



Selling Management on HVAC Upgrades

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Your building may be heating and cooling ok now but your HVAC systems are getting older, and the question is, should you wait for them to fail on you, or should you start convincing your management about replacement before you have real problems. This could mean sending people home, lost revenue, possibly losing tenants. Not good in today's environment where every space that is occupied is so very important.

Facilities or property managers are confronted by this question, but putting a plan together with a justification is an effective way to get an audience with your upper management. Just telling them the equipment is beyond its useful life in it's current condition is not good enough. You need to have a plan to prove the value of the project so it will make the capital improvement plan. Done correctly it can make you look good and improve your position by confirming you are doing your job and taking care of business.

According to statistics gathered by the Building Owners and Managers Association BOMA the two highest tenant complaint areas are HVAC and Housekeeping. Everything else pales in comparison. If you can't keep the building temperature in a normal range, you can't have happy and productive tenants.

The challenge is to reveal the unseen HVAC equipment. When running properly it is out of sight and out of mind, but it represents the heart and soul of being too cold, hot, or stuffy. Your service call activity may go up because you're on top of taking care of the, now more frequent failures, but this can only take you so far before the large, costly, and long shut down that is looming in the future will come.

You can get by for a while with work around solutions to your immediate problems with your HVAC service provider. However, these creative solutions can take the equipment outside of its intended manufacture's operating parameters causing the equipment to work harder. Raising fan speeds or improperly adjusting valves to compensate will cause equipment to run harder using more energy, increasing your electricity costs, and may cause equipment to fail even sooner. The real solution is to put an action plan together for management before you have a real disaster on your hands. You must put the three following components in action:

1. Keep good documentation



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2. Monitor Tenant Complaints
3. Do your homework

First of all keep good documentation. Documentation of chiller or HVAC logs, repair work that is taking place, and energy costs. Also verify your maintenance program is in place, and that maintenance items are being taken care of. The first thought your management will have is, has the equipment been properly maintained. You know maintenance will only take you so far on aging equipment, but upper management may not view it that way.

Use a spread sheet to calculate the service call activity and cost over time. Or if you have an in-house maintenance tracking system with reporting functions this will also give you valuable information. By keeping records and using a spread sheet over, let's say two to three years, you should have a clear picture of your costs. You can put this in a chart to show the increases over time.

Along with the service documentation, you should also keep track of your electricity costs. By putting your energy costs on a chart over time, you should be able to coincide the costs with the aging HVAC system. This information will also be valuable to show savings gained with an efficient modernization or new equipment installed. An HVAC provider with the expertise and engineering background should be able to provide you with the energy cost savings based on your current system vs. a modernization or a new system. This represents a real payback value proposition.

Second monitor and document complaints from your tenants. If there is a risk of losing tenant satisfaction, there is a risk of losing tenants.

This goes beyond just the complaining tenant. Get real hard information. Does the complaint involve smells, water leaking, a possible mold creating environment due to a lack of proper dehumidification as a result of a poor running system. This is hard evidence that will give you ammunition on the environmental front, not to mention building deterioration. More importantly this represents liability exposure for management or the owners, which can represent real dollars in the form of building repairs due to damage or even lawsuits from tenants.

Third do your homework by getting a solution and budget information from an HVAC provider that has the background and engineering expertise to find the best solution for your needs. Some HVAC companies have the capability to provide you cost benefit analysis by comparing the operation of your current system with a modernization or new system. Original equipment manufacturers can only provide you with their equipment solution while most Independent HVAC companies can only provide you with solutions based on their level of



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expertise. However, the few and best Independent HVAC companies have an expanded level of expertise and network of support and product providers that can provide an analysis and plan based on your needs, and can take full advantage of the best manufactures technology solution for you for equipment modernization or new equipment. These few Independents truly have their customer's interests in mind, they make it their business.

Now put your plan together and ask to present it to your management. The key components of a successful presentation to management contain the following criteria:

- Energy Efficiency & Cost Savings
 - How are we going to save?
- Reliability
 - Are we having more frequent and costly shutdowns?
- Code Compliance
 - Is the unit violating a building or health code?
- Capacity
 - Have loads or its output changed and it's now underperforming?
- Liability
 - Could a failure cause a lawsuit, insurance claim, or damage products or furnishings?
- Tenant satisfaction
 - Could replacing it improve tenant service quality?

Energy efficiency and cost savings. If your system is fifteen years or older there should be an energy savings gained with an energy efficient modernization or newer technology. That is why it is so important to have records of your energy costs and a cost/benefit analysis made by comparing the modernization or installation of a new HVAC system with your current system. Also there could be dollars gained in the form of energy rebates from local, state or federal government. Other financial savings opportunities can be in the form of utility rebates, tax credits, and accelerated depreciation. Furthermore, depending on the type of system you currently have and the kind of upgrade you get, you can have as low as a two year payback. This will make the project much easier for senior management to accept and fund.

Reliability, or reduced shut downs and even maintenance costs. Reliability is a key factor to bring up as part the value proposition, because it not only brings the repair costs down, but it should also, depending on the system, reduce your maintenance costs as well. This should be documented in your cost/benefit analysis, as it also shows savings.



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Code Compliance. A modernization or newer technology is not only more energy efficient, but also complies with current government regulations for reducing or eliminating CFC's and other chemicals that pose a threat to the environment. This can also add value to the property itself as it is part of the building infrastructure.

Capacity, are we getting the performance for the building? This is very important as buildings go through changes with tenant populations over the years, with only minor upgrades being made to compensate for air and comfort control. Also an area that can be overlooked is the overall original design of the system with its individual components. The building may not have been engineered originally for optimum performance. Let me explain. Each individual piece of equipment was engineered and factory assembled to specifications. However, the components, when installed in the field, may not have been installed to the specification but to the interpretation of the specification. Or, and more importantly, the building engineering of the field assembly of components, may not have been thoroughly optimal for the building. This is through no fault of engineering, but rather a combination of approaches to design and technology at the time with the full understanding of its capability.

These issues may have been known through the years but never addressed because of cost, or it may be revealed with a comprehensive survey and analysis. Either way a case can be made that an improvement is a value proposition to protect the building and provide quality and comfort for tenant retention.

Liability exposure. It cannot go without saying that if your current system is not performing and you have longer shut downs, this can turn into real dollars lost. If you have to relocate tenants for a period of time for repairs or office space is flooded causing property damage, more importantly, your tenant's mission critical business information is damaged. You expose yourself to these costs even possible lawsuits as a result.

Ultimately you want complete tenant satisfaction. This is the priceless part of the value proposition. Actually it is not, because you want to retain and attract tenants to your building and this represents leasing dollars. Furthermore, a quality comfort and air controlled environment can be a healthy one that can increase productivity.

Asking for a large capital outlay is not to be taken lightly and you should approach it as a business case. Put your case together and ask for a meeting so it can be documented. Describe the opportunity briefly, quantify the risks and benefits, and recommend how these gains will be achieved. Ask your



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purchasing department or chief financial officer for guidance on how funding has been achieved with other successful projects, and for a copy as a template to help you.

Some tips to presenting this plan would be to briefly explain how the system operates under normal conditions then talk about the problem areas. Make use of a camera and take pictures of the problem areas to show senior management, as they may not want to poke around the inner workings of the HVAC equipment or plant environment. Also you must stress two or more reasons for the upgrade. A single reason may not get it into the budget. You will have to relate each of the reasons back to a benefit in terms of cost savings either directly as in electrical cost savings, or indirectly as in liability exposure or paying for things you don't need to. Don't use complex technical jargon, but rather your company's business language. Also, don't hesitate to get a qualified HVAC company involved to help you with your pitch. Following these tips will increase the likelihood of approval.

Concentrate on the positive benefits rather than the negative consequences of the upgrade. Instead of pointing out the lost productivity by sending employees home with a shut down, show the productivity costs with the building running under normal operation.

Do discuss the potential problems that can occur if the upgrade is not made, but you should do this without the emotion. But rather approach it as a response to a disaster scenario. For example during this unscheduled shut down we would have to relocate tenants or employees for X number of days or may have to replace damaged furniture from flooding. If you do not have a disaster plan and your upgrade proposal will not be taken into consideration then recommend an emergency contingency plan. This, in and of itself may make the problem more real and have to be addressed.

Ask for minutes of the meeting to be made and dated so that you will be documented with management and that they know of the risks of not performing the upgrade so it will protect your position when problems do occur. Also by making this a formal written proposal with the risks of not performing it documented, it may have much closer and serious consideration for senior management.

Good luck!

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