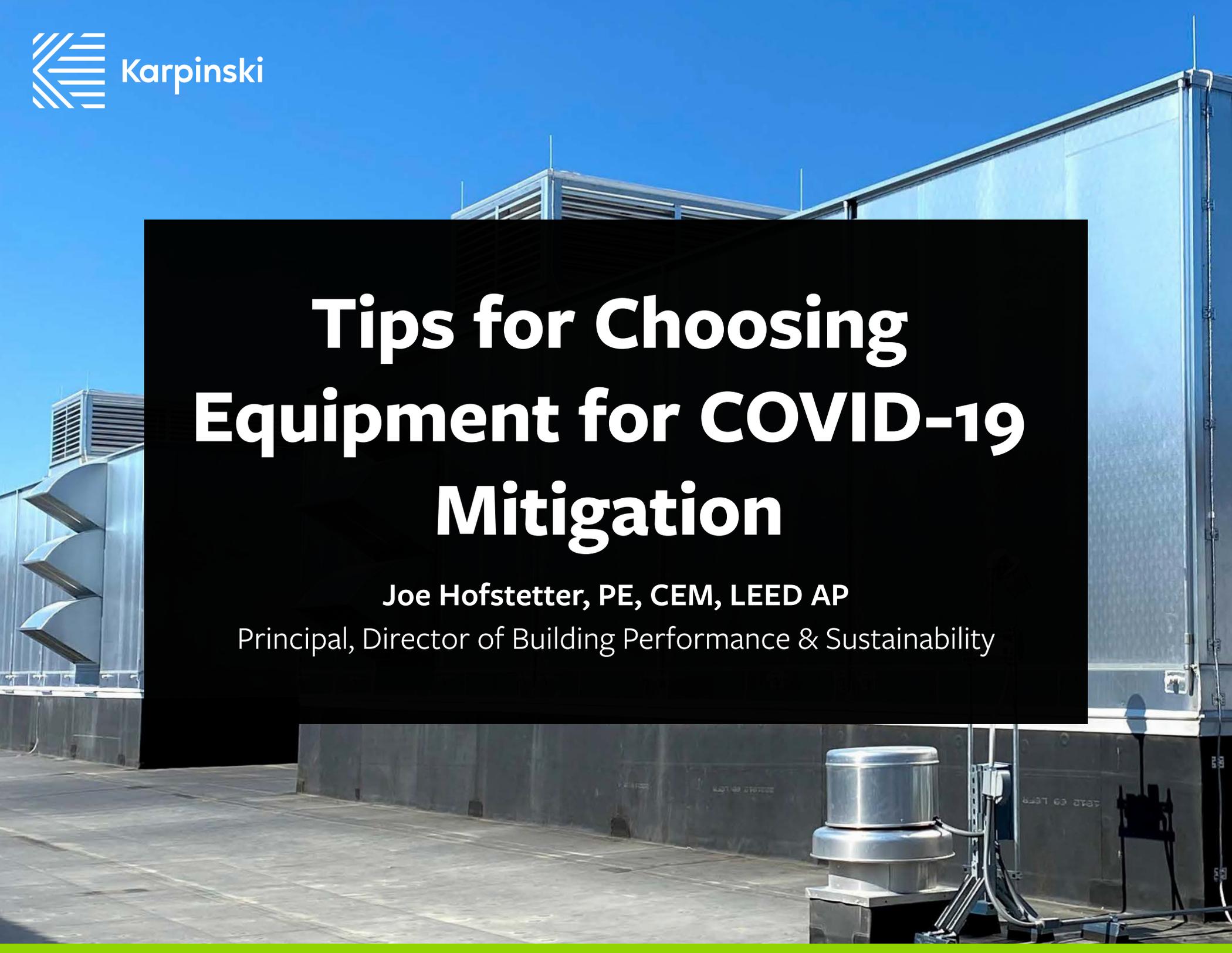
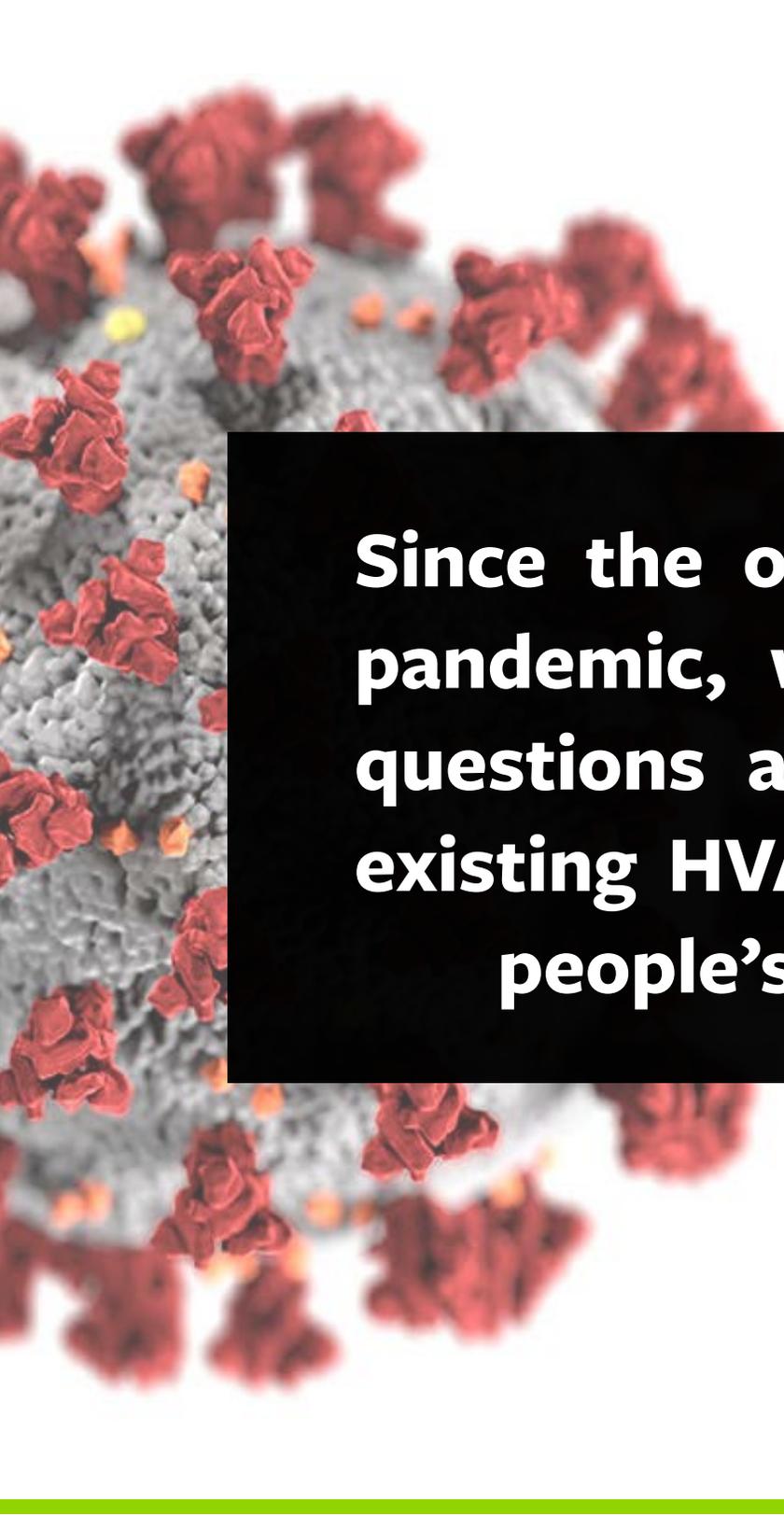


Tips for Choosing Equipment for COVID-19 Mitigation

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Since the onset of the COVID-19 pandemic, we've gotten a lot of questions about how to improve existing HVAC systems to protect people's health and safety.

Given the number of options available, we can appreciate that building owners may be uncertain about what option to choose.

When we evaluate COVID-19 mitigation measures, our goal is to pinpoint solutions that work for the specific building, integrate with existing systems, and are not burdensome for the owner.

In the following pages, we highlight 6 key points and offer tips to help you choose the best solutions for your facility.

A photograph of a modern office interior. In the center, a large black rectangular box contains the text "Is this solution appropriate for this building?" in white, bold, sans-serif font. The background shows a well-lit office space with a grey carpet, a white ceiling with recessed lights, and a wall with a decorative geometric pattern. On the left, a person is sitting at a desk with a laptop. On the right, a person is standing near a kitchen area with a white countertop and wooden cabinets. A large, white, cylindrical pendant light hangs from the ceiling on the left side.

**Is this solution
appropriate for
this building?**

To get the expected benefits, any solution needs to be compatible with your building's existing HVAC systems and functions.

Different products are designed for different settings, and some will be a better fit for your building than others. When evaluating options, the goal is to verify that the equipment will work as advertised in your building, with your HVAC system.

TIPS

- Verify that the product you have in mind is designed for your space type (e.g., school, office, etc.).
- Scrutinize the product information. What claims are the manufacturers making? What data backs up their claims?

A photograph of an office ceiling with a grid of acoustic tiles. Several rectangular ventilation diffusers are installed, some with lights integrated into them. A fire alarm pull station is visible on the ceiling. A black rectangular box with white text is overlaid in the center. The background shows office cubicles with glass doors and blue acoustic panels.

**Is your ventilation
strategy helping
or hurting?**

Ventilation is an important COVID-19 mitigation strategy, but be careful that *ventilation* doesn't get confused with *air circulation*.

Typical HVAC systems allocate a portion of their total airflow to fresh air (ventilation). If the plan is to increase ventilation by introducing more circulating air within the space, this could create unnecessary drafts and air currents, which could increase the movement of air from one person to another. While you might reduce the overall particulate concentration in the air, you could increase person-to-person transfer.

TIPS

- When increasing ventilation, increase the portion of fresh air intake while maintaining the volume of circulating air.
- If you increase ventilation by introducing more circulating air, be mindful of any drafts or breezes that result.

A man with a beard and glasses, wearing a dark suit jacket and a striped shirt, is looking at a white tablet. The tablet screen shows a data dashboard with a pie chart labeled 'Item 3' at the top, a horizontal bar chart below it with values 30, 0, and 15, and a grouped bar chart at the bottom with labels 'Item 2', 'Item 3', and 'Item 4'. A large black text box is overlaid on the center of the image.

**What's the impact
on my utility bills?**

Adding new equipment can increase your building's overall energy use in two ways, and it's good to know ahead of time.

First, the product itself may use energy. Different products can use drastically different amounts of energy.

Second, your system operation might need to change for the product to be effective, and those changes can increase energy usage.

TIPS

- Review the manufacturer's operating recommendations for any equipment that you're considering. ASHRAE's [Building Readiness Guidelines](#) can also help you determine the appropriate system operations.
- For solutions like bipolar ionization or ultraviolet germicidal irradiation (UVGI), it's worth giving thought to the appropriate system operations for your building. That way, you can implement a sequence of operations that doesn't overtax your utilities.
- If you have questions about how a piece of equipment will work in your building, consult an engineering professional.



**What are the
maintenance
requirements?**

To maximize the effectiveness of your mitigation strategies, proper maintenance is essential.

Any product will likely have specific maintenance requirements. Adding new products can also affect your existing system's maintenance requirements.

TIPS

- Review the maintenance requirements of any product you install. Examples include the life expectancy filters, the frequency of changing UV lightbulbs, and the cleaning schedule for non-self-cleaning needlepoint bipolar ionization equipment.
- If you install a product that results in your HVAC system running more frequently, you'll want to adjust your maintenance schedule accordingly. Tasks that might need to be performed more frequently include lubricating fan bearings, replacing belts, and changing air filters.

A photograph of a mechanical room. The ceiling is covered with a complex network of white PVC pipes, some with gauges and valves. Below the pipes, there are large metal HVAC units. In the foreground, a large, grey metal cabinet with a door is visible. The door has a small window and several warning labels, including one with a yellow triangle and the word 'DANGER'. The floor is concrete, and there is a drain cover near the base of the cabinet. The overall scene is industrial and technical.

**Will this solution
affect HVAC
equipment life?**

Mitigation strategies have implications for overall system and equipment longevity.

Depending on the strategy, your HVAC systems will run more frequently. As a result, your HVAC equipment will reach the end of its useful life more quickly.

TIPS

- Consider whether you need to update your capital plan/budget to allow for earlier equipment replacement.

A photograph of a man and a young girl washing their hands at a kitchen sink. The man is standing behind the girl, looking down at her hands as she rubs a bar of soap. The girl is wearing a pink sleeveless top. The sink is white, and there is a silver faucet with water running. In the background, there are kitchen cabinets and a window with a plant. A black rectangular box with white text is overlaid on the center of the image.

**These solutions
supplement other
mitigation efforts**

We've been asked whether people can stop wearing face masks if the HVAC system has advanced filtration or other air cleaning devices. The answer is "no."

Any new equipment or changes to system operations supplement existing mitigation efforts. They don't replace practices recommended by the CDC such as frequent handwashing, wearing face masks, regular surface cleaning, and social distancing.

At the end of the day, the goal of all COVID-19 mitigation strategies is to protect people and stop the spread of disease. Whatever option you choose, we want you to be successful.

TIPS

- Continue following the relevant guidelines issues by the federal government/CDC, state, and local governments.

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