

A Better Way to Budget

Using Performance to Understand a Building's Expenses

One of the most important parts of any building's budget is capital expenditures for equipment. Unfortunately, it is also one of the hardest to quantify. In a perfect world, the age of every unit would be an indicator of future life expectancy. But as anyone who deals with systems—mechanical or digital—knows, the world is far from perfect.

So, how can we find a more nuanced, precise way to understand what will need to be replaced or upgraded, and when? How do we plan for the future expenditures of a building? How can we make our understanding of building systems more granular and therefore useful?

We think that this comes from going above and beyond the ASHRAE recommendations, as well researched as they may be. A recent report by The ARC Advisory Group suggests that a shocking 82% of malfunctions are completely random. Operational timelines are useful but we think that they should be supplemented with usage and performance data in order to give the most accurate assessment of an equipment's risk of failure. We like to look at each piece of equipment separately, examining its performance over time and identify the impact of replacing the equipment on building performance. We also take a look at each replacement component within the equipment.

Take an HVAC system, for example. You might think that an old boiler is in desperate need of replacement since it is quickly reaching the end of its recommended useful life, when in fact a malfunctioning thermostat might be already causing problems and should be a priority when it comes to budgeting.

Pure rules-based maintenance and replacement will soon be a thing of the past. Now, with condition-based analytics, owners can make better decisions about when to allocate CapEx to HVAC expenditure, and can certainly avoid spending money unnecessarily on premature upgrades.

This doesn't mean that we have a crystal ball, of course. But, we can do a lot better when it comes to scheduling equipment replacements and budgeting for a building's expenditures.

We think it is important that asset managers, property managers, and facility teams bring this information into frame when making budget/CapEx decisions, so we have created a report that factors in component upgrades and provides equipment specific recommendations. We feel like this is the best way to understand a building, plan for the future and budget for the problems that seem to be an inevitable part of an imperfect world.

