



Crunching the Numbers of Tenant Submetering Waste

Before submetering, many landlords either included utility costs in the price of the lease, or divided the utility usage among the tenants by square footage.

Now, many commercial properties utilize meters on tenant spaces to determine individual usage levels and bill each tenant for their share of total building consumption. In most cases, a third party reads the meters and sends the invoices, and possibly even collects for the service.

In recent years, advanced meters capable of real-time meter readings have enabled submetering services to become completely digitized and automated.

As the options to distribute expenses to tenants has evolved, return on investment has naturally arisen as the centerpiece of the discussion on whether to upgrade services.

With submetering increasingly becoming common practice, and even mandatory in places like New York due to Local Law 88, more landlords are looking for hard numbers around tenant submetering waste.

There is no reliable database on the costs associated with submetering tenants, making it difficult to find hard numbers on the savings that can be accrued through automation and digitization.

Nevertheless, this paper uses all available sources to quantify the costs associated with manual and outdated submetering infrastructures, as well as the savings that can be realized by switching to an automated service.

Manual Submetering

The submetering infrastructure for many commercial real estate properties is stuck in the past. Buildings fitted with analog meters require a process that is inefficient, inaccurate, frustrating and costly.

In this setup, a meter reader must go to each building of a portfolio and physically write down the numbers displayed on the meters. After the numbers are recorded manually, the data must then be transcribed into a spreadsheet and passed back to the management company.

In addition to reading errors, inaccuracies can manifest through transcription from one source to another, and versioning issues with static documents being passed between parties.

In terms of record keeping, manual readings and paper bills tend to lead to shelves full of binders. While necessary in case a dispute occurs, these records are costly in terms of space, materials, and the time it takes to find specific information.

The cost of these manual processes adds up. There is an average delay of 30–45 days between the end of the billing period and when costs get recovered.

In addition, the disconnect between tenant billing and normal accounting adds additional work and duplicates effort unnecessarily.

Outdated Digital Infrastructure

As outlined above, there are a lot of problems with manual meter readings from analog meters, and that setup should be avoided. But even digital submeters can have deficiencies that have a direct cost to a portfolio's profitability.

Often, the company in charge of submetering is selected by the design engineer because they provide cheap hardware and have been around for decades.

Because of this, many submetering providers install outdated technology.

While modern technologies support real-time meter readings and visualizations of consumption data for property managers, the digital readings on outdated systems are usually performed daily. Daily readings are certainly an improvement over once per month but do not provide the level of granularity necessary to improve the net operating income of a property.

For example, understanding and predicting utility spend in the middle of the month can help property managers adjust before the bill finally comes. Important factors in

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utility costs, such as peak demand, is simply impossible to account for with daily readings.

If there are premiums or discounts on utility costs in the lease, a lack of granularity can sometimes lead to undercharging tenants, which directly hurts the bottom line of a property.

On the other hand, readings taken in real time allow managers to get a clear view of what is happening in their building, and make decisions accordingly. Having access to this data can prove to be very helpful when tenants complain about overbilling. A property manager can share a detailed breakdown of their consumption over the period in question to quickly resolve the dispute with actual data.

In addition, outdated digital infrastructures are usually “closed” systems. This means that the vendor's meters use closed protocols and no other system can access the data. Most modern infrastructures are built to be “open,” meaning that the data is available to be consumed by additional sources, including the landlord, other vendors, and ancillary software systems.

Most important for landlords and property managers, having the data open allows integration with existing accounting and property management systems, which reduces manual transcription of data, and the associated errors that occur.

Finally, outdated digital infrastructure services may charge “nominal fees” tenant move-ins/move-outs in the middle of a billing period. Generally, the fee is for paying someone at the servicing vendor to do manually calculate the correct allocation for different tenants, despite the digital output of the meters.

Hard Costs

There are multiple hard costs associated with manual sub-metering and old submetering infrastructure.

Collection

The first hard cost is associated with the time and labor involved in conducting readings. One estimate puts this cost at \$33 per meter.

For an office building with 25 tenants, this cost adds up to nearly \$10,000 a year just to read meters. These expenses can be completely removed with digital, cloud-connected meters.

In addition, this figure does not account for the elimination of inaccuracies associated with manual meter readings. While there are no hard numbers available for this cost, anecdotal evidence from property managers suggests that the frustration and lost productivity due to fixing errors is not an insignificant source of waste.

Cash Reserves & Interest

The process of reading meters, transcribing data, allocating costs, printing and sending invoices, and collecting payments can take between 30–45 days from the end of the billing period. Because of this, the landlords usually pay the utility company first and wait to get reimbursed from tenants.

Because of the delay, landlords can't wait until the last tenant covers their bill before paying the utility company. Thus, they are forced to have a large stock pile of cash each month.

This means that they must forego other uses of that cash. Assuming a building pays \$20,000 in utility costs per month, they are essentially foregoing the interest on \$240,000 every year to front tenants' utility bills. The interest from this money could add up to nearly \$10,000 per year.

Alternatively, instead of interest, these cost outlays could be put towards productive investments if they were recovered quickly after the billing period through automation. The stockpile of cash that could be put towards renovations to command higher market prices, capital expenditures to upgrade equipment (and save operating costs), or a multitude of other ways. The opportunity cost of slow cost outlay recovery is a major source of waste in tenant submetering.

Accounting

Whether submetering is performed in-house or through a third-party vendor, and whether the vendor uses analog meters or outdated digital meters, there are accounting costs associated with submetering.

Most estimates put the time it takes for an in-house accountant to perform all the functions related to tenant submetering at 10% of their total time.

This includes transcribing cost data from the third-party vendor into the accounting systems, generating invoices, and organizing invoices for record-keeping purposes.

If an in-house accountant makes \$50,000 a year, this could cost an organization \$5,000 a year in unnecessary labor spent on tenant submetering.

Adjustments

If there is a mid-month move-in and move-out, landlords usually must front the money in the hopes of resolving it later. In some cases, the landlord calls the reader that day to take the reading. If they can't give the bill to the tenant on the day of the move-out, time and money are spent on collection.

If there is no reading on the day of the move-out, the landlord must make estimations, opening themselves up to more disputes, or potentially not collecting the full costs.

With a continuous data stream, the day the tenant moves out is the day the service provider ends the cycle, and costs can be accurately split up between the two tenants and invoiced on the day of the move-out.

The costs of the additional reading and collection time can add up to \$3,000 per move out. While this is not a major cost on the balance sheet, it is unnecessary and frustrating.

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Disputes

Disputes with tenants over invoices that are too high can become very frustrating and costly. If tenants think they have been metered incorrectly, they may decide to go back on the landlord. While this generally only happens with larger tenants, disputes of any size can become disruptive to business.

If there is a suspicion that tenants have paid too much for utilities because metering was set up incorrectly, they may sue for the difference. Again, this is an extreme scenario, but it does happen.

While there is no data for the difference paid to tenants who dispute bills, or the average legal fees involved in commercial utility cost dispute, most businesses know to avoid legal fees at all costs.

Disputes can be completely avoided with modern submetering infrastructures. Because readings are taken in real-time and uploaded to the cloud continuously, any dispute can be quickly resolved by going to the data. In addition, more advanced submetering solutions provide tenants with their own portal, so they can view their own consumption in real time, and do not even need to request data from the landlord.

Soft Costs

The alternative to manual or outdated submetering solutions can save more than direct costs associated with submetering.

By reading tenants' consumption in real time, bills can be produced and sent to tenants in a timely manner. Because readings are uploaded continuously, bills are always accurate. Even better, because the hardware is open, the invoices are automatically imported into the existing accounting system to save time on the back end. The money saved is instead used on productive improvements to the building and the tenant experience.

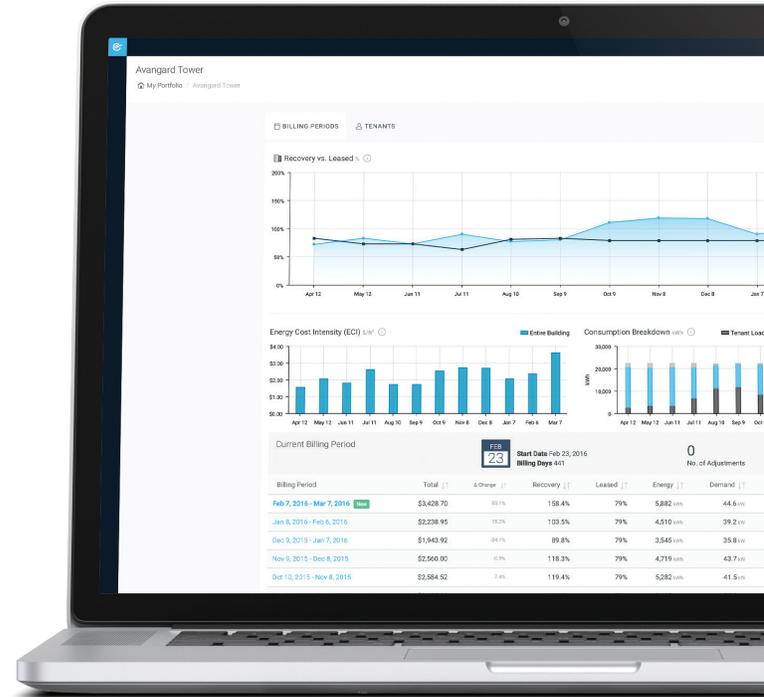
In addition, younger and more tech-savvy tenants are starting to demand transparency into their own utility costs. According to a recent Freddie Mac survey, tenants are more worried about escalating utility bills than rising rent: 70% vs. 63% respectively.

Combining real-time data with software allows landlords to transform electric submetering into a tenant amenity. Services such as alerts to tenants of peak demand or when they are running their appliances during off-hours can help tenants keep their energy costs down and even command a premium in competitive markets.

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Conclusion

There is certainly an upfront cost for upgrading the submetering infrastructure. However, when all the hard costs are added together, the payback period can be very short.

Adding the costs associated with collection, long cost outlay recovery, disputes, accounting and adjustments, an average commercial property can save as much as \$25,000 a year by switching over to an advanced submetering solution, with the added benefit of avoiding costly legal disputes and collection costs chasing down tenants who have moved-out.

Depending on the number of tenants in a building, these savings can pay for the upgrade in around one year.

Beyond the hard costs, the soft costs associated with funds being freed up for productive investments, as well as tenant satisfaction engagement opportunities should be factored into the decision-making process.

The soft costs may have an even larger effect on net operating income and asset value than the hard costs. Creating a premium experience for tenants not only commands higher market rates, it reduces the chances of vacancies, which keeps a property sustainably profitable.