



P3 Utility Auditing:

The Ultimate Guide to Reducing
Utility Costs for Your Business



When businesses first consider ways to cut utility costs, they typically think in terms of reducing usage. From installing energy efficient light bulbs and switches to lowering water consumption, these tactics are often the only thoughts that come to mind. And though reducing usage is a good practice, businesses are missing many savings opportunities on utilities by assuming that utilities costs themselves are largely fixed.

With the utility industry being highly regulated, it's easy to see why many companies fall under the fixed cost assumption. Because utility tariffs and fees are so complex, unless you have a utility expert looking under the hood of your utility statements and actually knowing what to look for, there are many errors and overcharges that will go unnoticed.

To see any real change in utility savings, a deep audit of your records and statements is a necessity. Some may think they have people in-house that are already monitoring for errors, but the fact is, utility cost auditing requires specialty training that is never their core competency.

In this white paper, we will outline how the utility industry functions, explore the types of errors and overcharges that go unnoticed, reveal how our experts at P3 Cost Analysts work through an auditing process, and share some examples of tangible savings we discover for clients.



Understanding the Difference Between Regulated and Deregulated Utility Markets

Most businesses may know whether or not they operate in a regulated or deregulated energy market. If their energy provider has a government granted monopoly in the state or region, then they're in a regulated market. If multiple providers compete to be their energy provider, they're in a deregulated market. The type of market a business functions in depends on the state in which they're located, with the majority of states operating in a regulated market.

In regulated markets, the utility provider is a single entity that handles the entire supply chain of energy. In deregulated markets, on the other hand, while there may still be one main energy provider, they can sell energy to multiple third parties, who set their own rates and become the energy suppliers for the business. In either regulated or deregulated markets, it's always up to the consumer, not the vendor, to find savings.

The Role of Tariffs

Energy tariffs apply to both regulated and deregulated markets and dictate how much energy suppliers charge customers based on their type of industry, usage, time of usage, and many other factors outlined in lengthy and complex documents.

It's highly difficult (if not impossible) for non-experts to understand how these tariffs are billed because there are so many provisions, and they're written for the utility company, not for the customer to understand. You can [click here](#) to try and calculate a simple electric bill. You also automatically get billed for all tariff riders unless you take action to opt out. And even when you do take action to opt out, the utility company might tell you that you'll lose other benefits if you do not implement changes correctly.

For example:

A manufacturing company may qualify for a lower tier of billing if 40% of their energy usage comes from natural gas. However, this incentive only applies if the business is using that natural gas at certain times of the day. As such, if the business isn't aware of the incentive or doesn't have the right tracking systems in place to take advantage of the incentive, they may miss out on savings.

Types of Errors Discovered and Corrected in The Billing Process

All of the errors found in the billing process are based on algorithms, numbers, improper calculations, and impossibilities. With our expertise, we understand what the utility companies are liable for in regards to errors. This allows us to determine whether refunds are applicable or not and to prove to the utility company how a certain error occurred within their own regulations.

Electric Billing Errors

Hours Used Error

Hours used can be defined as the number of hours you used your electricity based on your peak demand.

For example:

If a company uses 50,000 kWh and has a peak demand of 100kW, the hours used is 500 ($50,000/100 = 500$). In a 30-day bill cycle, there is a maximum of 720 hours (24 hours x 30 days). If the hours used in a 30-day bill cycle computes 750 hours, it simply is an impossibility, and we know there is an error.





Load Factor Error

This efficiency percentage can never be greater than 100%. Thus, if the load factor calculation the utility company presents is over 100%, there is a clear error.

Estimated Demand Error

Utility companies are allowed to estimate bills based on the history of the business' electrical usage, but that estimate can be wrong upon closer inspection of the records. One area we look at is estimated demands. "Demand" is the highest amount of energy, measured in kilowatts of kilovolts, that a company uses over a short period of time. Many electric meters require the demand to be reset to zero after each meter read.

For example:

If the estimated demand is 100 kW, but the previous actual meter read was 90 kW and the next actual read was 70 kW, we know it's impossible for the demand to be 100 kW this time because they must not have reset the meter after the previous reading.

Misapplied Demand Ratchets

A demand ratchet is the percentage of your peak demand that you have to pay each month even if you don't use that energy. We look for times when the demand reading might trigger a demand ratchet or other multipliers that bring the client into a higher tier for kilowatt charges and make the necessary changes to fall under the correct tier. Without these fixes, a client could stay in the wrong pricing tier for up to 12 months, leading to many extra charges.

These percentages vary, and if you do not understand them, you can fall into a higher ratchet than you need to be.

For example:

A company is currently paying 100% of their demand ratchet. But since they heat their buildings with 100% electricity instead of gas, their tariff allows them to pay a 50% demand ratchet. Until this gets noticed, they will be wasting a lot of money that they don't need to.



Water Billing Errors

Incorrect Sewage Billing

In most water billing errors, there's an issue with how a company is being billed for their sewage. Sewage billing is based on a percentage of water consumption, which in many states is 100%. Some companies, however, are billed at 100% of water consumption when in fact not all of their water is going into sewage.

For example:

Breweries use large quantities of water to brew their beer, but that water isn't going back into sewage - it's going out into the tap room and out the door in cans. Thus, they shouldn't be charged 100% for sewage based on how they use their water.

Meter Reading Errors

Many municipalities use computers to read the meters. If the data is not entered into the computer correctly on the front end, or if the computer simply makes an error, overcharges can occur.

For example:

We went to work for one client and noticed the water meter was being read correctly. However, due to an error in the software, the sewer usage was being calculated at a rate of 10x. Thus, while the fees and readings themselves were accurate, the usage calculation was not. This resulted in a 10x overcharge on the client's sewer fees.

Gas Billing Errors

Faulty Contracts

Most of the errors with gas involve the utility company not billing based on the contractual terms. A customer will enter into a contract with a utility company, but the utility company won't act according to the contractual terms.

Automatic Tariff Changes

With some tariffs and regions, the tariffs are set to change automatically. This means that if usage falls or increases, a customer may be moved or 'defaulted' into a lower or higher tariff bracket. Generally, this will result in the most cost-effective rate for the customer. However, these automatic changes routinely fail to occur. Only through a deep analysis of historical usage can a customer determine if an error has occurred.

For example:

We had one client who had four different natural gas accounts. Two of them were billed on the General Large tariff and two of them were billed on the General Small tariff. The usage, however, indicated that all four accounts should have been billed on the General Small tariff.

The vendor initially fought this claim, as they did not want to issue a refund for the mistake or reduce their revenue. However, after escalating the claim up to the vendor's senior management, we were able to recover the overcharge,

The P3 Utility Auditing Process

When you consider the complexity of tariffs and the numerous errors that can occur in the utility billing process, it makes sense to do a deep audit and reap the savings of doing so. With the P3 Utility Auditing solution, you can take advantage of this auditing process risk free. There's no charge for the hundreds of hours of upfront auditing time by our experts. We simply receive 50% of the savings we find for a period of 60 months. About 99% of the time, clients allow us to implement what we find because our recommendations make sense and produce real savings.

Note: The process below mostly applies to companies in regulated markets. In deregulated markets, P3 simply acts as an energy broker monitoring the market, knowing the best time to lock in a contract, and receiving a small commission on these arrangements. There are still opportunities to find billing errors, but we don't share in the kilowatt per hour rate reductions like we do in regulated markets.

STEP 1 Engagement

We schedule a 15-20 minute meeting to explain our shared savings agreement and the materials we need to get started, including copies of invoices and authorization documents.

STEP 2 Onboarding

We work with the client to gain access to 12 - 36 months of invoices, depending on the statute of limitations in their state (often, if we have the vendor online logins, we may only need a single invoice).

STEP 3 Audit

Our experts start dissecting invoices and provide the client with weekly or bi-weekly updates on overcharges and errors found. We also deliver these savings as we go instead of waiting until the end of the audit.

This phase can take anywhere from 4-6 weeks to get the initial results for a mid-size client, and then once these findings are represented to the client, it can take another 4-6 weeks to get those savings implemented, depending on which part of the billing cycle we step in.

STEP 4 Ongoing Auditing

After the initial audit, we move into the ongoing auditing phase where we monitor invoices every month and make sure errors don't continue to appear and that the savings are intact.



Misconceptions about Using the P3 Utility Auditing Solution

In some cases, clients have been in business for decades and think that what they're doing "works" and they don't need to change anything. Some may also look at the P3 Utility Auditing solution as "too good to be true," leading to general skepticism about the offering.

Others believe the people they have in-house monitoring utility charges are sufficient. The controller or accounts payable department is typically the one in charge of managing this, but this area is never anyone's core competency. While these people have hundreds of other things on their plates, they may worry about us making them look bad when we find many savings that went unnoticed previously.

In response to these objections, it should be clarified that our sole purpose is to optimize savings, and that the time and expertise involved to audit these correctly is immense. What companies are already doing may work to an extent, but we have the expertise to take savings to the next level. We provide a valuable service that supplements and supports our clients moving forward. It's a win-win relationship that has proven results.

Utility Auditing is Your Key to Reducing Costs for Your Business

Through this analysis, it has become clear that achieving real savings on utilities is complex. Between all the nuances with tariffs and billing, it's difficult for customers to find these savings on their own. Luckily, with the help of utility auditing experts, a number of errors can be discovered through a detailed audit leading to many savings. And the best part of this process is that it's risk free, with no upfront charges and only savings.



P3 Cost Analysts_®