. Standards for commercial rooftop air conditioners are changing, with one phase going into action now, and the next on January 1, 2023. The good news? These new regulations are expected to save a building owner more than $5,000 over the expected life of your rooftop unit.

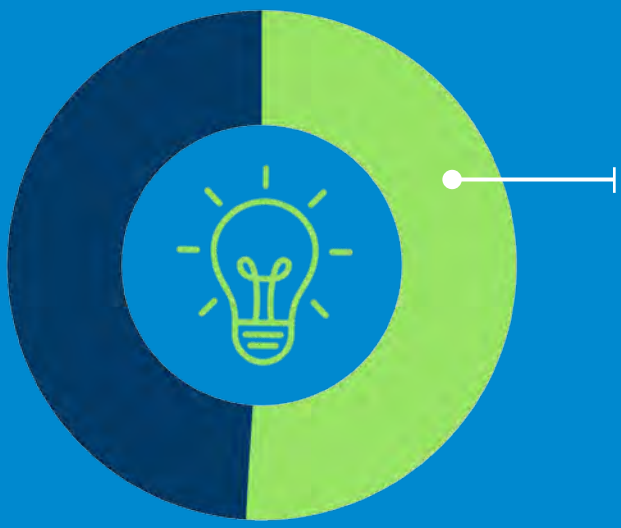


What does it all mean? Given that heating and cooling account for more than 51% of commercial

building energy use, there's never been a better time to get a handle on utility costs with new, ultra-efficient HVAC equipment upgrades. Installed and serviced properly by a licensed professional, these HVAC improvements will boost indoor comfort while ensuring less energy waste all year round.

What Kinds of HVAC Upgrades Should You Consider?

Before considering any new purchase, it's time to conduct a complete commercial energy audit. This provides an opportunity not only to assess the energy needs of your indoor environment, but also to pinpoint existing problem areas and review component-by-component performance and functionality. Physical inspection should cover every aspect of your HVAC system including air filters, cooling towers, supply ducts, return ducts, and face and bypass dampers. Energy audits should include a review of utility bills and patterns of energy use, to be analyzed for possible energy savings.



Heating and cooling account for more than 51% of commercial building energy use

Basic questions this audit needs to address should include:

- What is your current HVAC system using in terms of energy, and how much is it costing?
- Where are the most efficient areas of your commercial building, and where are the least?
- What time of year are you spending the most on utility costs, and at what time of day?
- Which system are cost you the most money, and which the least?
- Are there health issues arising from any of your HVAC equipment?
- Are there any areas of your HVAC system not in compliance with current laws and regulations surrounding heating and cooling?

Only after your commercial energy audit is complete can you begin to assess whether outright replacement or simply equipment upgrades and maintenance tasks are in order. Don't panic: you may just need a retrofit. The Department of Energy has determined that users can save as much as 35% in outright energy costs just by swapping out used or worn parts and replacing them with newer, more efficient HVAC components. That translates into real savings, even without a completely new system.

Recent Developments in Energy Efficient Technology

From smart thermostats to low emissivity windows, there are plenty of ways to reduce your energy footprint using today's HVAC technology without sacrificing comfort. Furthermore, each of these upgrades can potentially reduce your utility expenses by quite a bit. Consult a professional HVAC contractor to determine which ones will prove most cost effective for your commercial building.

Evaporcool

Here in Southern California, the summers seem to be only getting hotter, making low cost air conditioning even more important. That's why we love the new product Evaporcool. It pre-cools the outdoor air to be used before it enters

your system's condenser coils, without adding any humidity to your indoor air. Attaching magnetically to your existing HVAC system, this patented technology has been shown to dramatically improve system-wide energy efficiency. Furthermore, by reducing the peak energy load on your air-cooled HVAC, it lowers compressor head pressure, reducing strain while lengthening the life cycle of your equipment. That's good, green energy.

Smart Thermostats

With multiple employees and complicated schedules, turning down the thermostat when no one will be in the conference room seems almost an impossible task. Yet, most commercial building owners are spending far too much heating and cooling empty rooms most of the year. Luckily, a new generation of automated light and thermostat controls might change all that. The days of the rigid, 7 day programmable thermostat are over. Remotely managed by your phone, PC or tablet, or on site by a maintenance department, today's smart commercial thermostats can not only be easily integrated with many current HVAC systems, but also communicate with other equipment to ensure variable indoor temperature control in line with the needs of your occupants, 24 hours a day.

Space programming changes can be easily adjusted, without onsite facilities staff required to show up, assess the problem and make the additional alterations. Furthermore, full building automation is not required, much to the relief of the average small business owner.

Demand-controlled ventilation (DCV)

Using automatic controls to adjust the volume exchange of outdoor air with that found inside, this kind of ventilation works in response to occupant choice. Motion or C02 sensors help to establish "intelligent airflow management," allowing for optimized heating and cooling usage. With obvious advantages for spaces where occupancy ranges widely on a day to day basis, DCV has become a popular HVAC feature for use in schools, hospitals, conference centers and auditoriums.

These are just a few of the technologies available to the commercial building owner interested in using less energy and saving more money year round. Get the facts from your HVAC consultant on these new tax benefits and

possible upgrade or retrofit options. After all, you can count on Air-Tro to provide you with ways not only to improve indoor comfort for your commercial building, but also to boost your “wallet comfort” too.

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Robert Helbing, PE, is President of Air-Tro Heating and Air Conditioning Company. He is a Caltech-degreed aeronautical engineer (yes – a rocket scientist!), as well as a 4th generation contractor and 3rd generation engineer. He is a past-president of the Institute of Heating and Air Conditioning Industries (IHACI); Air Conditioning Contractors of America (ACCA) Contractor of the Year, 2011; and a 15-year member of Excellence Alliance Industries, a membership organization committed to the development and improvement of HVACR companies nationwide. Bob is also a founding member and past committee chair for the Western HVAC Performance Alliance, a council of stakeholders in the Energy industry which includes utilities, regulators, manufacturers and contractors. He currently serves on two committees for the WHPA: Commercial Quality Installation and the Existing Buildings Energy Efficiency. He can be reached at 626.357.3535 and bobhelbing@airtro.com.

For more information, visit our commercial section on the web at **airtro.com/commercial**